Final Report

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Philadelphia District
Contract No. DACW61-94-D-0013
Delivery Orders 0005, 0006 & 0009

Results of Berthing Area Vibracore Sampling along the Delaware River from Beckett Street Terminal in Camden, NJ to Sun Oil Refinery in Marcus Hook, PA

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Executive Summary

BLACK & VEATCH Waste Science, Inc. (BVWS) collected sediment samples for laboratory analysis from 16 locations in seven berthing areas along the Delaware River between Camden, New Jersey, and Marcus Hook, Pennsylvania from April 30 to May 3, 1995. The berthing areas and approximate sampling locations were preselected by the Corps. Collection of samples up to a depth of ten feet below the riverbed was accomplished using a ship-based rig-mounted Vibracore device.

In most of the study areas, alternating layers of very soft to soft organic silty clay and gray sand were encountered. At the Beckett Street Terminal site, a thin sand layer was present over a layer of clay and silty fine sand, possibly the Raritan Formation. At the Sun Oil-Marcus Hook study area very dense layers of sand and gravel (some of which were fill) were encountered and very little sample was recovered. Detailed boring logs for all study areas are provided in Appendix A.

Thirty-five samples were submitted to Nytest Environmental, Inc. for laboratory analyses. Samples were analyzed for organic and inorganic parameters using both bulk sediment and elutriate procedures.

Bulk sediment samples were analyzed for metals, pesticides, PCBs, alcohols, aldehydes, volatile and semivolatile organic compounds, total organic carbon, and grain size analysis. Elutriate samples were prepared using sediment samples and Delaware River water according to the procedure developed by the Corps. The elutriate samples were analyzed for specific total and dissolved metals, pesticides, PCBs, alcohols, aldehydes, semivolatile organic compounds, and volatile organic compounds (total only). Water from the Delaware River was collected for preparation of elutriates and for analysis of total constituents, including metals, pesticides, PCBs, alcohols, aldehydes, semivolatile organic compounds, and volatile organic compounds.

Bulk sediment and elutriate sample data were compared to initial screening levels provided by the Corps. The screening values were chosen by the Corps, and taken from ecological risk and human health risk studies. At most sampling locations, volatile organics and pesticides were not detected in both bulk sediment and elutriate testing samples. Semivolatile organic compounds were present in individual sediment samples taken at Beckett Street Terminal, Conrail, Packer Avenue Terminal, Sun Oil-Ft. Mifflin, and Sun Oil-Hog Island locations. Chemical concentrations exceeding bulk sediment screening levels ranged from below the laboratory detection limits to several parts per million (ppm). Aroclor-1254 was also detected in samples from the above locations. The highest concentration of Aroclor-1254 (0.55 ppm) was found in sample SFM-1-95-C-1.0 at the Sun Oil-Fort Mifflin facility. Metals detected in sediments with concentrations exceeding the screening levels included arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, thallium, and zinc. Results of the elutriate analyses indicated that

the elutriates had up to ten metals exceeding the acute water quality criteria. No other contaminants were detected in the elutriates at levels above the screening levels. There were no contaminants present in the river water sample with levels that exceeded the acute water quality criteria.

The Corps procedure for "compliance averaging" was utilized for sample results that exceeded the initial screening levels. The average of individual sample results was obtained for respective berthing areas and for all berthing areas combined.

Bulk Sediments

The bulk sediment compliance averaging results were compared to criteria values obtained from the New Jersey Department of Environmental Protection (NJDEP) Soil Cleanup Criteria which are separated into three categories: Residential Direct Contact, Non-Residential Direct Contact, and Impact to Groundwater. The Residential and Non-Residential criteria were established to address human health risks based on direct contact, while the Impact to Groundwater criteria were established to address the potential impact that a contaminant may have on the groundwater beneath a site.

Compliance averaging of the constituents detected at concentrations above the initial screening levels and subsequent comparison to the NJDEP Soil Cleanup Criteria revealed that 13 organic and eight inorganic constituents that were found above the initial screening levels in individual samples, when compliance averaged, were found at concentrations below the most stringent NJDEP Soil Cleanup criteria. Concentrations of organics (including up to seven semivolatile organics and one pesticide), when averaged for individual berthing areas, were above the Residential Direct Contact criteria (the most stringent levels for these constituents) but below the next most stringent criteria. Mean concentrations of cadmium in individual berthing areas were above the Residential Direct Contact Cleanup standard of 1,000 µg/kg, but below the Non-Residential standard of 100,000 µg/kg. Average concentrations of two semivolatile organics and one pesticide were above the Residential and Non-residential Direct Contact criteria, but below the Impact to Groundwater criteria in samples representing individual berthing locations. Average thallium results at the BP Oil location exceeded the Residential and Non-Residential values, which were both 2,000 µg/kg. There is no Impact to Groundwater criteria value for thallium. Average thallium results for all other individual berthing areas, and for all berthing areas, were below the Residential and Non-Residential value. Concentrations, when averaged over all berthing areas, exceeded the most stringent NJDEP Soil Cleanup criteria of three semivolatile organics, two pesticides, and cadmium. Exceedences for these constituents, specifically bis(2-chloroethyl)ether, hexachlorobenzene, dieldrin, and toxaphene resulted from the laboratory's reporting limit, which was not as low as criteria values, since the compounds were not detected in any samples. N-nitroso-di-n-propylamine and cadmium mean calculations included concentrations which were below the Impact to Groundwater and the Non-Residential Direct Contact criteria values, respectively.

Elutriates

The Corps procedure for compliance averaging was utilized for elutriate sample results that exceeded the acute water quality criteria. The average of sample results was obtained for respective berthing areas and for all berthing areas. The averages were compared again to the acute water quality criteria. The averaging over individual berthing areas shows that total aluminum, total and dissolved copper, total silver, and total zinc were found at concentrations above the criteria levels. Dissolved aluminum, total cadmium, total lead, and dissolved zinc were found in six of the seven individual berthing areas at mean concentrations above the criteria.

The mean concentrations of the metals found above criteria levels in individual berthing areas, when averaged over all berthing areas, exceeded criteria values. Additionally, total metals including cobalt and vanadium, and dissolved metals including lead and silver, were found in at least one berthing area at mean concentrations exceeding the criteria.

1.0 Introduction

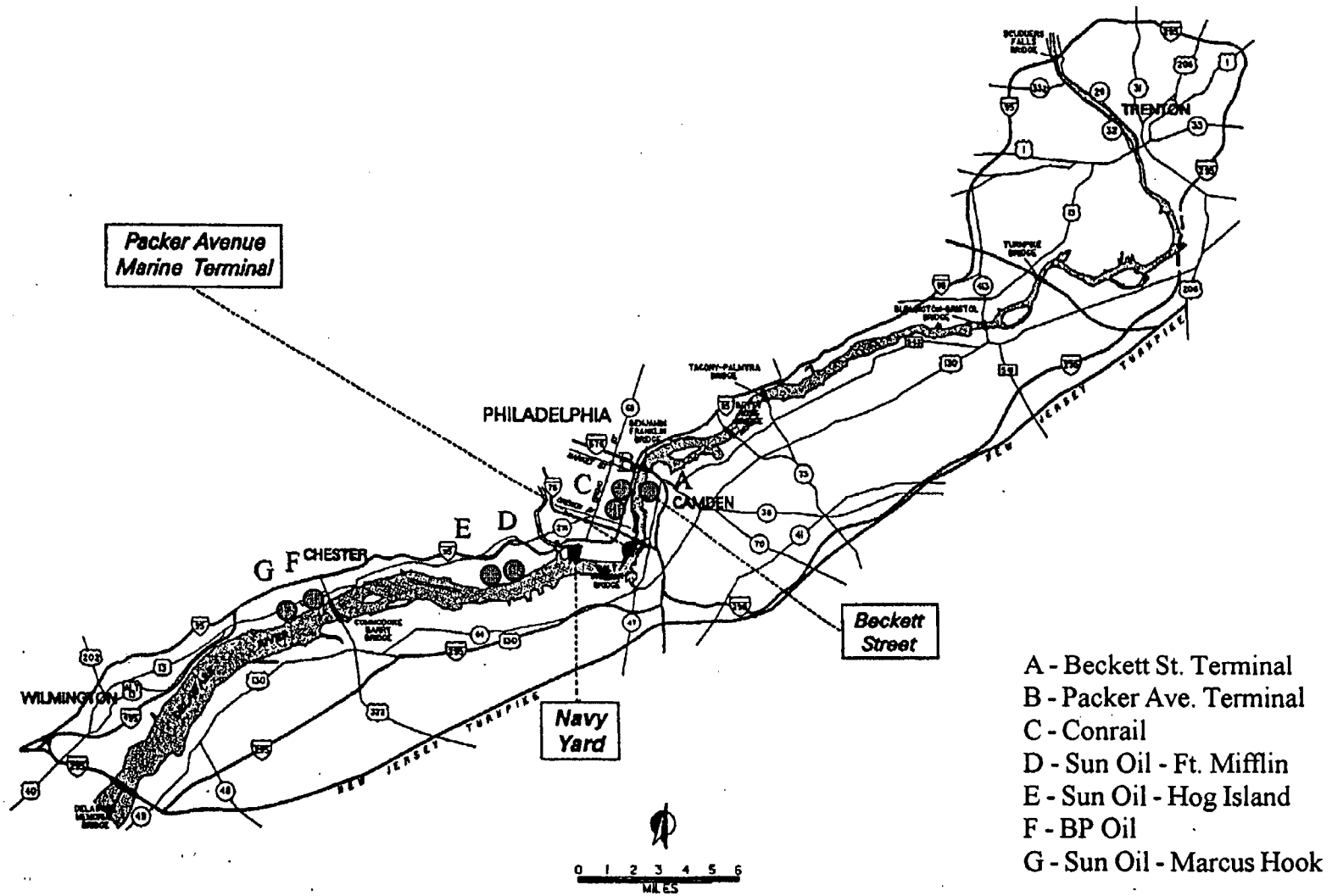
The U. S. Army Corps of Engineers (Corps), Philadelphia District, retained BLACK & VEATCH Waste Science, Inc. (BVWS) to collect 16 vibracore sediment samples at seven berthing locations along the Delaware River. BVWS conducted the sediment collection between April 30, 1995 and May 3, 1995. The general study area is shown on Figure 1 and sample locations are indicated on Figures 2A through 2G. Table 1 lists the boring locations along the Delaware River between Beckett Street Terminal at Camden, NJ and Sun Oil at Marcus Hook, PA.

This investigation is part of the Delaware River Comprehensive Navigation Study (Study). The Study consists of evaluating the existing conditions that affect waterborne commerce on the Delaware River from Trenton, NJ to the Atlantic Ocean; identifying the need for any modification to the existing channel dimensions and anchorage areas; and developing a regional plan for disposal of dredged material.

A Main Channel Deepening Interim Feasibility Report and Environmental Impact Statement was completed in February 1992. The recommendations of the report included deepening the existing federal navigation channel from 40 feet to 45 feet at mean low water from the Delaware Bay to the Philadelphia/Camden waterfront. The proposed project includes all appropriate bend widening as well as provision for a two space anchorage at Marcus Hook, PA. Approximately 50 million cubic yards of dredged material would be produced for initial construction during a five year period. Dredged material from the river would be placed in additional confined upland disposal areas.

The purpose of this investigation is to provide data to evaluate the potential environmental impact of dredging commercial berthing areas associated with the deepening of the ship channel along the Delaware River. Under Delivery Order 5 of Contract No. DACW61-94-D-0013, sediment cores were collected and processed for laboratory analysis. Under Delivery Order 6 of the same contract, the sediment samples were analyzed for the chemical and geotechnical parameters that were needed to assess the presence and possible release of contaminants during dredging and after disposal. Elutriate tests were also performed to simulate contaminant release during sediment suspension. Analytical results were compared to initial screening levels, as provided by the Corps.

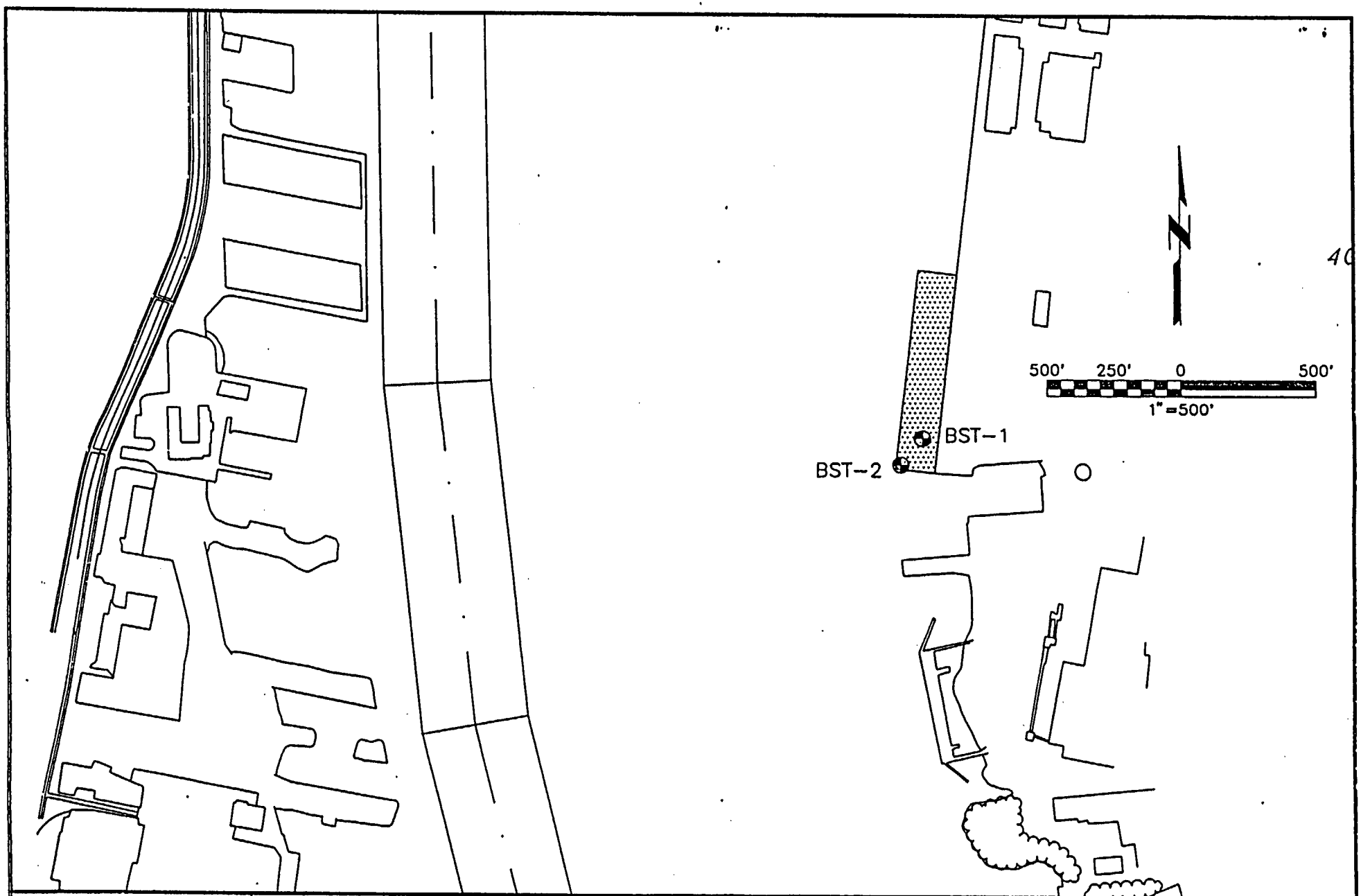
The Corps has two concerns regarding the chemical composition of the dredged material. The first is the potential short term water quality degradation arising from disturbance of bottom sediments. The sediments disturbed during dredging may carry contaminants such as organic compounds and heavy metals that can be released and become biologically available. The second concern is the long term impact associated with the dredged material at disposal sites. Upland disposal of contaminated sediments can result in groundwater contamination, exposure of ecological receptors to contaminants, and can adversely affect human health.



A - Beckett St. Terminal
B - Packer Ave. Terminal
C - Conrail
D - Sun Oil - Ft. Mifflin
E - Sun Oil - Hog Island
F - BP Oil
G - Sun Oil - Marcus Hook

General Sampling Area

Figure 1



BLACK & VEATCH
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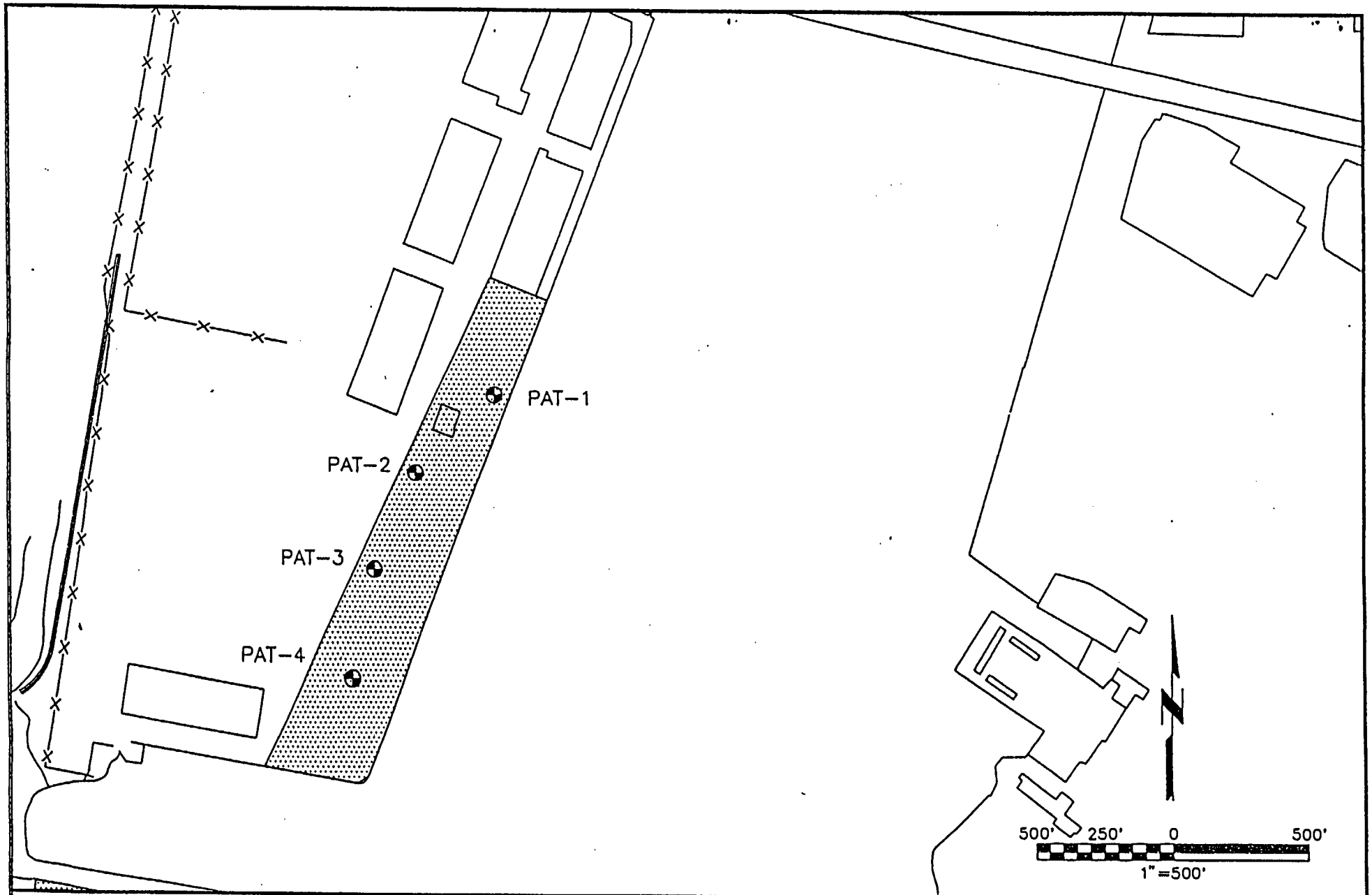
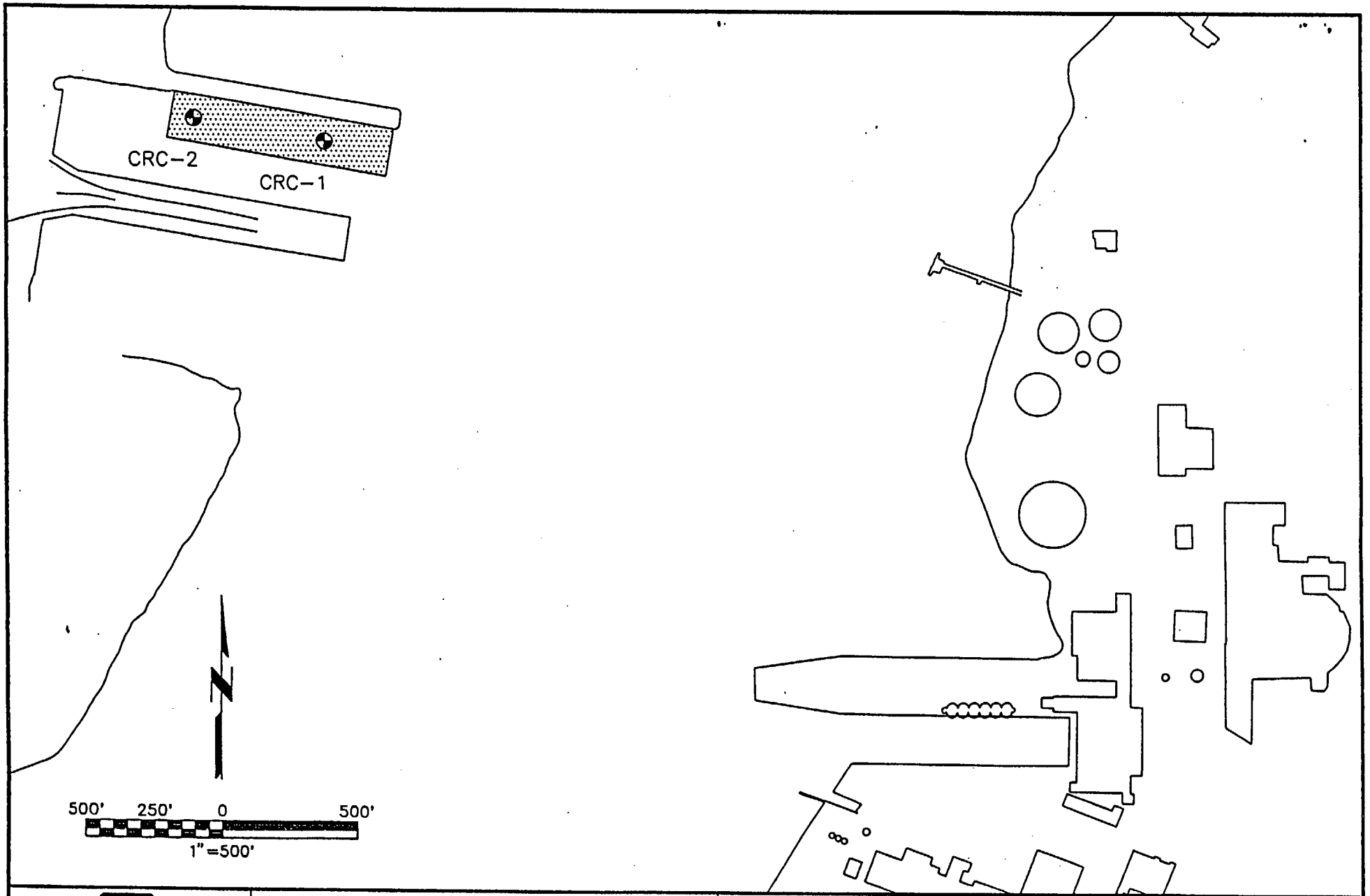
Vibracore Sampling Locations,

Beckett Street Terminal – Berth 4

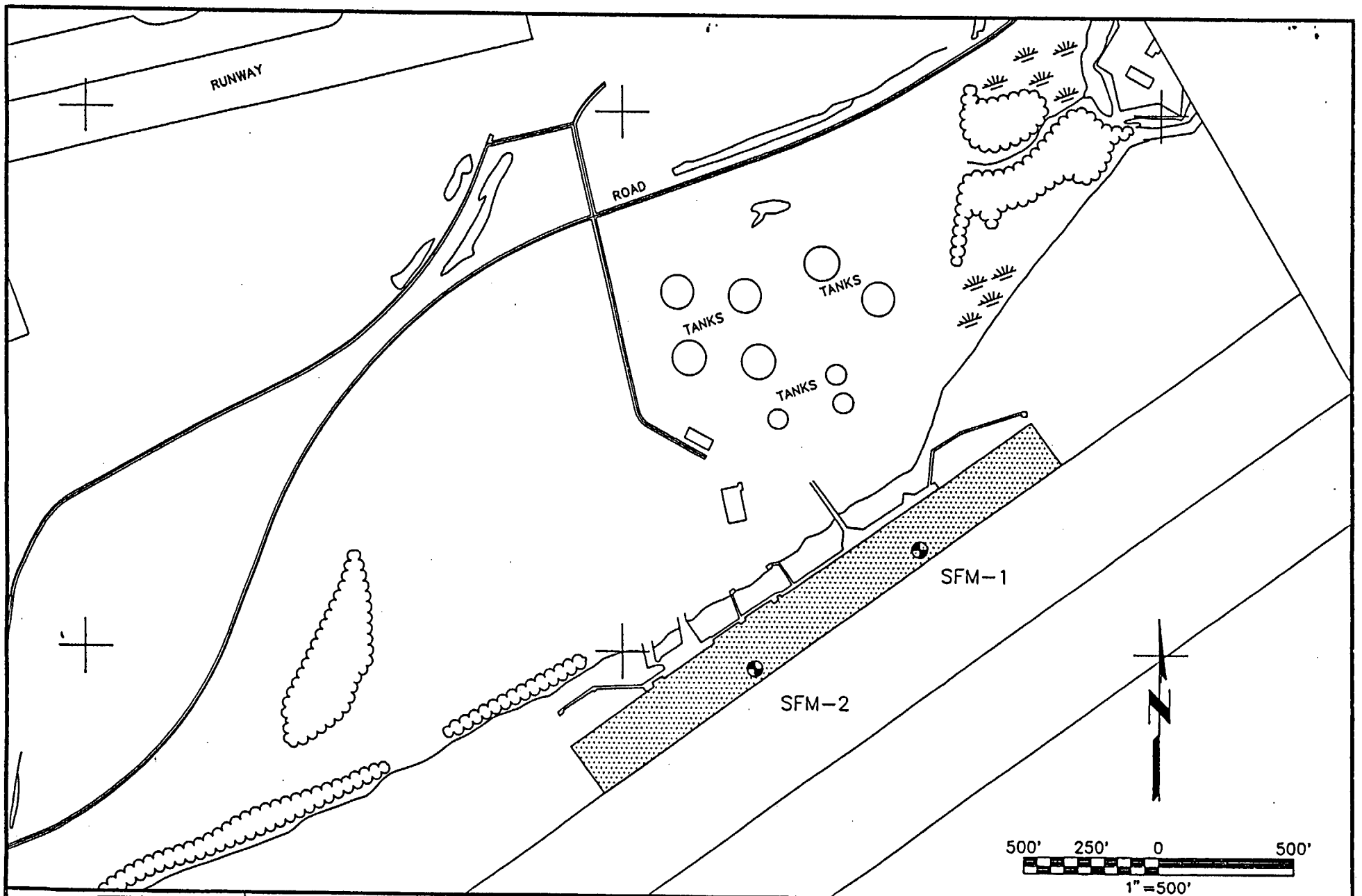
FIGURE
2A



BLACK & VEATCH Waste Science, Inc.	Vibracore Sampling Locations,	Packer Ave Terminal	FIGURE 2B



BLACK & VEATCH Waste Science, Inc.	Vibracore Sampling Locations	Conrail	FIGURE 2C



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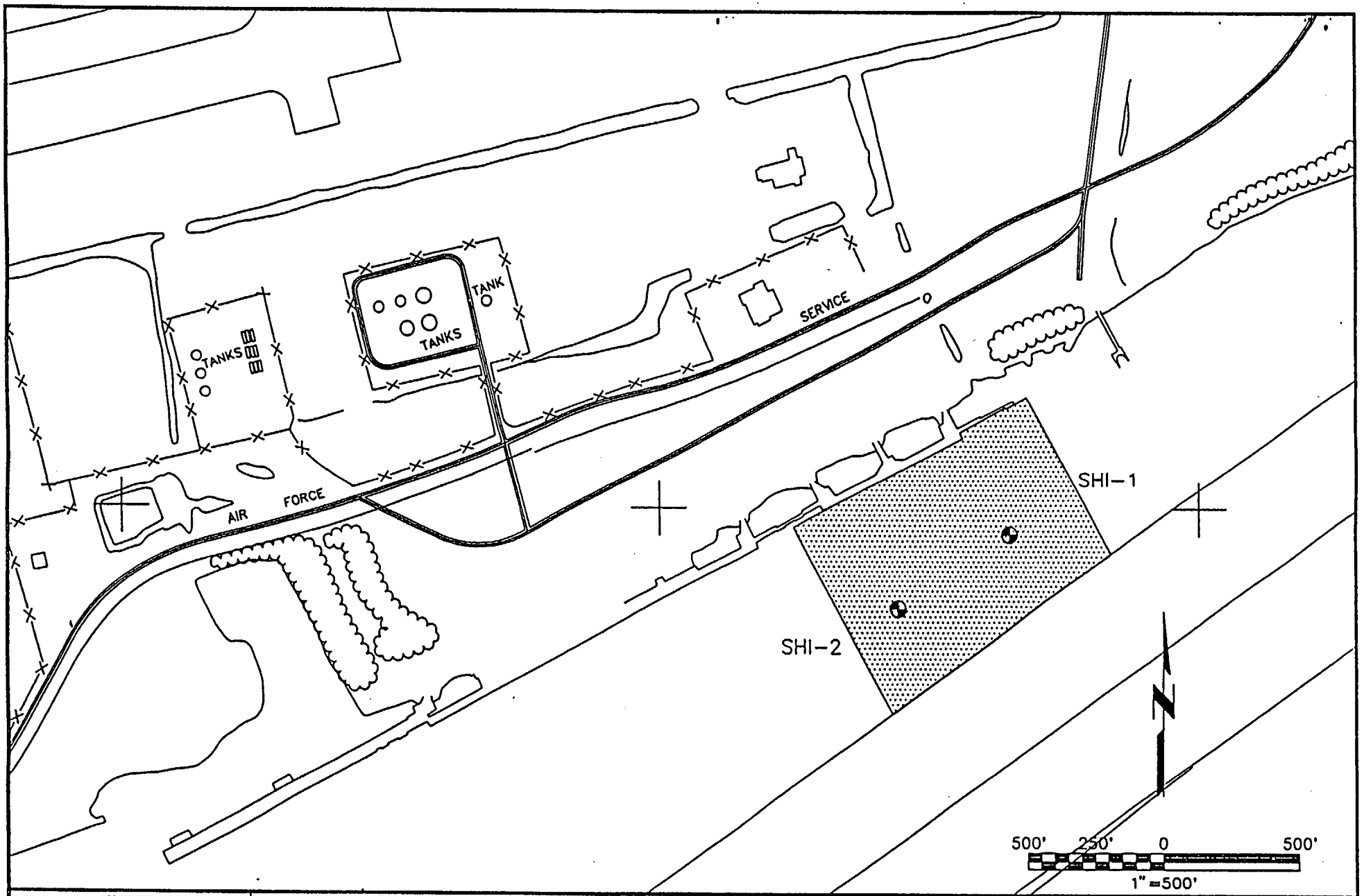
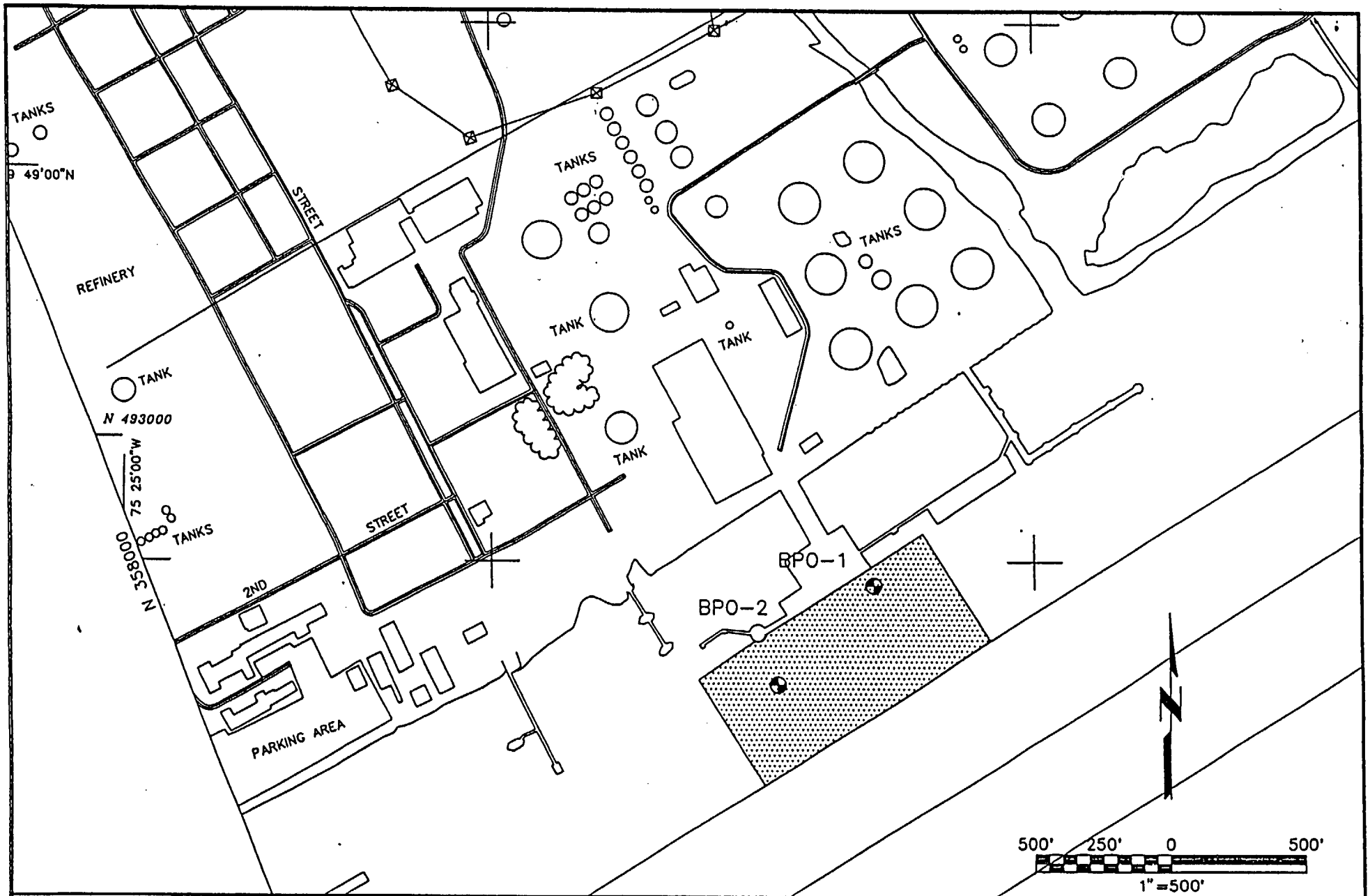
Vibracore Sampling Locations

Sun Oil – Ft Mifflin

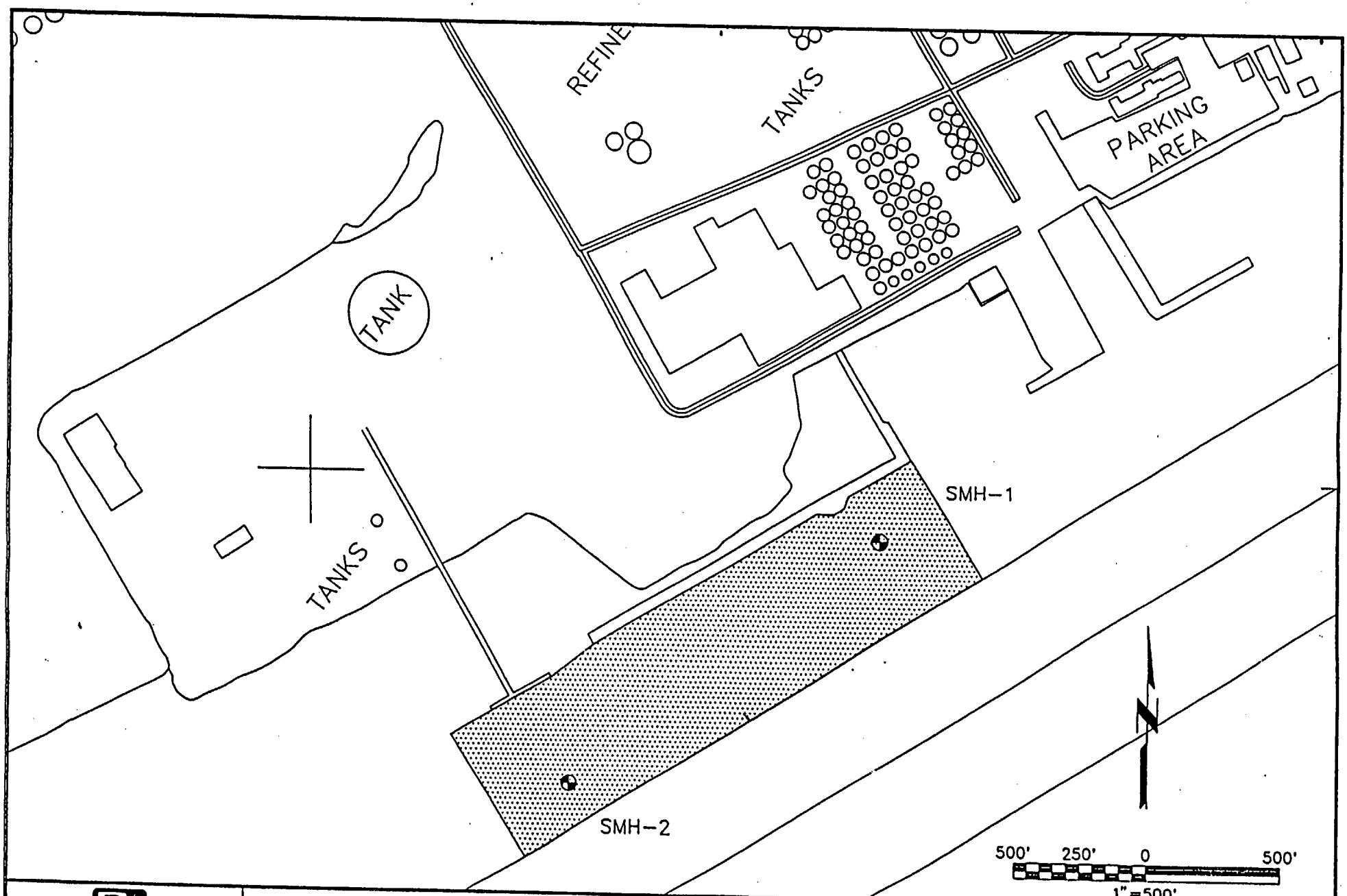
FIGURE
2D



BLACK & VEATCH Waste Science, Inc.	Vibracore Sampling Locations.	Sun Oil – Hog Island	FIGURE 2E



BLACK & VEATCH Waste Science, Inc.	Vibracore Sampling Locations,	BP Oil	FIGURE 2F



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Vibracore Sampling Locations

Sun Oil – Marcus Hook

FIGURE 2G

Table 1 Sampling Locations

Facility	Berth	Sample Number	Coordinates[1]	
			Northing	Easting
Beckett St. Terminal	Berth 4	BST-1-95	704307.23	735833.40
		BST-2-95	704196.31	735744.54
Packer Avenue Terminal	Berth 2	PAT-1-95	693100.79	735571.44
	Berth 3	PAT-2-95	692351.76	735192.11
	Berth 4	PAT-3-95	692023.11	735081.68
	Berth 5	PAT-4-95	691551.94	734969.71
Conrail	Pier 122 South	CRC-1-95	690592.85	734117.51
		CRC-2-95	690681.47	733679.98
Sun Oil - Fort Mifflin	Berth B	SFM-1-95	681164.17	712429.84
	Berth A	SFM-2-95	680743.02	711841.74
Sun Oil - Hog Island	Spillway 4	SHI-1-95	678661.76	708673.07
		SHI-2-95	678480.59	708218.52
BP Oil	Dock 1	BPO-1-95	660044.80	659001.20
		BPO-2-95	659705.09	658677.90
Sun Oil - Marcus Hook	Pier 3A	SMH-1-95	658031.15	655862.92
	Pier 3C	SMH-2-95	657048.40	654627.98

1. Horizontal coordinates are listed as NAD 83 Delaware State Plane Coordinate System.

The chemical results of the bulk sediment and elutriate tests suggest the need for additional evaluation of environmental impact posed by dredging. Depending on dredging method and the type of disposal after dredging, different evaluation procedures are required to ensure minimal release of contaminants from dredging locations and disposal sites.

Based on mobility and remobilization mechanism, the contaminants found in the sediments can be divided into two groups, the organic contaminants and the metal contaminants. The organic compounds, primarily semivolatiles, are typically bound to the naturally occurring organic substances in sediments. This is evidenced by the occurrences of these contaminants in the soft top layer of organic clay (e.g., Packer Avenue Terminal). The primary mechanism for these contaminants to be mobilized is by resuspension of the sediments. During resuspension, the contaminants are expected to largely remain in particulate forms, as indicated by the elutriate tests.

The metal contaminants, in contrast, may be released in dissolved form from the resuspended sediments. The processes affecting the metal release can be complex, but

redox condition is always a significant factor when the anoxic bottom sediments are exposed to oxygen in the overlying water. Oxidation of sulfide species can result in the release of dissolved heavy metals such as cadmium, copper, lead, and zinc into the water column.

Contaminant levels in sediments should be considered to select the appropriate dredging method. In berthing areas such as Packer Avenue Terminal and Conrail where contaminant levels are high and the top layer sediments are mostly soft and fine grained, hydraulic dredging may be desirable to minimize contaminant release during dredging. In other berthing areas such as Beckett Street Terminal, mechanical dredging may be appropriate because the top 5 feet is mostly coarse material and only a small quantity of contaminants is expected to be in the sediment.

Because of the contaminants found in the sediments, additional evaluations may have to be performed during the selection of disposal sites. These evaluations include potentials for surface runoff, groundwater leaching, and biological uptake of the contaminants. Proper runoff control needs to be in place because the contaminant carrying sediments are often fine grained. Contaminants may often be leached into groundwater after the once-anoxic sediments are exposed to oxygenated rain water infiltrating the vadose zone. Without proper cover on the contaminated sediments, the contaminants may enter the food chain through plant uptake and animals. These concerns should be properly addressed to ensure an environmentally sound disposal.

Chemical data were evaluated further by means of the Corps procedure for compliance averaging after the results of the chemical analyses were completed. Arithmetic means were calculated for individual berthing areas and for all berthing areas for constituents that exceeded initial screening levels. The means were compared to applicable criteria, in order to determine whether criteria could be exceeded during dredging or disposal of river sediments.

2.0 Methodology

2.1 Sample Collection and Analysis

BVWS conducted vibracoring from April 30, 1995 through May 3, 1995. Sixteen vibracores were collected from seven berthing locations between Beckett Street Terminal at Camden, NJ and the Sun Company refinery at Marcus Hook, PA along the Delaware River. The approximate coring locations were predetermined by the Corps and provided on drawings. Based on these locations, target coordinates (latitude/longitude) were determined by BVWS. The coring vessel was positioned in the field using the Differential Global Positioning System (DGPS) and code tracking from Transit System Satellites. The procedures for position accuracy calibration are documented in Appendix B. Location adjustments were made whenever the target coring locations were occupied by vessels.

Sediment cores of approximately 3.5 inches in diameter were obtained using a pneumatic impacting piston vibrator on top of a drive pipe made of standard 4-inch steel pipe. A 3.5 inch inner diameter clear plastic liner was fitted within the steel pipe to contain the core sample for ease of handling and storage. A cutterhead with a 3.5-inch inside diameter and 4.5 inch outside diameter was threaded onto the liner and drive pipe. A steel trap was inserted into the cutterhead to improve core recovery upon removal from the riverbed sediments. Coring was completed when either the cutting edge penetrated the target depth of ten feet or refusal was met. The drive pipe and cutterhead extension totaled ten feet in length. The top end of the drive pipe was attached to a flanged connection which was unable to pass through a base plate on the rig, so that the depth of penetration could not exceed ten feet. Refusal was defined as less than one foot of penetration after five minutes of vibration. If refusal was met, two additional coring attempts were made in the sample location area. When making the second and third attempts, jetting was conducted to the refusal depth and then vibration continued until the ten foot total target penetration was reached by combining all of the attempts or until refusal was met. Jetting used a pneumatically actuated jet pump to force water through the steel pipe and prohibits material from entering the drive pipe. Coring depths were recorded using either a penetrometer or a measuring tape mounted to the piston vibrator and recording depths as the drive pipe and vibrator head penetrated the riverbed. The target depth of ten feet below the river bottom was penetrated by the coring device and sample recovery was generally better than 80%.

Sediments of a very soft, slightly liquid consistency were collected. At some locations the uppermost sediments may have had a more fluid consistency and had been unable to pass through the steel trap in the cutting edge and enter the plastic liner. At locations with a soft upper layer of sediments the vibrator rig sank during vibration to a depth at which the sediments could support the rig. This depth was noted by the amount of mud on the supports of the rig after it was brought to the surface.

After removal of the plastic liner from the steel pipe, the amount of recovery was documented, and the liner was cut into five foot segments for ease of handling and storage. Each five foot segment was labeled to indicate sample location, the top and base sections, and orientation of core. Both ends of the five foot liner segments were capped with plastic caps and sealed with pressure sensitive tape. These segments were then refrigerated at 4^0 Celsius.

The liners were cut lengthwise to log and sample the cores using a 150-tooth steel plywood blade mounted on a circular saw. The cutting depth was adjusted so that only the liner was cut, allowing minimal sample disturbance. All of the samples collected from one sample location were opened and placed on plastic sheeting. Geological characteristics of the sample were recorded. Depths of different strata were measured from the top of the core.

After the geological characteristics and strata depths were recorded, sediments were prepared for chemical and geotechnical analysis from each core. Each sediment strata greater than six inches constituted a separate sample. A representative sample from each strata was collected for headspace analysis, sieve analysis, organics and inorganics analyses, and elutriate tests. The samples for headspace and volatile organic chemical (VOC) analyses were collected first using sediment from the interior portions of the core without homogenization. Sediment collected for geotechnical analysis was collected from either the exterior portions of the core or from areas potentially exposed to cross-contamination. When each strata was sampled for analysis other than VOC, the sediments were removed from the plastic liner, homogenized in stainless steel bowls, and packaged in amber glass jars. After packaging of the sediment samples in appropriate containers, the containers were stored on ice to cool the samples to 4^0 Celsius. The sediment samples were identified using the following Corps procedures: sample location - C or G (to indicate either chemical or geotechnical analysis) - depth of strata below top of core. The geotechnical samples were submitted for sieve analysis. The sediment samples were submitted to the laboratory for bulk analysis and elutriate preparation. Table 2 lists the samples collected, and approximate thickness of strata included in the sample.

Headspace analysis was used to field screen the sediments and provide an indicator of VOC concentrations. Headspace analysis was conducted by placing a small amount of sediment (approximately 1 tablespoon) into a mason jar, covering the jar with aluminum foil, and then sealing the lid. The jar was then shaken for approximately two minutes and exposed to sun light for approximately 15 minutes to encourage volatilization of chemicals in the sediments. Using an Organic Vapor Analyzer (OVA), the concentration of volatile organics was measured and recorded. Table 2 depicts the results of the headspace analyses. Background values were not subtracted from these readings. Background values ranged from 2 to 8 ppm during the study.

Table 2 Sample Summary

Sample Identification[1]	Estimated Strata Thickness (feet)	Headspace Analysis (ppm)	Collection Date	Collection Time
BPO-1-95-C-0.0	6.2	400	5/2/95	1324
BPO-1-95-C-6.2	1.8	26	5/2/95	1324
BPO-2-95-C-0.0	4.1	250	5/2/95	1646
BPO-2-95-C-4.1	4.2	250	5/2/95	1646
BST-1-95-C-0.0[2,4]	1.0	N.A.[3]	4/30/95	0851
BST-1-95-C-1.0[4]	2.75	52	4/30/95	0851
BST-1-95-C-3.75[4]	5	10	4/30/95	0851
BST-2-95-C-0.0	0.75	68	5/3/95	1317
BST-2-95-C-0.75	9.1	8	5/3/95	1317
CRC-1-95-C-0.0	3.5	>1,000	5/1/95	1332
CRC-1-95-C-3.5	>5.0	N.A.[3]	5/1/95	1332
CRC-2-95-C-0.0	4.5	710	5/1/95	1351
CRC-2-95-4.5	2.9	50	5/1/95	1351
CRC-2-95-C-7.4	2.6	N.A.[3]	5/1/95	1351
PAT-1-95-C-0.0	2.3	120	5/1/95	1620
PAT-1-95-C-2.3	>5.0	12	5/1/95	1620
PAT-2-95-C-0.0	>5.0	110	5/1/95	1218
PAT-2-95-C-6.8	0.8	38	5/1/95	1218
PAT-2-95-C-7.6[2]	0.5	12	5/1/95	1218
PAT-3-95-C-0.0	>5.0	92	5/1/95	0832
PAT-3-95-C-5.5[2]	0.75	11	5/1/95	0832
PAT-3-95-C-6.25	2.25	94	5/1/95	0832
PAT-4-95-C-0.0	>5.0	N.A.[3]	4/30/95	1154
PAT-4-95-C-5.0	4.0	N.A.[3]	4/30/95	1154
SFM-1-95-C-0.0	1.0	>1,000	5/3/95	1131
SFM-1-95-C-1.0	2.3	840	5/3/95	1131
SFM-1-95-C-3.3	3.1	720	5/3/95	1131
SFM-1-95-C-6.4	3.44	340	5/3/95	1131
SFM-2-95-C-0.0	5.0	920	5/3/95	1152
SFM-2-95-C-5.0	5.15	460	5/3/95	1152
SHI-1-95-C-0.0	4.6	>1,000	5/3/95	0917
SHI-1-95-C-4.6[2]	2.1	22	5/3/95	0917
SHI-1-95-C-6.7	2.46	460	5/3/95	0917
SHI-2-95-C-0.0	5.1	>1,000	5/3/95	1058
SHI-2-95-C-5.1	2.7	22	5/3/95	1058

Table 2 (continued)

Sample Identification[1]	Estimated Strata Thickness (feet)	Headspace Analysis (ppm)	Collection Date	Collection Time
SHI-2-95-C-7.8[2]	0.4	12	5/3/95	1058
SMH-1-95-C-0.0	1.4	10	5/2/95	1748
SMH-1-95-C-1.4	1.2	9	5/2/95	1748
SMH-2-95-C-0.0-R1	1.7	16	5/2/95	1008
SMH-2-95-C-0.0-R2	2.5	9	5/2/95	1036

[1] These sample identification names are for chemical samples only, geotechnical samples were identified similarly except the C was replaced with a G.

[2] Due to contract constraints, five samples had to be withheld from laboratory analysis. After consultation with the Corps, these samples were chosen based on insufficient volume and low headspace analysis values.

[3] Headspace analysis values were not available for these samples due to equipment failure caused by inclement weather.

[4] Due to an error in measurement during logging the sample, the depths of the three samples at BST-1-95 were mislabeled prior to shipping them to the lab. The top of strata depths at this location should all be two feet higher. The depths listed in this table are correct, and correlate with the nearby BST-2-95 strata.

On April 30, 1995, approximately 200 gallons of river water were collected for use in the elutriate preparation and analysis. This river water was collected off Pier 9 using a low-flow peristaltic pump. The collection tubing was suspended approximately 10 feet from the pier edge and greater than 50 feet (or 15 meters) from any field identifiable source of pollution. Collection began at 1351 hours and ended at 0050 hours on May 1, 1995. River water was collected in 5 gallon plastic jugs, placed in a cooler and surrounded with ice to cool the samples to 4^0 Celsius.

Also on April 30, 1995, one river water sample was collected at 1557 hours for chemical analysis. This sample was identified as RIVH2O and collected directly from the pump tubing during the water collection for elutriate preparation. After collection, the sample containers were surrounded with ice and packaged in a cooler for shipment to the laboratory.

Because of contract constraints, only 35 samples could be submitted for laboratory analysis; however, 40 samples were collected. After consultation with the Corps, five samples were deleted from laboratory analysis. Deletion was based on these samples being representative of thin strata and having low headspace readings when compared with other samples collected from the same location. The five samples that were not analyzed are identified in Table 2.

Bulk sediment and elutriate samples were analyzed by methods found in United States Environmental Protection Agency (USEPA) SW-846 Test Methods. Elutriates were prepared following the modified elutriate test, as outlined in the Delivery Order. The elutriates were prepared within seven days of sample collection and labeled to correspond with the sediments. One sample of river water was analyzed for total chemical constituents as per USEPA SW-846 Test Methods.

Sample chain-of-custody forms are located in Appendix C. Laboratory data packages were submitted under separate cover to the Philadelphia District, USACE. All laboratory analytical services were provided by Nytest Environmental, Inc., a validated USACE Missouri River Division (MRD) laboratory. Appendix D contains the results of the laboratory analyses as discussed in Section 2.2.

To establish the validity of data obtained from the sampling effort, QC samples were submitted to the laboratory for chemical analysis. The QC samples included one duplicate, one equipment rinse blank, and daily trip blanks. The rinse blank was collected on May 4, 1995 at 1020 hours, and designated RB0504. It was collected by pouring laboratory provided deionized water over a decontaminated bowl and spoon used to homogenize the sediments prior to packaging in amber glass bottles.

All of the stainless steel bowls, spoons, and putty knives were decontaminated following Corps procedure. The Corps procedure included the following ten step decontamination process:

- wash with Alconox and tap water
- tap water rinse
- deionized water rinse
- 10% Nitric Acid rinse
- deionized water rinse
- hexane rinse
- deionized water rinse
- acetone rinse
- deionized water rinse
- air dry

Other decontamination procedures used during the sampling event included an Alconox and tap water wash on the plastic liners and steel traps, and pumping greater than ten times the volume of water held inside the tubing used to collect the river water prior to water collection.

2.2 Data Analysis

Bulk sediment and elutriate sample analytical results were compared to initial screening levels and exceedences were highlighted (see tables in Appendix D). The chemical

constituents detected above the screening levels were examined further by utilizing compliance averaging. In addition, analytical results for chemical constituents that were reported as undetected by the laboratory at concentrations that exceeded the applicable screening levels were examined using compliance averaging. The reporting limits were used in this compliance averaging.

Initial screening values for the bulk sediment samples were a combination of human health risk and ecological risk standards. The human health risk standards used were the NJDEP Soil Cleanup criteria, which are separated into three categories: Residential Direct Contact, Non-Residential Direct Contact, and Impact to Groundwater. The Residential and Non-Residential criteria were established to address human health risks based on direct contact with soil, while the Impact to Groundwater criteria were established to address the potential impact that a contaminant may have on the groundwater beneath a site. Ecological standards included Effects Range-Low (ER-L) and Effects Range-Median (ER-M) values, reported by Long et. al., which are ecologically-based screening values for determining potential toxicological risks to benthic macroinvertebrate communities in sediments. The ER-L values are concentrations that during laboratory tests caused adverse effects in 10% of the study population; while the ER-M values caused adverse effects in 50% of the study population. Other ecological risk standards included USEPA Sediment Quality Criteria for Fresh Waters and for Salt Waters.

Elutriate sample data were compared to initial screening levels termed Acute Water Quality Criteria, as provided by the Corps. The criteria are ecologically-based screening values used to determine potential risk to aquatic organisms from contaminants present in the water column.

Compliance averaging involved obtaining arithmetic mean concentrations of chemical constituents for each berthing area and for a combination of all berthing areas. Sample results were used in the calculations if constituents were detected. The laboratory reporting limits were utilized if constituents were reported as undetected by the laboratory. The use of the laboratory reporting limits to calculate means for undetected constituents resulted in a conservative mean concentration, since the constituents were either not present or were present at lower concentrations than the laboratory could detect.

The compliance average results were compared to criteria values obtained from NJDEP Soil Cleanup criteria. Prior to comparing mean data to the NJDEP Soil Cleanup criteria, the lowest value from the three categories was identified. This lowest value, the most stringent, was then used for comparison to mean data. If any exceedences were noted, then further comparisons to the remaining two NJDEP Soil Cleanup criteria values, which were less stringent, were made.

3.0 Results

Sufficient sediment recovery of a minimum of eight feet was obtained at fourteen of the sixteen boring locations. More than one attempt was made at seven of the boring locations in order to obtain sufficient sediment recovery. Two of the boring locations met refusal prior to collection of sufficient recovery.

At two of the boring locations, SMH-1-95 and SMH-2-95, both located at Sun Oil - Marcus Hook, refusal was met prior to obtaining eight foot recovery. SMH-2-95 (near Pier 3C) was attempted first and encountered refusal at 28 inches below the river bottom. A retry at this location did not make any additional penetration. At this time, the field crew was concerned about the two pipelines that were located within the sampling area and moved to locations BPO-1-95 and BPO-2-95 to conduct coring. After consultation with the Corps and verification of sampling location coordinates, the crew returned to the Sun Oil - Marcus Hook Pier 3A for the second boring location, SMH-1-95. Three boring attempts were made at SMH-1-95 and all met refusal. The first and third attempts had zero recovery. On the second attempt 30 inches of sediments were recovered; even though the penetrometer indicated a 10 foot penetration, and the steel drive pipe enclosing the liner was bent approximately seven to eight feet above the cutting edge. The cutterhead edge was also bent during vibration. SMH-1-95 and SMH-2-95 appear to have met refusal at the same layer. Because of this the crew did not return to SMH-2-95 to complete the second retry. The low recovery cores from each location were kept and processed for laboratory analyses.

The study area at Beckett Street Terminal was occupied by vessels, and samples could not be collected at the target locations. After consulting with the Corps, the locations were adjusted toward the south end of the berth.

3.1 Strata

In most of the study areas, alternating layers of very soft to soft organic silty clay and gray sand were encountered. At the Beckett Street Terminal study area, a thin sand layer was present over a layer of clay and silty fine sand. At the Sun Oil-Marcus Hook study area, very dense layers of sand and gravel (some of which is fill) were encountered and little sample recovery could be achieved.

General descriptions of the sediments retrieved at the seven study areas are listed below, going from north to south. Detailed boring logs were completed and are provided in Appendix A.

At the Beckett Street Terminal study area, a thin strata of sand (thickness 0.75 to 3.7 feet) was found above a strata of red clay and white fine silty sand, possibly the Raritan Formation.

At the Packer Avenue Terminal study area, three strata were encountered; two layers of silty clay separated by a sand. The top strata (thickness 1.7 to 6.8 feet) was very soft organic silty clay. The second strata was a gray sand or gravelly sand. At PAT-3-95 this gravelly sand extended to the base of the sample and was more than 6.4 feet thick. The base strata at locations PAT-1-95 through PAT-3-95 was a very soft to soft organic silty clay which exhibited laminations of sand.

At the Conrail location, layers of organic silty clay and sand were found. In CRC-1-95, only organic silty clay was encountered. At CRC-2-95, a 4.5 foot thick layer of organic silty clay was present above alternating layers of a similar organic clay and sand.

At the Sun Oil - Hog Island study area, strata similar to those seen at the Packer Avenue Terminal study area were encountered. An upper layer of very soft organic silty clay (up to 5.1 feet thick) overlaid a sand layer (up to 2.7 feet thick), which in turn overlaid another organic silty clay strata which contained numerous fine sand laminations.

At the Sun Oil - Fort Mifflin study area, alternating strata of organic silty clay and sand with some silt were found. These strata were similar to the lower strata of the Sun Oil - Hog Island and Packer Avenue Terminal areas in that there were numerous fine laminations of sand, silt, clay, and organic material. These laminations are attributed to seasonal depositional variations along the Delaware River channel.

At the BP Oil study area, an upper strata was encountered of very soft organic silty clay which comprised all of sample BPO-2-95 and went to a depth of 6.2 feet in sample BPO-1-95. The bottom 1.2 feet of BPO-1-95 contained a gray sand similar to that found below the organic silty clay in other study area described above.

At the Sun Oil - Marcus Hook study area, no material was recovered past a depth of 2.6 feet below the river bottom. Some fine sandy silt was found as the top strata of SMH-1-95, but the rest of the sediments were very dense sand and gravel. Some concrete and other possible fill material were retrieved at the SMH-2-95 location.

3.2 Laboratory Analysis

The rinse blank was tested for sediment parameters, and only very low levels of volatile organics were detected. The organics included toluene at 1J µg/L, acetone at 29 µg/L, and methylene chloride at 2JB µg/L.

Only two volatile organic compounds were detected in trip blanks. Trip blanks TB0504 and TB0504A had 36 and 15 µg/L acetone, respectively. All five trip blanks had levels up to 5J µg/L methylene chloride. These two compounds are common laboratory contaminants. The blank detections therefore should not significantly affect the overall quality of the data.

A field duplicate, PAT-2-95-C-D, was submitted for bulk sediment and elutriate procedures. The results were compared to PAT-2-95-C-0 and were found to be generally consistent. Chemical testing data for the rinse blank and the trip blanks are tabulated in Appendix D.

3.2.1 Bulk Sediment Analytical Results

Chemical properties of the sediment samples were evaluated upon receipt of the laboratory results. Chemical testing results and grain size curves for the bulk sediment samples can be found in Appendices D and E, respectively. Table 1 in Appendix F contains the bulk sediment initial screening levels. Chemical concentrations that exceeded screening levels are highlighted in the Appendix D tables and include various semivolatile organic compounds and metals. Cyanide was not detected in any of the sediment samples.

Sediment results for total organic carbon analysis indicated that levels ranged from approximately 600 to 90,000 parts per million, the highest levels found at sample location PAT-2-95 at the top strata. For two samples, the total organic carbon was analyzed using aliquots designated for the geotechnical testing (CRC-1-95-C-0 and CRC-1-95-C-3). However, the results of the analysis were not significantly affected.

3.2.2 Elutriate Analytical Results

Analytical results for the elutriate samples and the river water sample are tabulated in Appendix D. Table 3 in Appendix F contains the Acute Water Quality Criteria for use as initial screening levels as provided by the Corps. Chemical concentrations that exceed these screening values are highlighted in the tables, and include up to ten metals in individual samples.

The elutriate tests commenced within seven days of sample collection for all of the samples. The laboratory noted that the samples did not settle or filter well during preparation due to the silty nature of the sediments. Upon addition of preservatives, some of the samples separated into two phases. The laboratory homogenized the samples thoroughly prior to performing chemical analyses in order to obtain a representative sample.

Total suspended solids results for the elutriates ranged from approximately 300 to 14,000 parts per million. Chloride was detected at levels up to 22 parts per million. Total residual chloride was either not detected or found at extremely low levels. Cyanide was not detected in any samples.

Results for total dissolved solids were under 100 parts per million. Chloride, total residual chloride, and cyanide were undetected or present at very low levels.

Hexavalent chromium was not detected in any of the samples taken for the entire project. However, several elutriate samples were analyzed several hours outside of the 24 hour

holding time for hexavalent chromium. The laboratory indicated that the samples involved were received five days into a seven day holding time for elutriate preparation and due to the difficulty in filtering the samples, the analysis was delayed. Hexavalent chromium was not expected to be present in these samples because of the anoxic nature of the sediments.

3.2.3 Compliance Averages Comparison

Further evaluation of the bulk sediment analytical results was conducted using compliance averaging techniques. Results of the compliance averaging data analysis indicated that mean values for eleven organic compounds and two metals exceeded the most stringent criteria in individual berthing locations; while the mean values when averaged for all berthing areas for five organic compounds and one metal exceeded or were the same as the most stringent values. Section 4.0 contains a discussion of the chemical constituents of which the concentrations exceeded initial screening levels and compliance averages exceeded additional criteria values.

Compliance averaging results indicated that several total and dissolved metals results were above criteria values. Total aluminum, total and dissolved copper, total silver, and total zinc were found at mean levels above the criteria. The mean concentration for all berthing areas for the metals listed above detected in most or all of the individual locations was also above the respective criteria levels. Additionally, total metals including cobalt and vanadium, and dissolved metals including lead and silver, were found in at least one berthing area at mean concentrations exceeding the criteria. A discussion of these constituents is found in Section 4.0.

3.3 Exceptions

For some constituents, the laboratory was not able to achieve detection levels in some or all of the bulk sediment and elutriate samples as low as the applicable screening levels. In some cases, the moisture content in the sediments elevated the reporting limit. Additionally, the need to analyze certain samples at 1:2 and 1:3 dilutions in order to maintain peaks on scale and to obtain the appropriate peak resolutions prevented obtaining analytical results below screening levels. When possible, the sample extracts were analyzed undiluted to report the lowest concentrations possible.

Bulk sediment constituents that had reporting limits greater than the screening values included bis(2-chloroethyl)ether, hexachlorobutadiene, acenaphthylene, 2,6-dinitrotoluene, acenaphthene, fluorene, hexachlorobenzene, anthracene, fluoranthene, pyrene, 3,3'-dichlorobenzidine, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene, aldrin, dieldrin, endrin, toxaphene, PCBs, and mercury. The elutriate constituents involved included hexachlorocyclopentadiene, 2,4,6-trichlorophenol, phenanthrene, benzo(a)anthracene, 1,2-diphenyl-n-hydrazine, toxaphene, chloropyrifos, parathion, and formeldehyde. Arithmetic means were calculated for these analytes using any detectable

concentrations along with the laboratory detection limits, in order to further evaluate the results.

A number of sediment and elutriate samples were re-extracted and re-analyzed for semivolatile organic compounds, due to low surrogate recoveries on the initial runs. Results from the initial runs were tabulated, and the second runs used for confirmational purposes only.

4.0 Discussion

This section evaluates the analytical results for bulk sediment and elutriate testing by comparing individual sample results with initial screening levels and by utilizing the compliance averaging procedure for flagged chemical constituents. Constituents that were detected above screening levels in bulk sediment or elutriate samples, or those that had laboratory detection levels above screening levels, were further evaluated using compliance averaging, which involved obtaining arithmetic mean results for each berthing area and for a combination of the berthing areas. Mean data were compared to soil/sediment or water criteria as appropriate, and conclusions were drawn based on the comparisons.

4.1 Comparison with Initial Screening Levels

4.1.1 Bulk Sediment Samples

Bulk sediment sample data that were reported above the initial screening levels included 25 organic compounds and 10 metals, some of which were reported as undetected at the laboratory detection limits. Table 3 lists the sample locations along with the number of organic contaminants exceeding bulk sediment screening levels. Metals detected above the bulk sediment screening levels and the associated sample locations are depicted in Table 4. These tables do not include contaminants that were reported by the laboratory as undetected at concentrations exceeding the screening levels.

Twelve organic compounds were present in the sediment samples at concentrations which exceeded the bulk sediment screening levels. Semivolatile organic compounds and the maximum concentrations detected were as follows: n-nitroso-di-n-propylamine (1500 µg/kg, PAT-4-95-C-5.0); acenaphthylene (67J µg/kg, BST-2-95-C-0.0); acenaphthene (1700µg/kg, PAT-4-95-C-5.0); 2,4-dinitrotoluene (1900µg/kg, PAT-4-95-C-5.0); fluorene (150J µg/kg, BST-2-95-C-0.0); anthracene (220J µg/kg, BST-2-95-C-0.0); fluoranthene (1600µg/kg, BST-2-95-C-0.0); pyrene (2300µg/kg, PAT-4-95-C-5.0); benzo(a)anthracene (650µg/kg, BST-2-95-C-0.0); chrysene (620µg/kg, BST-2-95-C-0.0); and benzo(a)pyrene (620µg/kg, BST-2-95-C-0.0). Additionally, aroclor-1254 was detected at levels exceeding the initial screening level of 29 µg/kg in ten samples, at various berthing locations.

Metals in sediments that were present above the bulk sediment screening levels included arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, thallium, and zinc. Some or all of these metals were found in 16 of the 35 samples, representing 15 of the 16 sampling locations. The Beckett Street Terminal samples contained no metals that exceeded initial screening levels and only one Sun Oil-Marcus Hook sample contained concentrations above the initial screening levels.

Table 3 Bulk Sediment Organic Contaminants above Initial Screening Levels

Station	Depth Interval (feet)	Number of Exceedences	
		Semivolatiles	PCBs
BPO-1-95	0.0 - 6.2	0	1
BPO-2-95	0.0 - 4.1	0	1
BPO-2-95	4.1 - 8.3	0	1
BST-2-95	0.0 - 0.75	9	0
CRC-1-95	0.0 - 3.5	6	1
CRC-1-95	3.5 - 8.5	6	1
CRC-2-95	0.0 - 4.5	5	0
PAT-1-95	0.0 - 2.3	6	1
PAT-2-95	0.0 - 5.0	5	0
PAT-3-95	0.0 - 5.0	5	0
PAT-4-95	0.0 - 5.0	4	0
PAT-4-95	5.0 - 9.0	4	0
SFM-1-95	0.0 - 1.0	7	1
SFM-1-95	1.0 - 3.3	5	1
SHI-1-95	0.0 - 4.6	0	1
SHI-1-95	6.7 - 9.16	1	0
SHI-2-95	0.0 - 5.1	3	1

Table 4 Bulk Sediment Inorganic Contaminants above Initial Screening Levels

Station	Depth Interval (feet)	Metals
BPO-1-95	0.0 - 6.2	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
BPO-2-95	0.0 - 4.1	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
BPO-2-95	4.1 - 8.3	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
CRC-1-95	0.0 - 3.5	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
CRC-1-95	3.5 - 8.5	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
CRC-2-95	0.0 - 4.5	As, Cd, Cr, Cu, Hg, Ni, Ag
PAT-1-95	0.0 - 2.3	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn
PAT-2-95	0.0 - 5.0	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
PAT-3-95	0.0 - 5.0	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
PAT-4-95	0.0 - 5.0	Ag
SFM-1-95	0.0 - 1.0	As, Cd, Cr, Cu, Pb, Ag, Zn
SFM-1-95	1.0 - 3.3	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
SFM-1-95	3.3 - 6.4	As, Cr, Ni, Ag
SFM-1-95	6.4 - 9.84	Ag
SHI-1-95	0.0 - 4.6	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Th, Zn
SHI-2-95	0.0 - 5.1	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn
SMH-1-95	0.0 - 1.4	Cr, Pb, Ni, Zn

4.1.2 Elutriate Samples

Elutriate testing indicated that metals were present at concentrations above the acute water quality criteria. The metals detected above these screening values and the associated sample locations are depicted in Table 5. The table does not include contaminants that were undetected at concentrations which exceeded the screening levels.

Results of the elutriate analyses indicated that all of the elutriate samples had concentrations of metals which exceeded the screening values. Total metals detected at levels above the initial screening levels included aluminum, cadmium, chromium, cobalt, copper, lead, mercury, silver, vanadium, and zinc. Dissolved metals included aluminum, cadmium, copper, lead, mercury, silver, and zinc. No organics or other inorganics were detected in the elutriate samples at concentrations above the screening levels.

Elutriate sample data that were reported as undetected at levels that exceeded initial screening levels included nine organic compounds, both total and dissolved phases.

4.1.3 Comparison with Initial Screening Levels by Berthing Areas

General summaries of pertinent testing results of individual samples compared with initial screening levels for each of the seven berthing locations are listed below, going from north to south.

At the BP Oil location, aroclor-1254 and metals were found at both BPO-1-95 and BPO-2-95 at concentrations above the bulk sediment screening levels. Some or all of the elutriates from this study area contained levels of total aluminum, cadmium, copper, lead, silver, and zinc at levels that exceeded elutriate screening values. All of the elutriates also contained dissolved copper and dissolved zinc above screening levels. Dissolved aluminum and dissolved lead were present at elevated levels in at least one of the samples.

At the Beckett Street Terminal study area, one of the two sediment samples from BST-2-95 contained detectable concentrations of semivolatile organics above bulk sediment screening levels; while no samples from the study area contained detectable concentrations of metals above screening levels. The four elutriate samples from the study area contained concentrations above elutriate screening levels for total aluminum and copper, while three contained concentrations of zinc and one contained lead and silver. Dissolved copper and zinc concentrations above screening levels were found in three out of four of these samples.

At the Conrail study area, organics and metals were present at concentrations above bulk sediment screening levels in samples taken at CRC-1-95 and in the top strata (thickness 4.5 feet) only at CRC-2-95. The greatest number of metals exceeding the elutriate screening levels at this study area in the elutriate samples were found in the top strata at CRC-2-95. Nine total and seven dissolved metals were detected in this sample, including

Table 5 Elutriate Contaminants above Acute Water Quality Criteria

Station	Depth Interval (feet)	Total Metals	Dissolved Metals
BPO-1-95	0.0 - 6.2	Ag, Cd, Cu, Pb, Zn	Al, Cu, Zn
BPO-1-95	6.2 - 8.0	Al, Cu, Pb, Zn	Cu, Zn
BPO-2-95	0.0 - 4.1	Ag, Al, Cu, Pb, Zn	Cu, Zn
BPO-2-95	4.1 - 8.3	Al, Cu, Pb, Ag, Zn	Cu, Pb, Zn
BST-1-95	1.0 - 3.75	Al, Cu, Zn	Cu, Zn
BST-1-95	3.75 - 8.75	Al, Cu	
BST-2-95	0.0 - 0.75	Ag, Al, Cu, Pb, Zn	Cu, Zn
BST-2-95	0.75 - 9.85	Al, Cu, Zn	Cu, Zn
CRC-1-95	0.0 - 3.5	Ag, Cd, Cu, Pb	Cu, Zn
CRC-1-95	3.5 - 8.5	Ag, Cd, Al, Co, Cu, Pb, V, Zn	Al, Cu, Pb, Zn
CRC-2-95	0.0 - 4.5	Ag, Al, Cd, Co, Cu, Pb, Hg, V, Zn	Ag, Al, Cd, Cu, Pb, Hg, Zn
CRC-2-95	4.5 - 7.4	Al, Cd, Cu, Pb, Ag, Zn	Cu, Zn
CRC-2-95	7.4 - 10.0	Ag, Al, Cd, Co, Cu, Pb, Zn	Al, Cu
PAT-1-95	0.0 - 2.3	Al, Cd, Cu, Pb, Ag, Zn	Al, Cu, Zn
PAT-1-95	2.3 - 7.3	Al, Cu, Pb, Ag, Zn	Al, Cu
PAT-2-95	0.0 - 5.0	Al, Cd, Cu, Pb, Ag, Zn	Cu, Zn
PAT-2-95	6.8 - 7.6	Al, Cu, Pb, Ag, Zn	Al, Cu
PAT-3-95	0.0 - 5.0	Al, Cd, Cu, Pb, Ag, Zn	Al, Cu, Zn
PAT-3-95	6.25 - 8.50	Al, Cd, Co, Cu, Pb, Ag, Zn	Al, Cu, Zn
PAT-4-95	0.0 - 5.0	Al, Cd, Co, Cu, Pb, Ag, Zn	Al, Cu, Zn
PAT-4-95	5.0 - 9.0	Al, Cd, Co, Cu, Pb, Ag, Zn	Al, Cu, Zn
SFM-1-95	0.0 - 1.0	Al, Cd, Cr, Cu, Pb, Hg, Ag, V, Zn	Cu, Zn
SFM-1-95	1.0 - 3.3	Al, Cd, Cr, Co, Cu, Pb, Hg, Ag, V, Zn	Cu, Zn
SFM-1-95	3.3 - 6.4	Ag, Al, Cd, Co, Cu, Pb, V, Zn	Al, Cu, Pb, Zn
SFM-1-95	6.4 - 9.84	Ag, Al, Cd, Co, Cu, Pb, Zn	Cu, Zn
SFM-2-95	0.0 - 5.0	Al, Cd, Co, Cu, Pb, Zn	Cu
SFM-2-95	5.0 - 10.15	Ag, Al, Cd, Co, Cu, Pb, Zn	Cu
SHI-1-95	0.0 - 4.6	Al, Cd, Cu, Pb, Ag, Zn	Cu, Zn
SHI-1-95	6.7 - 9.16	Ag, Al, Cd, Co, Cu, Pb, Zn	Al, Cu, Zn
SHI-2-95	0.0 - 5.1	Al, Cd, Co, Cu, Pb, Ag, V, Zn	Al, Cu, Zn
SHI-2-95	5.1 - 7.8	Al, Cu, Zn	Cu
SMH-1-95	0.0 - 1.4	Al, Cu	Cu
SMH-1-95	1.4 - 2.6	Ag, Al, Cu, Zn	Cu
SMH-2-95	0.0 - 1.7	Al, Cd, Cu, Pb, Ag, Zn	Al, Cu, Pb, Zn
SMH-2-95	0.0 - 2.5	Al, Cu, Zn	Cu

total and dissolved mercury. Metals detected in elutriate samples from other samples at this study area included total and dissolved aluminum, total cadmium, total cobalt, total and dissolved copper, total and dissolved lead, total silver, total vanadium, and total and dissolved zinc.

At the Packer Avenue Terminal study area, the top strata (thickness 1.7 to 6.8 feet) at the four sampling locations contained both organics and metals that exceeded the bulk sediment screening levels. The top and middle strata at location PAT-4-95 contained semivolatile organic compounds at concentrations reaching several parts per million, the highest concentrations detected during this study. The middle strata at the other locations and the bottom strata at all locations did not contain contaminant concentrations above screening levels. Levels of total metals including aluminum, copper, lead, silver, and zinc that exceeded screening levels were found in all of the elutriates, while concentrations of cadmium and cobalt were found in several. Dissolved aluminum, copper, and zinc were found in some of these samples at concentrations above the screening levels.

At the Sun Oil-Ft. Mifflin study area, samples taken at SFM-1-95 had concentrations of organics and metals that exceeded the bulk sediment screening levels. One of the elutriate samples from the upper strata of SFM-1-95 had ten total metals that exceeded screening levels, while both samples from the bottom layers had seven total metals above screening levels. The metals in the top layer included aluminum, cadmium, chromium, cobalt, copper, lead, mercury, silver, vanadium, and zinc. Dissolved copper and zinc were found in all layers at SFM-1-95, and dissolved aluminum and lead were found at an intermediate depth at concentrations exceeding the screening levels.

At the Sun Oil-Hog Island study area, sample results indicated that the upper layer of very soft organic silty clay contained levels of organics and metals that exceeded bulk sediment screening levels. Sediment samples taken from underlying layers were either not analyzed or did not contain contaminant concentrations above screening levels. The elutriate samples from the top layers contained total and dissolved aluminum, total cadmium, total cobalt, total and dissolved copper, total lead, total silver, total vanadium, and total and dissolved zinc at concentrations that exceeded or came close to the screening levels. At least one of the elutriates from underlying layers contained concentrations of total and dissolved aluminum, total cadmium, total cobalt, total and dissolved copper, total lead, total silver, and total and dissolved zinc above screening levels.

At the Sun Oil-Marcus Hook study area, one of the two bulk sediments from SMH-1-95 contained concentrations of metals above the bulk sediment screening levels. There were no other contaminants found in the sediments that exceeded screening levels at this location. The elutriate sample from the top layer from SMH-2-95 contained concentrations of total metals including aluminum, cadmium, copper, lead, silver, and zinc and dissolved metals including aluminum, copper, lead, and zinc that exceeded elutriate screening levels. The other elutriate samples from this study area had concentrations of

total aluminum, total and dissolved copper, total silver, and total zinc that exceeded the screening levels.

4.2 Comparison of Arithmetic Means with Criteria

Chemical constituents which were detected, or were reported as non-detected, at levels above the initial screening values were further evaluated by the "compliance averaging" procedure, as set forth by the Corps. Sample data for each berthing location and all berthing locations were considered for each constituent evaluated. Compliance averaging involved obtaining arithmetic mean concentrations for chemical constituents at individual berthing areas and at all berthing areas. Sample results were used in the calculations if constituents were detected. The laboratory reporting limit was utilized if a constituent was reported as non-detected in any of the samples. Appendix G contains data summaries for bulk sediment and elutriate sample analyses, specifically for constituents that were evaluated in the procedure for compliance averaging. The summaries include, for each berthing area and all berthing areas, the mean concentrations, the number of detections, and the detection range for constituents. Tables 6 and 7 contain the compliance averaging mean concentrations for bulk sediment and elutriate samples, respectively. The compliance averaging results for bulk sediment samples were compared to NJDEP Soil Cleanup criteria; and the results for elutriate samples were compared to the acute water quality criteria.

4.2.1 Bulk Sediment Samples

Compliance averaging of the constituents detected at concentrations above the initial screening levels and subsequent comparison to the NJDEP Soil Cleanup criteria revealed that mean concentrations at individual berthing areas for 14 of the organic and eight of the inorganic constituents were below the most stringent values established by the NJDEP Soil Cleanup criteria.

Constituents that had mean values that exceeded the Residential Direct Contact NJDEP Soil Cleanup criteria (most stringent) but were below the Non-Residential Direct Contact values (next most stringent) included eight organic constituents and one inorganic constituent. Of these, six of the organic compounds were reported by the laboratory as non-detected in all samples. 2,4-Dinitrotoluene was detected at mean concentrations of 1,192 µg/kg and 1,084 µg/kg at Conrail and Packer Ave. Terminal, respectively. The arithmetic means were above the Residential Direct Contact standard of 1,000 µg/kg but below the Non-Residential Direct Contact standard of 4,000 µg/kg. Indeno(1,2,3-cd)pyrene was detected in two samples from the Conrail location at levels below the NJDEP Soil Cleanup criteria; however, the arithmetic mean of 950 µg/kg for the berthing area was above the Residential Direct Contact Soil Cleanup criteria value of 900 µg/kg.

Table 6 - Compliance Averaging Mean Concentrations of Organics and Inorganics for Bulk Sediment Analyses

	Residential Direct Contact NJ Cleanup Criteria	Non-Residential Direct Contact NJ Cleanup Criteria	Impact to Groundwater NJ Cleanup Criteria	BPO	BST	CRC	PAT	SFM	SHI	SMH	ALL
Bis(2-chloroethyl)ether	660	3,000	10,000	[645]	[400]	[1,192]	[746]	[533]	[560]	[428]	[665]
N-Nitroso-di-n-propylamine	660	660	10,000	[645]	[400]	[1,192]	984	[533]	[560]	[428]	702
Hexachlorobutadiene	1,000	21,000	100,000	[645]	[400]	[1,192]	[746]	[533]	[560]	[428]	[665]
Acenaphthylene	NA	NA	NA	[645]	312	[1,192]	[746]	[533]	[560]	[428]	636
2,6-Dinitrotoluene	1,000	4,000	10,000	[645]	[400]	[1,192]	[746]	[533]	[560]	[428]	[665]
Acenaphthene	3,400,000	10,000,000	100,000	[645]	330	[1,192]	1,034	[533]	[560]	[428]	695
2,4-Dinitrotoluene	1,000	4,000	10,000	[645]	[400]	[1,192]	1,084	[533]	[560]	[428]	728
Fluorene	2,300,000	10,000,000	100,000	[645]	333	[1,192]	[746]	[533]	[560]	[428]	638
Hexachlorobenzene	660	2,000	100,000	[645]	[400]	[1,192]	[746]	[533]	[560]	[428]	[665]
Anthracene	10,000,000	10,000,000	100,000	[645]	350	948	584	383	415	[428]	522
Fluoranthene	2,300,000	10,000,000	100,000	245	695	640	526	535	350	312	486
Pyrene	1,700,000	10,000,000	100,000	263	537	630	880	520	360	313	548
3,3'-Dichlorobenzidine	2,000	6,000	100,000	[1,270]	[800]	[2,376]	[1,510]	[1,075]	[1,122]	[855]	[1,331]
Benzo(a)anthracene	900	4,000	500,000	172	458	396	386	467	299	[428]	373
Chrysene	9,000	40,000	500,000	210	450	474	389	513	320	[428]	406
Benzo(b)fluoranthene	900	4,000	50,000	195	398	426	396	463	302	[428]	382
Benzo(k)fluoranthene	900	4,000	500,000	192	408	192	320	435	305	[428]	454
Benzo(a)pyrene	660	660	100,000	179	364	330	311	292	159	[428]	297
Indeno(1,2,3-cd)pyrene	900	4,000	500,000	[645]	352	950	431	480	[560]	[428]	543
Dibenz(a,h)anthracene	660	660	100,000	[645]	[400]	[1,192]	[746]	[533]	[560]	[428]	[646]
Aldrin	40	170	50,000	[28]	[12]	[29]	[27]	[18]	[22]	[14]	[22]
Dieldrin	42	180	50,000	[58]	[24]	[57]	[54]	[35]	[43]	[27]	[42]
Endrin	17,000	310,000	50,000	[58]	[24]	[57]	[54]	30	[43]	[27]	43
Toxaphene	100	200	50,000	[575]	[243]	[568]	[535]	[350]	[433]	[270]	[423]
PCBs	490	2,000	50,000	116	[121]	237	230	202	164	[135]	165
Arsenic	20,000	20,000	NA	10,910	1,640	9,434	6,690	9,067	8,700	3,775	7,291
Cadmium	1,000	100,000	NA	1,188	85	3,214	1,678	997	1,510	168	1,351
Chromium	NA	NA	NA	55,975	16,175	73,560	48,250	54,817	59,350	22,250	36,669
Copper	600,000	600,000	NA	46,275	5,425	70,280	41,613	28,200	40,050	15,725	36,669
Lead	100,000	600,000	NA	57,100	4,350	88,020	49,700	39,117	53,600	10,200	44,954
Mercury	14,000	270,000	NA	318	[120]	420	265	287	358	[128]	275
Nickel	250,000	2,400,000	NA	29,650	4,855	26,260	20,138	18,983	20,975	14,425	19,598
Silver	110,000	4,100,000	NA	1,313	73	2,116	1,120	1,027	1,258	128	1,051
Thallium	2,000	2,000	NA	2,048	468	1,576	1,254	1,263	1,475	875	1,284
Zinc	1,500,000	1,500,000	NA	222,025	18,700	356,460	189,325	123,767	192,875	46,675	170,303

Note:

All concentrations reported in parts per billion (ug/kg), dry weight.

NA - Not Available

Shaded values exceed the most stringent NJDEP Cleanup Criteria.

[ ] - Value is average of reporting limits.

Table 7 - Compliance Averaging Mean Concentrations of Organics and Inorganics for Elutriate Analyses

	Acute Water Quality Criteria	BPO	BST	CRC	PAT	SFM	SHI	SMH	ALL
Hexachlorocyclopentadiene, total	5	[10]	[10]	[10]	[10]	[10]	[10]	[10]	[10]
Hexachlorocyclopentadiene, dissolved	5	[10]	[10]	[10]	[10]	[10]	[10]	[10]	[10]
2,4,6-Trichlorophenol, total	5	[10]	[10]	[10]	[10]	[10]	[10]	[10]	[10]
2,4,6-Trichlorophenol, dissolved	5	[10]	[10]	[10]	[10]	[10]	[10]	[10]	[10]
Phenanthrene, total	5	[10]	[10]	[10]	[10]	[10]	[10]	[10]	[10]
Phenanthrene, dissolved	5	[10]	[10]	[10]	[10]	[10]	[10]	[10]	[10]
Benzo(a)anthracene, total	0.5	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Benzo(a)anthracene, dissolved	0.5	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
1,2-Diphenyl-n-hydrazine, total	15	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]
1,2-Diphenyl-n-hydrazine, dissolved	15	[100]	[100]	[100]	[100]	[100]	[100]	[100]	[100]
Toxaphene, total	0.37	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Toxaphene, dissolved	0.37	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Chloropyrifos, total	0.083	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Chloropyrifos, dissolved	0.083	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Parathion, total	0.065	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Parathion, dissolved	0.065	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Formeldehyde, total	2180	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]
Formeldehyde, dissolved	2180	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]	[5,000]
Aluminum, total	750	57,875	26,710	101,060	93,125	192,500	119,250	31,441	95,612
Aluminum, dissolved	750	1,053	159	2,475	7,296	7,415	2,707	769	3,828
Cadmium, total	1.79	3.28	0.57	8.86	6.15	9.27	6.38	5.40	6.05
Cadmium, dissolved	1.79	0.34	0.58	0.88	0.39	0.42	[0.3]	[0.3]	0.46
Chromium III, total	984	278	64	423	306	813	505	125	381
Cobalt, total	95	51	22	84	71	121	85	26	70
Copper, total	9.22	243.0	60.2	340.1	197.5	375.0	279.7	165.6	243.6
Copper, dissolved	9.22	97.3	185.6	58.2	53.2	89.2	108.8	36.0	84.6
Lead, total	33.8	261.7	32.0	369.2	224.7	464.0	339.7	196.6	278.5
Lead, dissolved	33.8	14.4	5.9	34.1	14.9	22.5	13.9	10.3	17.2
Mercury, total	2.4	0.8	0.2	1.2	0.6	1.7	1.0	0.7	0.9
Mercury, dissolved	2.4	0.7	0.4	1.8	0.4	0.2	[0.2]	0.3	0.6
Silver, total	0.92	4.3	1.0	43.8	6.0	10.5	8.4	7.4	11.8
Silver, dissolved	0.92	[0.6]	[0.6]	7.9	0.6	[0.6]	[0.6]	[0.6]	1.7
Vanadium, total	515	201	80	372	215	527	354	77	274
Zinc, total	65	842	233	1,624	1,188	1,409	1,161	660	1,076
Zinc, dissolved	65	118	104	233	142	159	130	49	139

Notes:

All concentrations reported in parts per billion (ug/L).

Shaded values exceed Acute Water Quality Criteria.

[ ] - Value is average of reporting limits.

Mean concentrations of cadmium in four individual berthing areas were above the Residential Direct Contact Cleanup standard of 1,000 µg/kg, but below the Non-Residential standard of 100,000 µg/kg. The highest mean concentration of cadmium, 3,214 µg/kg, was found at the Conrail facility.

The means representing individual berthing locations for three organic compounds were above the NJDEP Residential and Non-Residential Direct Contact criteria, but below the Impact to Groundwater criteria. N-nitroso-di-n-propylamine was detected in two individual samples and was present at a mean concentration of 984 µg/kg at the Packer Ave. Terminal, which exceeded the criteria value of 660 µg/kg. N-nitroso-di-n-propylamine was reported as non-detected at the Conrail facility at mean levels exceeding the criteria value; while dibenz(a,h)anthracene was reported as non-detected at the Packer Ave. Terminal and the Conrail facility at mean levels exceeding the criteria value of 660 µg/kg. Toxaphene, reported as non-detected in all samples, had mean concentrations above the Residential criteria value of 100 µg/kg and the Non-Residential value of 200 µg/kg at all locations.

The average thallium result at the BP Oil location exceeded the Residential and Non-Residential values, which were both 2,000 µg/kg. There is no Impact to Groundwater criteria value for thallium. Average thallium results for all other individual berthing areas, and for all berthing areas, were below the Residential and Non-Residential value.

The arithmetic means calculated for all berthing locations for a total of five organic compounds and one metal exceeded the most stringent NJDEP criteria. Exceedences for these constituents, specifically bis(2-chloroethyl)ether, hexachlorobenzene, dieldrin, and toxaphene resulted from the laboratory's reporting limit, which was not as low as criteria values, since the compounds were not detected in any samples. N-nitroso-di-n-propylamine and cadmium mean calculations included concentrations which were well below the Impact to Groundwater and the Non-Residential Direct Contact criteria values, respectively.

4.2.2 Elutriate Samples

Organic compounds were not present at average concentrations above the criteria except those compounds that had laboratory reporting limits above the criteria. The averages for organic compounds at each of the berthing areas and all of the berthing areas that exceeded the criteria were the averages of the laboratory reporting limits.

Inorganic constituents that had arithmetic means above criteria values for each individual berthing area and all berthing areas included total aluminum, total and dissolved copper, total silver, and total zinc. The means for dissolved aluminum, total cadmium, and total lead exceeded criteria values at each individual location, except for Beckett Street Terminal, and the mean for each of these constituents for all locations exceeded criteria.

The means for dissolved zinc were above the criteria value of 65 µg/L for each berthing area except the Sun Oil - Marcus Hook location, and for the entire study area.

Compliance averaging showed that a number of analytes detected in elutriate samples above criteria values were found only in specific samples or locations, rather than the entire study area. When averaged, dissolved cadmium, total chromium, and total and dissolved mercury were not detected at levels above their respective criteria values in each of the individual berthing areas. The mean total cobalt result of 121 µg/L was above the criteria value of 95 µg/L in only one berthing area, Sun Oil - Ft. Mifflin; and the mean for all berthing areas was 70 µg/L, which was below the criteria value. The mean dissolved lead result of 34.1 µg/L for the Conrail study area exceeded the criteria value of 33.8 µg/L, while the means for the other berthing areas and the mean for all berthing areas were lower than the criteria value. Dissolved silver was detected in one sample at the Conrail study area at 37.2 µg/L, which exceeded the criteria value of 0.92 µg/L. It was detected only at very low levels at the other locations, but the average value for all berthing areas was above the criteria value due to this isolated sample result. The average of total vanadium was 527 µg/L for one berthing area, Sun Oil - Ft. Mifflin, which was above the criteria value of 515 µg/L. Means for all other areas and the mean for all berthing areas were below the criteria.

4.2.3 Comparisons with Criteria by Berthing Areas

General summaries of compliance averaging results compared with NJDEP Soil Cleanup criteria and acute water quality criteria, as appropriate, are listed for each of the seven berthing locations.

At the BP Oil location, both dieldrin and toxaphene had bulk sediment mean results above the NJDEP Residential Direct Contact criteria, which were the most stringent values for comparison. The average for dieldrin was below the Non-Residential Direct Contact criteria; while the average for toxaphene was well below the Impact to Groundwater standard. The organic compounds were not detected in any of the individual samples, but were reported by the laboratory at concentrations that exceeded the criteria. Mean cadmium was above the NJDEP Residential Direct Contact criteria, and below the Non-Residential Direct Contact criteria. The mean result for thallium in bulk sediment samples was above Residential and Non-Residential Direct Contact criteria, and no criteria value for Impact to Groundwater was available. Compliance averaging results of the elutriate results for the berthing area indicated that organic compounds reported at concentrations above initial screening levels in individual samples had mean results that exceeded the applicable criteria. Averages of the metals data in elutriates exceeded the criteria for total metals including aluminum, cadmium, copper, lead, silver, and zinc; and dissolved metals including aluminum, copper, and zinc. Of the inorganic constituents detected in individual samples above the initial screening levels, only dissolved lead was not found at an average concentration in the berthing area above the criteria.

At the Beckett Street Terminal study area, compliance averaging results indicated that means for detected constituents in bulk sediment samples were below the most stringent NJDEP criteria except for one constituent, toxaphene. Toxaphene was not detected in any individual samples, but the mean obtained from compliance averaging was above NJDEP Residential and Non-Residential Direct Contact criteria. Averaging of elutriate data showed that, of the metals that were detected at concentrations above the initial screening levels, only means for total lead were below the acute water quality criteria. Metals that had mean concentrations above the criteria included total aluminum, total and dissolved copper, total silver, and total and dissolved zinc.

At the Conrail study area, mean results for 11 organic and one inorganic constituents tested for in the bulk sediment samples exceeded NJDEP Residential Direct Contact criteria. Mean results for three of the organics, n-nitroso-di-n-propylamine, dibenz(a,h)anthracene, and toxaphene, were also above the Non-Residential Direct Contact criteria. The three compounds reported at concentrations above the Non-Residential values were not detected in any individual samples. Only mean toxaphene results exceeded the Impact to Groundwater criteria. Mean elutriate sample results had metals present above the applicable criteria. Total metals included aluminum, cadmium, copper, lead, silver, and zinc; while dissolved phases of the same metals except for cadmium also exceeded criteria values. Metals detected above initial screening levels in individual samples from the berthing area that did not have means above the criteria included total cobalt, total and dissolved mercury, and total vanadium.

At the Packer Avenue Terminal study area, compliance averaging results for bulk sediment samples indicated that seven organic compounds and cadmium were present at mean levels that exceeded the Residential Direct Contact criteria. Two of the organics also were detected at mean concentrations that exceeded the Non-Residential Direct Contact criteria but were below the Impact to Groundwater values, including n-nitroso-di-n-propylamine and dibenz(a,h)anthracene. A third compound, toxaphene, was reported at a mean concentration above the Impact to Groundwater criteria. Of these three compounds, only n-nitroso-di-n-propylamine was detected in any of the samples at the berthing area. Mean metals data that were above the acute water quality criteria included total aluminum, cadmium, copper, lead, silver, and zinc; and dissolved aluminum, copper, and zinc. Total cobalt was the only metal that was detected at concentrations above the initial screening levels in individual samples with a mean result below the criteria.

At the Sun Oil-Ft. Mifflin study area, compliance averaging of results for bulk sediments indicated that toxaphene was the only constituent that was present at a mean concentration above the applicable criteria. As with other areas, toxaphene was not detected in any of the individual samples. Averaging of elutriate results showed that several inorganic constituents were detected at mean concentrations above the criteria. These included total and dissolved aluminum, total cadmium, total cobalt, total and dissolved copper, total lead, total silver, and total and dissolved zinc. Metals detected above the initial screening

levels in one or more samples that were not present at mean concentrations above the acute water quality criteria included total chromium, dissolved lead, and total mercury.

At the Sun Oil-Hog Island study area, bulk sediments contained mean concentrations of toxaphene and dieldrin that exceeded the Residential Direct Contact criteria (most stringent value); however, the compounds were undetected in all of the individual samples. The mean for dieldrin was below the Non-Residential Direct Contact criteria; and the mean for toxaphene was below the Impact to Groundwater criteria. The mean cadmium concentration in bulk sediment samples was above the Residential Direct Contact criteria, and below the Non-Residential Direct Contact criteria. Compliance averaging of elutriate results indicated that mean data for organic and inorganic constituents were above the acute water quality criteria. Organic compounds were not detected in any of the individual samples, but were reported as undetected at concentrations that exceeded the initial screening levels. Inorganic constituents were detected in samples, and mean concentrations of the following metals were above the criteria: total and dissolved aluminum, total cadmium, total and dissolved copper, total lead, total silver, and total and dissolved zinc.

At the Sun Oil-Marcus Hook study area, results of compliance averaging for bulk sediment data indicated that only toxaphene was reported at a mean concentration that exceeded the applicable criteria. Toxaphene was not detected in any of the samples. Mean elutriate results for total metals that exceeded the acute water quality criteria data included aluminum, cadmium, copper, lead, silver, and zinc; while mean results that exceeded criteria for dissolved metals included aluminum, copper, silver, and zinc. Of the metals detected in individual samples above initial screening levels, only dissolved lead and zinc were not present at mean levels that exceeded the criteria for elutriate samples.

5.0 Conclusions

The chemical results of the bulk sediments and elutriate tests were evaluated against relevant regulatory criteria. The evaluation consisted of two steps. First, individual chemical concentrations were compared to the most stringent NJDEP Soil Cleanup criteria and literature values derived from ecological and human health risk studies (bulk sediments) and acute water quality criteria (elutriates). Exceedences were noted for further evaluation during the second step, i.e., using the Corps compliance averaging procedures. The compliance averaging consists of calculating the means of chemical concentrations for both individual berthing areas and all berthing areas. Only the NJDEP Soil Cleanup criteria were used for comparison of the mean bulk sediment results; while the mean elutriate results were compared with the same set of standards noted in the first step.

Some of the chemicals had laboratory detection limits higher than the screening values that were used in the first step evaluation. The reported detection limits were included in the compliance averaging in order to further compare the averages to applicable criteria. Mean bulk sediment results were compared to NJDEP Soil Cleanup criteria only, which consist of less stringent values than those established by ecologically-based studies. The NJDEP Soil Cleanup criteria include Residential Direct Contact, Non-Residential Direct Contact, and Impact to Groundwater criteria.

When averaged for individual berthing areas, the concentrations of several chemicals present in bulk sediment samples were above the most stringent values specified by the NJDEP Residential Direct Contact criteria. The mean concentrations of most of these chemicals, when compared to Non-Residential Direct Contact values, were below the criteria. Chemicals that had mean concentrations that exceeded the Non-Residential criteria included three organic and one inorganic constituents. The organic compounds were below the Impact to Groundwater criteria. An Impact to Groundwater value for the inorganic constituent, thallium, was not available.

Mean concentrations of nine organic compounds in the elutriate tests exceeded the acute water quality criteria. None of the compounds were reported by the laboratory as detected; however, the criteria values were below the laboratory detection limits. The mean concentrations of a number of metals exceeded the acute water quality criteria. The concentrations of four total metals and one dissolved metal, when averaged for each of the seven respective berthing areas and over all berthing areas, exceeded the criteria. The metals included total aluminum, total and dissolved copper, total silver, and total zinc. Other metals that were above the criteria, when averaged over all berthing areas, included dissolved aluminum, total cadmium, total lead, dissolved silver, and dissolved zinc. Additional analytes present at mean concentrations that exceeded the criteria were found only in specific berthing areas, rather than in the entire study area. The metals included total cobalt and total vanadium, which were present at mean concentrations above criteria

values at the Sun Oil-Ft. Mifflin area; and dissolved lead, which was present at a mean concentration above its criteria value at the Conrail study area.

Results of the compliance averaging data analysis indicate that the bulk sediments generally do not contain concentrations of chemical constituents that pose a threat to human health, either through direct contact or impact to groundwater. Although the Residential and Non-Residential Direct Contact standards, which were the most stringent criteria, were exceeded for a number of constituents, these are not believed to be applicable standards because disposal of the material would be at a dredged disposal site where direct contact would be minimal. Compliance averaging results of all bulk sediment constituents are below the Impact to Groundwater criteria; therefore, the human health risk via groundwater exposure should be minimal.

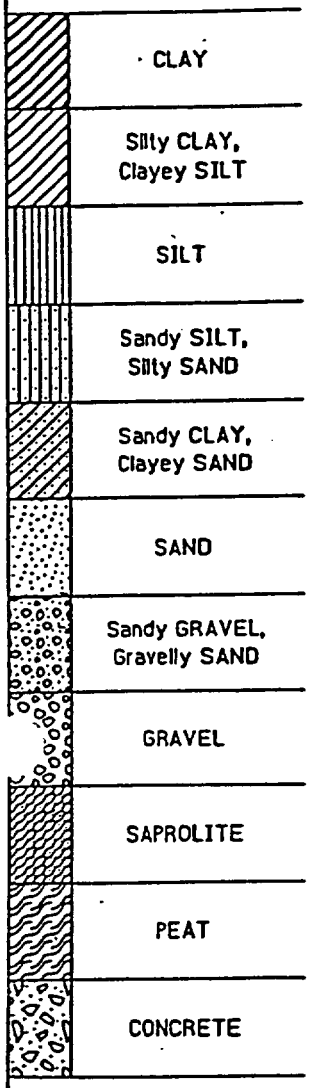
The elutriates contained average concentrations of chemicals that were above criteria values, which were designed to indicate potential degradation of surface water quality during dredging and groundwater after disposal. The compliance averaging procedure did not provide meaningful comparison for organic compounds in the elutriate tests because some compounds, even though undetected, had laboratory detection limits slightly higher than the applicable criteria. It is therefore unlikely that these organics would be present in the elutriates at levels comparable to the criteria.

Metals may pose a problem during dredging and disposal based on the compliance averaging results for elutriate samples. The concentrations of some metals in the elutriate samples exceeded criteria when averaged for both individual berthing areas and all berthing areas. This indicates that there is potential impact on water quality during dredging. In contrast, the concentration of other metals in the elutriate samples exceeded criteria only when averaged for specific berthing areas. The potential problem associated with these metals may be only surface water quality during dredging operations. Because dredged materials from all berthing areas may be combined and disposed of at the same disposal location, impact of these metals to groundwater may not be significant.

BLACK & VEATCH Waste Science, Inc.

BORING LOG LEGEND

GRAPHIC LOG



SAMPLE TYPE

- SPT (Split Barrel)
- TW (Thin Walled Tube)
- PI (Piston)
- P (Pitcher)
- CA (California)
- GB (Grab or Bag sample)

TERMINOLOGY

GRAVEL	1/4 inch to 3 inches
COBBLE	3 inches to 12 inches
BOULDER	>12 inches
60°	Angle of perpendicular to axis of core
TRACE	1-10% by volume
SOME	10-25% by volume
MODIFIER	>25% by volume
	Length of sample recovered, in feet

Bedding Terminology

LAMINATED	<0.1 inch
THIN BEDDED	0.1 inch to 1.2 inches
MEDIUM BEDDED	1.2 to 12 inches
MASSIVE	Denotes bedding >12 inches or no discernable internal bedding

Weathering Terminology

FRESH	The rock shows no discoloration, loss of strength, or any other effect due to weathering (unweathered rock).
SLIGHTLY WEATHERED	Rock is slightly discolored with a slightly lower strength than unweathered rock.
MODERATELY WEATHERED	Rock is considerably discolored with a significantly lower strength than unweathered rock.
HIGHLY WEATHERED	Rock is discolored and weakened so intensely that 2-inch diameter rock cores can be broken readily by hand. Wet strength is usually much lower than dry strength.

N VALUE Sum of blows to drive a standard split barrel the 2nd and 3rd six inches using a 140 pound hammer falling 30 inches. Blows for all six inch intervals shown, if available. Refusal recorded as blows in excess of 50/inches less than 6.

SOIL CONSISTENCY

COHESIVE

DESCRIPTION	SPT N VALUE
Soft	0-4
Firm	4-8
Stiff	8-16
Very Stiff	16-32
Hard	>32

GRANULAR

DESCRIPTION	SPT N VALUE
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	>50

Corps – Phila. District

Vibracore Sampling

Hole No.BPO-1-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 655975.70 E, 660083.74 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): BPO-1-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 7.4 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker H 10)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 3 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES
15. WATER DEPTH: 47.0 ft.
16. DATE HOLE: STARTED 5/2/95 COMPLETED 5/2/95
17. ELEVATION TOP OF HOLE: -41.9 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 7.4 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SMCook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-41.9	.0					
			Organic Clayey Silt: dark green-gray; very loose; nonplastic; wet; sticky; w/trace undecomposed organic matter; trace fine sand.			Petroleumlike odor Headspace = 400 ppm BPO-1-95-C-0 puddinglike grading to spongy consistency below top several feet; BPO-1-95-G-0 collected from 2 to 3 feet. Pocket Penetrometer (PP) <0.25 tsf
-48.1	6.2		Sand: gray; very dense; well graded; w/some well-rounded, spherical gravel, some silt.			~15% silt by settling volume 3.5 inch diameter cobble inside 3.5 inch liner. BPO-1-95-C,G-6.2 Headspace = 26 ppm
-49.3	7.4		Total recovery was estimated using the strata break to correlate the three attempts. The third attempt sample correlated higher than expected, reducing the total depth of penetration to 7.4 feet.			End of Boring at 7.4 feet. Three sample attempts were made: First attempt had 2.0' recovery; second attempt had 4.33' recovery; Alpine jetted to past four feet on the third attempt, then recovered 4.4 feet. Northing & Easting in Delaware State Plane (NAD '83) Coordinates Coord.s listed are for third run.

0 1 2 3 4 5 6 7 8 9

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT: Berthing Area Vibracore Sampling | HOLE NUMBER: BPO-1-95

Hole No.BPO-2-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling	10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
2. LOCATION (Coordinates or Station): 658677.90 E, 659705.09 N	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (Tied to CG&S marker H 10)
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.	12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
4. HOLE NO. (As shown on drawing title and file number): BPO-2-95	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
5. NAME OF DRILLER: Chris Moore	14. TOTAL NUMBER OF CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED	15. WATER DEPTH: 45.0 ft.
7. THICKNESS OF OVERBURDEN	16. DATE HOLE STARTED: 5/2/95 COMPLETED: 5/2/95
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -40.8 Ft.
9. TOTAL DEPTH OF HOLE: 10 Ft.	18. TOTAL CORE RECOVERY FOR BORING: 8.3 Ft.
	19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-40.8	.0					
			Organic Clayey Silt; dark green-gray; very loose; nonplastic; wet; sticky; w/trace undecomposed organic matter; trace very fine to fine sand; trace mica.			Top ~4 inches liquid as open the core. organic odor Headspace = 250 ppm BPO-2-95-C-0 Pocket Penetrometer (PP) <0.25 tsf Puddinglike grading to spongy consistency below top several feet; BPO-2-95-G-0 collected from 2 to 4.1 feet.
						BPO-2-95-C-4.1 Headspace = 200 ppm
			As above, slightly more firm.			BPO-2-95-G-4.1 collected from 7 to 8.3 feet. Pocket Penetrometer (PP) <0.25 tsf One sample attempt was made, recovering 8.3 feet.
-49.1	8.3					Northing and Easting in Delaware State Plane (NAD '83) Coordinates End of Boring at 10 feet.

0 1 2 3 4 5 6 7 8 9

ENG FORM 1838 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT: Berthing Area Vibracore Sampling | HOLE NUMBER: BPO-2-95

Hole No.BST-1-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling	10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
2. LOCATION (Coordinates or Station): 735833.40 E, 704307.23 N	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker Tidal 23)
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.	12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
4. HOLE NO. (As shown on drawing title and file number): BST-1-95	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 2 undisturbed: 0
5. NAME OF DRILLER: Chris Moore	14. TOTAL NUMBER OF CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED	15. WATER DEPTH: 39.1 ft.
7. THICKNESS OF OVERBURDEN	16. DATE HOLE STARTED: 4/30/95 COMPLETED: 4/30/95
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -38.2 Ft.
9. TOTAL DEPTH OF HOLE: 8.7 Ft.	18. TOTAL CORE RECOVERY FOR BORING: 6.67 Ft.
	19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-38.2	.0					
			Sand; dark gray-green; fine to medium grained; poorly graded; hydrocarbonlike odor; wet; clean; trace mica.			BST-1-95-C,G-0 Hydrocarbonlike odor
-39.0	.8		Base 2" is Organic Sandy Clay; black; wet; low plasticity; medium grained sand; trace gravel; trace mica.			
-39.2	1.0		Sand; brown-gray; mostly medium grained; gap-graded; w/some rounded gravel; trace coarse sand; trace silt.			BST-1-95-C,G-1 Headspace = 52 ppm Occasional spots of dark green and yellow-brown silty sand <1/2" thick, not continuous across sample.
-40.4	2.2		4 inches of liquified Sandy Silt/Clay; red.			
-40.8	2.6		Sand; brown; medium grained; well graded; w/some gravel; some fines. Base coarsens to Gravel w/binder of clay, silt, and sand. Maximum particle axis of 3-1/4" on one flat rounded cobble.			
-42.0	3.7		Clay; red-brownish w/some white and yellow-brown; medium stiff; moist; highly plastic; w/trace fine to medium sand.			BST-1-95-C,G-3.75 Headspace = 10 ppm Indented over 1/4" by thumb w/moderate pressure. Molded by strong finger pressure. Pocket Penetrometer (PP) = 2.4 tsf Torvane range 6.4-11.25 kg/cm² Torvane taken on a vertical surface. Two sample attempts. Vibracore penetrometer cable severed on first attempt, fixed and then broken on second attempt. Northing & Easting in Delaware State Plane (NAD '83) Coordinates.
-46.5	8.3					End of Boring at 8.67 feet. Penetration measured by sediments on outside of drive pipe. Coord.s listed are for the 2nd run

ENG FORM 1838 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT: Berthing Area Vibracore Sampling | HOLE NUMBER: BST-1-95

Hole No.BST-2-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 735744.54 E, 704196.31 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): BST-2-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 10 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker Tidal 23)
12. MANUFACTURER'S DESIGNATION OF DRILL: 2715 Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES:
15. WATER DEPTH: 43.9 ft.
16. DATE HOLE: STARTED 5/3/95 COMPLETED 5/3/95
17. ELEVATION TOP OF HOLE: -41.4 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 9.85 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SMCook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-41.4	.0					
-41.6	.2		Top 0.2' Organic Clayey Silt; dark gray-green; nonplastic, puddinglike texture. Sand; dark gray; medium grained; poorly graded; wet; organic odor; w/trace mica; trace organic material.			BST-2-95-C,G-0 Headspace (h.s.) = 68 ppm OVA background for h.s. = 6.4 ppm Dark brown-black silt 5-10% by settling volume.
-42.2	.7					
-42.6	1.2		Clay; red-tan; hard; highly plastic; moist; no dilitancy reaction.			BST-2-95-C,G-0.75 Headspace = 8 ppm
			Silty Sand; white-cream; hard; very fine to fine grained; wet; poorly graded; rapid dilatant reaction.			White silt ~25% by settling volume; no easily visible break observed between very fine sand and silt.
			trace light yellow silt, immediate dilatancy reaction			
			Predominantly very fine sand, immediate dilatancy reaction			
						Pocket Penetrometer (PP) > 4.5 tsf Horizontal Torvane 11.25 kg/cm^2 Vertical Torvane 6.25 kg/cm^2

(continued)

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: BST-2-95

Hole No.BST-2-95

DRILLING LOG (Cont. Sheet)

ELEVATION TOP OF HOLE: -41.4 Ft.

PROJECT: Berthing Area Vibracore Sampling

INSTALLATION: PHILADELPHIA DISTRICT

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-50.4	9.0					
						One sample attempt made. 9.85 feet recovery
-51.2	9.9					End of Boring at 10 feet.
						Northing & Easting in Delaware State Plane (NAD '83) Coordinates

Hole No.CRC-1-95

DRILLING LOG | DIVISION: NAD | INSTALLATION: PHILADELPHIA DISTRICT | SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling	10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
2. LOCATION (Coordinates or Station): 734117.51 E, 690592.85 N	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker Tidal 23)
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.	12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
4. HOLE NO. (As shown on drawing title and file number): CRC-1-95	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
5. NAME OF DRILLER: Chris Moore	14. TOTAL NUMBER OF CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED	15. WATER DEPTH: 42 ft.
7. THICKNESS OF OVERBURDEN	16. DATE HOLE STARTED: 5/1/95 COMPLETED: 5/1/95
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -36.6 Ft.
9. TOTAL DEPTH OF HOLE: 10 Ft.	18. TOTAL CORE RECOVERY FOR BORING: 8.5 Ft.
	19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-36.6	.0					
			Organic Silty Clay; brown; very soft; low to nonplastic; wet to very moist; sticky; w/some roots, leaves, and undecomposed organic matter; trace fine sand. Grades firmer with depth.			Pocket Penetrometer (PP) < 0.25 tsf OVA background = 7.6 ppm Hydrocarbonlike odor Headspace = >1000 ppm CRC-1-95-C,G-0 Puddinglike consistency CRC-1-95-C,G-3.5 PP < 0.25 tsf Northing & Easting in Delaware State Plane (NAD '83) Coordinates
-45.1	8.5					End of Boring at 10 feet

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ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT: Berthing Area Vibracore Sampling | HOLE NUMBER: CRC-1-95

Hole No.CRC-2-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

1. PROJECT: Berthing Area Vibracore Sampling	10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
2. LOCATION (Coordinates or Station): 733678.31 E, 690678.55 N	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker Tidal 23)
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.	12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pnuematic Vibracore
4. HOLE NO. (As shown on drawing title and file number): CRC-2-95	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 2 undisturbed: 0
5. NAME OF DRILLER: Chris Moore	14. TOTAL NUMBER OF CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED	15. WATER DEPTH: 46.5
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED 5/1/95 COMPLETED 5/1/95
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -40.3 Ft.
9. TOTAL DEPTH OF HOLE: 9.5 Ft.	18. TOTAL CORE RECOVERY FOR BORING: 9.5 Ft.
	19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SMCook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-40.3	.0					
			Organic Silty Clay: brown; low to nonplastic; wet to very moist; sticky; trace rounded coarse sand; trace roots and undecomposed organic material (leaf at 1.4 feet); trace mica; trace fine sand.			Soupy Silt on top Top ~0.5 foot liquid (Torvane = 0, Pocket Penetrometer = 0) OVA background = 7.6 ppm Hydrocarbonlike odor Breathing Zone = 10 ppm OVA average on sample 30-100 ppm, peak at 710 ppm in void pocket at 2.5 feet. CRC-2-95-C-0 Headspace = 800 ppm Top has puddinglike consistency; Torvane = 1.3 kg/cm^2 PP = 0.3 tsf CRC-2-95-G-0 taken from 4-4.5 feet
-44.8	4.5		Sand; gray; medium grained; subangular; very poorly graded; mostly quartz; ~15% dark minerals; trace silt/clay lumps; trace roots.			CRC-2-95-C,G-4.5 OVA 10-50 ppm Silt/Clay lumps have stonger odor than sand
-46.8	6.5					
-47.0	6.7		Silt lens 2 inches thick. Two others below, <1/2 inch thick			
-47.7	7.4		Silty Clay: dark brown; moist; as base of Organic Silty CLAY layer above.			CRC-2-95-C-7.4 No geotech sample taken due to small volume spongy feel
-48.6	8.3					
-48.9	8.6		Sand			
-49.2	8.9		Silty Clay			
						(continued)

Hole No.CRC-2-95

DRILLING LOG (Cont. Sheet)

ELEVATION TOP OF HOLE -40.3 Ft.

PROJECT: Berthing Area Vibracore Sampling

INSTALLATION: PHILADELPHIA DISTRICT

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-49.3	9.0					
-49.5	9.2		Sand			
-49.8	9.5		Silty Clay			

End of Boring at 9.5 feet

Two attempts made to recover sufficient sample volume.
On initial attempt vibrator head not working at start.

Sediment cores correlated from attempts by using strata breaks.

Northing & Easting in Delaware State Plane (NAD '83) Coordinates

Coordinates and elevations listed are for the 1st run.

Hole No.PAT-1-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 735571.44 E, 693100.79 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): PAT-1-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 10 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (correlated to C&GS marker Tidal 23)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES
15. WATER DEPTH: 46.0 ft.
16. DATE HOLE: STARTED 5/1/95 COMPLETED 5/1/95
17. ELEVATION TOP OF HOLE: -38.8 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 8.75 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH — SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-38.8	.0					
			Organic Silty Clay; brown; very soft; low plasticity; wet; w/some wood and undecomposed organic matter; trace fine sand; trace mica.			PAT-1-95-C,G-0 Organic odor spongy feel Headspace (hs) bkgrnd = 6.4 ppm hs = 120 ppm Pocket Penetrometer (PP) < 0.25 tsf
-41.1	2.3		Base 2 inches darker brown-black			
			Gravelly Sand; brown and gray; mostly medium to coarse sand; well to gap-graded; gravel is primarily coarse sized, rounded; trace silt.			PAT-1-95-C,G-2.3 <10% silt by settling volume hs = 12 ppm
			More Silty (brown)			
			Sand, some gravel			
			Sandy Gravel			
-47.5	8.7					Northing & Easting in Delaware State Plane (NAD '83) Coordinates
						End of Boring at 10 feet.

0 1 2 3 4 5 6 7 8 9

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: PAT-1-95

Hole No.PAT-2-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 735192.11 E, 692351.76 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): PAT-2-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 10 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker Tidal 23)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES
15. WATER DEPTH: 37.0 ft.
16. DATE HOLE: STARTED 5/1/95 COMPLETED 5/1/95
17. ELEVATION TOP OF HOLE: -33.4 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 8.1 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-33.4	.0					
			Organic Silty Clay: dark brown; very soft; low plasticity; wet; w/trace leaves and undecomposed organic matter; trace mica.			PAT-2-95-C,G-0 Hydrocarbonlike odor spongy feel Headspace (hs) background = 6.4 ppm hs = 110 ppm
			Slightly more firm at base of strata.			Pocket Penetrometer (PP) < 0.25 tsf
-40.2	6.8		Sand: gray; medium grained; poorly graded; w/some gravel; trace silt.			PAT-2-95-C,G-6.8 <10% silt by settling volume hs = 38 ppm
-41.0	7.6		Organic Silty Clay: dark brown-black-green; very soft; low plasticity; moist; firmer than above; w/trace to some gravel; trace fine sand in laminations; trace organic matter; trace mica.			PAT-2-95-C,G-7.6 hs = 12 ppm spongy feel
-41.5	8.1					End of Boring at 10 feet. Northing & Easting in Delaware State Plane (NAD '83) Coordinates

0 1 2 3 4 5 6 7 8 9

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. MAR 71

PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: PAT-2-95

Hole No.PAT-3-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 735083.39 E, 692031.53 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): PAT-3-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 10 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker Tidal 23)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 2 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES:
15. WATER DEPTH: 36.1 ft.
16. DATE HOLE STARTED: 5/1/95 COMPLETED: 5/1/95
17. ELEVATION TOP OF HOLE: -33.3 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 8.5 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC ×	BOX NUMBER	REMARKS (If significant)
-33.3	.0					
			Organic Silty Clay: dark gray-brown; very soft; low plasticity; wet; w/trace leaves and undecomposed organic matter; trace mica.			PAT-3-95-C,G-0 PAT-3-95-C-0-MS,MSD Headspace (hs) bkgrnd = 6.4 ppm hs = 92 ppm spongy feel
						Pocket Penetrometer (PP) < 0.25 tsf Horizontal Torvane = 1.04 kg/cm²
-38.8	5.5		Sand: gray; medium grained; poorly graded; w/trace silt. Transition has ~3 inches Gravelly Silt			PAT-3-95-C,G-5.5 hs = 11 ppm Started second attempt at >5, <8 feet depth after jetting, according to penetrometer record.
-39.5	6.2		Organic Silty Clay: dark brown-black-green; very soft; low plasticity; moist; firmer than above; trace fine sand in laminations; trace organic matter; trace mica.			PAT-3-95-C,G-6.25 hs = 94 ppm spongy feel
						PP = 0.5 tsf Horizontal Torvane = 1.8 kg/cm²
-41.8	8.5					

(continued)

Hole No.PAT-3-95

DRILLING LOG (Cont. Sheet)

ELEVATION TOP OF HOLE -33.3 Ft.

PROJECT: Berthing Area Vibracore Sampling

INSTALLATION: PHILADELPHIA DISTRICT

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-42.3	9.0					Two sample attempts correlated between samples by lining up top of sand strata. Depths set according to recovery from the first run. Total adjusted recovery depth 8.5 feet. The top of sand shifted 0.1 feet deeper in second run if jetting went to 5 feet. Also, the sand increased from 0.75" to 1.6" thick between the first and second runs. End of Boring at 10 feet.

Northing & Easting in Delaware State Plane (NAD '83) Coordinates

Coordinates and elevations listed are for the 1st run.

Hole No.PAT-4-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 734969.71 E, 691551.94 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): PAT-4-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 10 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker Tidal 23)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES
15. WATER DEPTH: 40.3 ft.
16. DATE HOLE STARTED: 4/30/95 COMPLETED: 4/30/95
17. ELEVATION TOP OF HOLE: -37.5 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 9.0 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH — SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-37.5	.0					
			Organic Silty Clay; dark gray-brown; very soft; low to nonplastic; wet; trace mica.			PAT-4-95-C,G-0 spongy feel
-39.2	1.7					
-39.5	2.0		Gravelly Sand lens; very fine to coarse graded; rounded; well graded; w/some silt; 4" thick.			
-39.7	2.2					
-40.1	2.6		Gravelly Sand lens, as above.			
			Organic Silty Clay; dark gray-brown; very soft; low plasticity; moist; slightly firmer than above; trace fine sand in laminations; trace mica.			Strata break confirmed from observation of other PAT samples. spongy feel
						PAT-4-95-C,G-5
			Organic Silty Clay; as above w/trace coarse sand/fine gravel (several pieces over 4 feet).			
			Softer at 6.5'-7.5' w/trace sand (more than 2.5'-6.5'); wetter.			
						One sample attempt. 9.0 feet recovery. Northing & Easting in Delaware State Plane (NAD '83) Coordinates
			~15% sand in 8.4'-8.7', and wetter than above.			End of Boring at 10 feet.
-46.5	9.0					

0 1 2 3 4 5 6 7 8 9

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PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: PAT-4-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 712429.84 E, 681164.17 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): SFM-1-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 10 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker C 10)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES:
15. WATER DEPTH: 42 ft.
16. DATE HOLE STARTED: 5/3/95 COMPLETED: 5/3/95
17. ELEVATION TOP OF HOLE: -40.8 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 9.84 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-40.8	.0					
-41.3	.5		Silty Sand; gray; fine to medium grained; poorly graded; wet.			SFM-1-95-C,G-0 Strong hydrocarbonlike odor Headspace = >1000 ppm Silt 30% by settling volume, easily seen break between sand and silt.
-41.5	.7					
-41.8	1.0		Organic Silty Clay; dark gray-green; very soft; low to nonplastic; wet; sticky; w/some roots, wood, and other undecomposed organic matter with depth.			SFM-1-95-C,G-1 puddinglike consistency Headspace = 840 ppm Pocket Penetrometer (PP) <0.25 tsf Torvane = 2.2 kg/cm^2
-43.8	3.0					
-44.1	3.3		Silty Sand; gray; medium grained; poorly graded; w/trace mica.			No sample
			Organic Silty Clay; gray; soft to very soft; moist; low plasticity; w/trace fine sand occurring in laminations.			Thumb penetrates sample several inches with moderate effort SFM-1-95-C,G-3.3 Headspace = 720 ppm Pocket Penetrometer (PP) = 0.5 tsf Torvane ~ 4 kg/cm^2
-46.3	5.5					
-46.5	5.7		Silty Sand lens; fine to coarse grained.			
-47.2	6.4		Mostly Silty Sand; gray; very fine to fine grained; w/ <4 inch thick lenses of Organic Silty Clay, as above; w/ trace mica; w/ occasional black laminations of leaves.			One piece of flat rounded coarse gravel at 6.4 Silt ~25% by settling volume. No easily seen break between very fine sand and silt when settling out. SFM-1-95-C,G-6.4 Headspace = 340 ppm

(continued)

Hole No.SFM-1-95

DRILLING LOG (Cont. Sheet)

ELEVATION TOP OF HOLE -40.8 Ft.

PROJECT: Berthing Area Vibracore Sampling

INSTALLATION: PHILADELPHIA DISTRICT

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-49.8	9.0					9.84 feet recovery
-50.6	9.8					End of Boring at 10 feet Northing & Easting in Delaware State Plane (NAD '83) Coordinates

Hole No.SFM-2-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 711841.74 E, 680743.02 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): SFM-2-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 10.1 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker C 10)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES
15. WATER DEPTH: 47.4 ft.
16. DATE HOLE STARTED: 5/3/95 COMPLETED: 5/3/95
17. ELEVATION TOP OF HOLE: -46.0 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 9.84 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH — S M Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-46.0	.0					
			Sand: gray; fine to medium grained; poorly graded; wet; w/ some silt.			Silt ~30% by settling volume, no easily seen break between sand and silt. Equivalent to the lower section of SFM-1-95, but with more sand.
-46.7	.7		0.3' transition to			
			Organic Silt: dark gray; very soft; w/some clay; trace mica.			
-47.1	1.1					
-47.4	1.4		Sand; gray; as sand above; some coarse sand in top 0.1'.			SFM-2-95-C,G-0 Hydrocarbonlike odor Headspace = 920 ppm
			0.3' transition to Predominantly Silt; dark gray; as silt above.			
-48.4	2.4		Alternating <0.5'lenses of Sandy Silt and Silty Sand, with some Clay and Organic laminations, generally <1/2 inch thick.			Occasional black laminations of leaves below 4'; <1/2 inch thick.
			Sticky (some clay ~4.5')			SFM-2-95-C,G-5
-51.6	5.6					
-52.0	6.0		Sand: gray; very fine to fine grained; w/some silt.			
			Alternating Silty Sand and Sandy Silt, as above			Silt ~30% by settling volume. No easily seen break between very fine sand and silt when settling out.
-53.0	7.0					
-53.2	7.2		Sand; gray; very fine to fine grained; w/some silt.			
			Alternating Silty Sand and Sandy Silt, as above			
-53.8	7.8					
-54.0	8.0		Sand; gray; very fine to fine grained; w/some silt.			
			Alternating Silty Sand and Sandy Silt, as above			
						(continued)

Hole No.SFM-2-95

DRILLING LOG (Cont. Sheet)

ELEVATION TOP OF HOLE -46.0 Ft.

SHEET 2 OF 2

PROJECT: Berthing Area Vibracore Sampling

INSTALLATION: PHILADELPHIA DISTRICT

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-55.0	9.0					
-55.7	9.7					One attempt 10.15 feet recovery
-56.2	10.1					End of Boring at 10.15 feet Northing & Easting in Delaware State Plane (NAD '83) Coordinates

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PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: SFM-2-95

Hole No.SHI-1-95

DRILLING LOG | DIVISION NAD | INSTALLATION PHILADELPHIA DISTRICT | SHEET 1 OF 2

1. PROJECT: Berthing Area Vibracore Sampling	10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
2. LOCATION (Coordinates or Station): 708673.07 E, 678661.76 N	11. DATUM FOR ELEVATION SHOWN (MLW or MSL): Corps MLw (tied to C&GS marker C 10)
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.	12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
4. HOLE NO. (As shown on drawing title and file number): SHI-1-95	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 1 undisturbed: 0
5. NAME OF DRILLER: Chris Moore	14. TOTAL NUMBER OF CORE BOXES
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED	15. WATER DEPTH: 44 ft.
7. THICKNESS OF OVERBURDEN	16. DATE HOLE STARTED: 5/3/95 COMPLETED: 5/3/95
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -41.3 Ft.
9. TOTAL DEPTH OF HOLE: 10 Ft.	18. TOTAL CORE RECOVERY FOR BORING: 9.16 Ft.
	19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SMCook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-41.3	.0					
			Organic Silty Clay: dark green-gray; very soft; low to nonplastic; wet; sticky; w/trace very fine - medium sand; trace organic material; organic odor.			SHI-1-95-C-0 OVA background = 7.6 ppm Headspace = >1000 ppm puddinglike consistency SHI-1-95-G-0 collected from 2 to 4.6 feet. PP <0.25 tsf
-45.9	4.6		Sand: gray; medium grained; subangular; poorly graded; trace silt;			SHI-1-95-C,G-4.6 Headspace = 22 ppm <5% silt by settling volume; brown.
-48.0	6.7		Coarsens in base 1 foot As above, with trace to some coarse sand, trace coarse gravel.			
			Organic Clayey Silt: dark gray; soft; moist; no odor; w/some-trace very fine to medium sand in laminations <1/2" apart			SHI-1-95-C,G-6.7 Headspace = 460 ppm PP = 0.6 tsf Torvane avg. 2.0 kg/cm^2 Torvane taken on a vertical surface.
						(continued)

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PROJECT: Berthing Area Vibracore Sampling | HOLE NUMBER: SHI-1-95

Hole No.SHI-1-95

DRILLING LOG (Cont. Sheet)

ELEVATION TOP OF HOLE -41.3 Ft.

SHEET 2 OF 2

PROJECT Berthing Area Vibracore Sampling

INSTALLATION PHILADELPHIA DISTRICT

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (if significant)
-50.3	9.0					
-50.5	9.2					One sample attempt. 9.16 feet recovery End of Boring at 10 feet. Northing & Easting in Delaware State Plane (NAD '83) Coordinates

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PROJECT Berthing Area Vibracore Sampling

HOLE NUMBER SHI-1-95

Hole No.SHI-2-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 705229.68 E, 676464.60 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): SHI-2-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 10 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker C 10)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 2 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES:
15. WATER DEPTH: 42.2
16. DATE HOLE: STARTED 5/3/95 COMPLETED 5/3/95
17. ELEVATION TOP OF HOLE: -40.5 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 8.2 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SMCook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-40.5	.0					
			Organic Silty Clay; dark green-gray; very soft; low to nonplastic; wet; sticky; w/trace very fine - medium sand; trace organic material; organic odor.			SHI-2-95-C,G-0 Geotechnical sample taken from ~0.3'depth. puddinglike consistency Headspace = >1000 ppm Northing & Easting in Delaware State Plane (NAD '83) Coordinates Coordinates above are for the 2nd run.
-45.6	5.1					
			Sand; gray; medium grained; subangular; poorly graded; w/trace silt in lumps.			<5% silt by settling volume; brown. SHI-2-95-C,G-5.1 Headspace = 22 ppm 2 inch long piece of wood in sand at 6.6'.
-48.3	7.8					
-48.7	8.2		Organic Clayey Silt; dark gray; soft; moist; no odor; w/some-trace very fine to medium sand in laminations <1/2" apart			SHI-2-95-C,G-7.8 Headspace = 12 ppm VOA only chemical sample taken due to 0.4 ft. recovery of this strata.
						End of Boring at 10 feet. Two sample attempts. 8.2 feet recovery on 2nd attempt

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PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: SHI-2-95

Hole No.SMH-1-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 655862.92 E, 658031.15 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): SMH-1-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 2.6 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker H 10)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 3 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES:
15. WATER DEPTH: 43.8 ft.
16. DATE HOLE STARTED: 5/2/95 COMPLETED: 5/3/95
17. ELEVATION TOP OF HOLE: -40.0 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 2.58 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SM Cook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-40.0	.0					
			Sandy Silt: gray-brown; semiliquid; sand is very fine to fine; w/trace medium to coarse sand.			SMH-1-95-C,G-0 Headspace = 10 ppm Headspace background = 6.4 ppm
-41.4	1.4		Gravel: gray; very dense; mostly coarse sized; rounded; w/sandy silt (as above) binder.			SMH-1-95-C,G-1.4 Headspace = 9 ppm 15-20% silt by settling volume. One 5.5 inch maximum axis piece broken off of a larger cobble.
-42.6	2.6					End of Boring at 2.6 feet. Three sample attempts. First and third had no recovery. Second attempt had 2.58 feet recovery, Vibracore penetrometer showed ten feet penetration, eight feet pullout. 2.58 feet recovery. Northing & Easting in Delaware State Plane (NAD '83) Coordinates Coordinates and depths listed above are based on the second sampling attempt

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PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: SMH-1-95

Hole No.SMH-2-95

DRILLING LOG

DIVISION: NAD

INSTALLATION: PHILADELPHIA DISTRICT

SHEET 1 OF 1

1. PROJECT: Berthing Area Vibracore Sampling
2. LOCATION (Coordinates or Station): 654627.98 E, 657048.40 N
3. DRILLING AGENCY: Alpine Ocean Seismic Survey, Inc.
4. HOLE NO. (As shown on drawing title and file number): SMH-2-95
5. NAME OF DRILLER: Chris Moore
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 2.5 Ft.
10. SIZE AND TYPE OF BIT: 3.5" ID/4.5" OD cutterhead
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): Corps MLW (tied to C&GS marker H 10)
12. MANUFACTURER'S DESIGNATION OF DRILL: 271 B Alpine Pneumatic Vibracore
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: disturbed: 2 undisturbed: 0
14. TOTAL NUMBER OF CORE BOXES:
15. WATER DEPTH: 43.5 ft.
16. DATE HOLE STARTED: 5/2/95 COMPLETED: 5/2/95
17. ELEVATION TOP OF HOLE: -42.5 Ft.
18. TOTAL CORE RECOVERY FOR BORING: 2.5 Ft.
19. SIGNATURE OF INSPECTOR: S.M. Cook, BLACK & VEATCH SMCook

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	BOX NUMBER	REMARKS (If significant)
-42.5	.0					
			First run: Gravelly Silty Sand: gray; very fine to fine grained; very dense. Second Run: Sand: gray (darker below 1.4); very dense; poorly graded; w/trace silt; some gravel (more at top).			SMH-2-95-C,G-0-R1 Recovery 1.67 feet. 2.5" piece of concrete, several pieces (max. 4") of broken slate. Headspace = 16 ppm Headspace background = 6.4 ppm SMH-2-95-C,G-0-R2 Recovery 2.5 feet. Silt ~10% by settling volume. Headspace = 9 ppm
-45.0	2.5					End of Boring at 2.5 feet (run 1). Two sample attempts; 2.5 feet depth maximum recovery. Northing & Easting in Delaware State Plane (NAD '83) Coordinates Coords listed above are for the second run. First run coordinates are 657044.26N, 654643.72E.

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PROJECT: Berthing Area Vibracore Sampling

HOLE NUMBER: SMH-2-95

Appendix B
Position Precision Calibration Report

Position Accuracy Calibration Procedure Report.

This is to certify that

On Friday, 28 April 1995, Alpine's Trimble 4000 DGPS System utilizing the US Coast Guard differential signal was checked for accuracy on two points on the Passaic River, in North Jersey, that were established for Alpine by GEOD Corporation. The points used were TR-230 - Pk nail X=2140622.97, Y=693377.94 and TR-235 Pk nail X=2139379.5, Y=698330.93. The equipment was setup on the two points and positions read for 15 minutes on each. All of the readings taken were within 15 feet of the computed coordinates.

Paul J. Emilius, Jr
N.J. License No. 37186

1.0 INTRODUCTION

Black & Veatch Waste Science, Inc. contracted Alpine Ocean Seismic Survey, Inc. to obtain sixteen (16) ten (10) foot core samples at eight berthing locations along the Delaware river. The sixteen (16) cores were collected during the field work period of April 30th to May 3rd, 1995.

1.1 Description of Standard Operations

Cores were taken using the following procedure:

1) Coring vessel (Alpine's R/V "Atlantic Twin) was accurately positioned on target core location using DGPS.
2) Core samples were taken with an Alpine Pneumatic Vibracore. Penetration of the coring pipe was determined with a penetrometer which recorded depth of penetration versus time. Target penetration was ten (10) feet with at least eighty percent (80%) recovery. If less than eight (8) feet of penetration was achieved (refusal was considered less than one (1) foot of penetration over a five (5) minute period) the sample in the coring pipe was removed, a new liner was inserted, and the rig was jetted down to the depth where the refusal was previously met. The jet pump was then shut off and the vibrator head was activated. Retries were conducted until penetration reached at least 8 feet , or until two retries were attempted.
3) Once the core liners (filled with soil sample) were removed they were cut to five foot sections and placed in a refrigerator at a temperature of 40° to insure that the sample remained properly conserved for lab testing.
4) At each location water depths were recorded using a digital echosounder
5) Tide staff readings were taken at three separate locations during operations in order to correct water depths to MLW (see Section 2.5 for further details).
6) In addition, two hundred (200) gallons of water were sampled for lab testing off of Pier 9 in Philadelphia (see Section 2.6 for further details).

1.2 Summary of Events

DATE	TIME	EVENT
4/30/95	0800	R/V Atlantic Twin departs Pier 9
	0840	On location Core BST-1
	0845-0850	Vibrating Coring Rig
	0853	Core on board - Sample rejected
	0952	Taking Core BST-1 Run 2
	1001	Stop Vibrating
	1015	Core BST-1 Complete

DATE	TIME	EVENT
4/30/95	1130	On location PAT-4
	1142-1152	Vibrating Coring Rig
	1204	Core PAT-4 Complete
	1310	Vessel returns to Pier 9, Black & Veatch representatives taking water sample for the rest of the day
5/1/95	0720	Vessel underway to PAT-3
	0800	On location PAT-3
	0816-0831	Vibrating Coring Rig
	0837	Core on board
	0845	Rigging for Jetting operations
	1050	Core PAT-3, Run 2
	1115-1122	Vibrating Core PAT-3, Run 2
	1132	Core PAT-3 Complete
	1145	On location PAT-2
	1208-1215	Vibrating Coring Rig
	1233	Core PAT-2 Complete
	1314	On location CRC-1
	1320-1323	Vibrating Coring Rig
	1334	Core CRC-1 Complete
	1345	On location CRC-2
	1349-1351	Vibrating Coring Rig
	1351	Recovered 5', preparing to jet
	1540	Jetting to 6'
	1544-1548	Vibrating Coring Rig
	1555	Core CRC-2 Complete
	1610	On Location PAT-1
	1616-1621	Vibrating Coring Rig
	1628	Core PAT-1 Complete
	1700	Arrive at Pier 9
5/2/95	0740	Vessel underway to SMH-2
	0945	On location SMH-2
	1000-1010	VibratingCoring Rig - Rig hit very hard bottom
	1025	Second attempt at SMH-2 - Hit hard bottom again at 2'6", decision made to abandon location
	1120	En route to BP area
	1137	Waiting off locaton for vessel at pier to cast-off
	1209	Cut penetrometer cable, repairing cable
	1315	On location BPO-1
	1322-1325	Vibrating Coring Rig
	1325	Hoses caught in screw and damaged
	1430	Hoses repaired

DATE	TIME	EVENT
5/2/95	1451-1502	Second attempt at BPO-1 - Recovered only 4'. Rigging for third attempt
	1550-1558	Vibrating Coring Rig
	1607	Core BPO-1 Complete
	1620	On location BPO-2
	1629-1634	Vibrating Coring Rig
	1642	Core BPO-2 Complete
	1710	On Location SMH-1
	1714-1719	Vibrating Coring Rig
	1728	Core pipe empty - no recovery
	1737	Reposition for second attempt
	1743-1748	Vibrating Coring Rig
	1755	Core on board, only recovered 2'6" - Heading for Sun Oil Dock
	1810	Secured at Sun Oil Dock
5/3/95	0700	En Route to Core site SMH-1
	0715	On location SMH-1
	0720- 0726	Vibrating Coring Rig - Hit hard rock (no recovery)
	0740	En Route to location SHI-1
	0910	On location SHI-1
	0912-0915	Vibrating Coring Rig
	0920	Core SHI-1 Complete
	0930	On location SHI-2
	0935	Coring Rig Not Vibrating
	1000	Repairs performed to pressure hose
	1045	Reposition on to Core location SHI-2
	1057-1058	Vibrating Coring Rig
	1105	Core SHI-2 Complete
	1120	On location SFM-1
	1129-1130	Vibrating Coring Rig
	1140	Core SFM-1 Complete
	1148	On location SFM-2
	1150-1152	Vibrating Coring Rig
	1203	Core SFM-2 Complete
	1300	On location BST-2
	1310-1316	Vibrating Coring Rig
	1326	Core BST-2 Complete - Vessel returning to Pier 9
		Job Complete

2.0 EQUIPMENT

2.1 Survey Vessel

The R/V Atlantic twin, a 90-feet steel catamaran hull research vessel with a 7-feet draft, was used as the platform for the vibracoring operations. The vessel has ample deck space, anchoring system, hydraulic crane, deck winches and A-frame capability for vibracore operations. The navigation equipment, with associated computer, printer and display unit, was mounted in the pilot house. The vessel has sleeping facilities to accommodate crew and vibracore staff during the survey period.

2.2 Positioning System

A Trimble 4000 Differential GPS Navigation System was used throughout this operation. The DGPS system consists of an 8-channel satellite receiver connected to an HF data link receiver which obtains differential correction signals from the United States Coast Guard GPS transmitter at Cape Henelopen, Delaware.

2.3 Navigational data Acquisition and Logging System

The WGS-84 Geographic position obtained by the GPS navigation system were converted into New Jersey Mercator (NAD '83) coordinate positions , using a computer and Sextant navigation software, version 9.44. The system consists of the following components:

1) 486 DX 33Mhz Computer w/3.5" logging disks.

2) Color video monitor (Helmsman Display).

3) Printer.

4) Sextant closure box and software.

2.4 Positioning System Calibration

On Friday April 28, 1995, Alpine performed Position Calibration procedures on the Trimble DGPS system which was to be used aboard the R/V "Atlantic Twin" for positioning during coring operations on the Delaware River. The test utilitized the U.S. Coast Guard differential signal. Once the calibration procedure was successfully completed the navigation system was installed aboard the aforementioned vessel. After installation the system was checked for relative accuracy to the pier. Readings over a ten (10) minute period varied no more that five (5) feet. The positions recorderd were plotted on a 1:200 scale chart of the area and coincided with the actual boat position. The Calibration Certificate is contained in the Appendix to this report.

2.5 Vibracore

A model 271 B Alpine Pneumatic Vibracore configured to take cores 10 feet in length was used on this project. The model 271B is a self-contained, free standing pneumatic vibracore unit. The unit consists of an air-driven vibratory hammer assembly, an aluminum H-beam which acts as the vertical guide for the vibrator, a set of four steel support pads and legs which hold the beam upright on the sea bottom, a steel coring pipe, a cutting edge, a core retainer, a clear PVC core liner and a penetrometer which records time and depth of penetration of the core pipe into the sea bottom. An air hose array provides passage of compressed air from the compressor on deck to drive the vibracore. A jet pump was installed aboard the vessel to provide high pressure water for jetting operations.

2.6 Echosounder

An Innerspace 448 Digital Echosounder obtained water depths at each core site. The echosounder was calibrated at the beginning of operations by the "bar check" method. Water depths were corrected to MLW using tide staffs installed at the following locations:

For cores BST-1, BST-2, PAT-4, PAT-3, PAT-2, PAT-1, CRC-1, CRS-1:
Tide Staff at Pier 9 tied to C&GS Marker "Tidal 23

For cores SMH-1, SMH-2, BPO-1, BPO-2:
Tide Staff at the Sun Oil Terminal at Marcus Hook tied to C&GS Marker "H 10"

For cores SHI-1, SHI-2, SFM-1, SFM-2:
Tide Staff at U.S. Corps of Engineers Fort Mifflin Base tied to C&GS Marker "C 10".

2.7 Water Sampling

As part of the overall project, two hundred (200) gallons of water were pumped from the Delaware River off of Pier 9 in Philadelphia. Pumping from the river was accomplished using a Manostat Varistatic Pump (Model: Simon Variable Speed Peristaltic Pump) with 25 feet of 5/16" diameter hose. The water was sampled from ten (10) feet off the peer by passing the hose along a ten (10) foot pipe extending off the peer. A weight was placed at the end of the hose to insure that it hung straight down from the pipe into the water. The sampled water was placed into containers and stored in coolers to insure that the samples were not degraded before being submitted for laboratory testing.

2.8 Personnel

The following key personnel were aboard the vessel:

Alpine Party Chief:	James Cole
Captain:	Raymond Bernard
Vibracore Operator:	Chris Moore
Black & Veatch Representatives:	Corry Platt
	Sean Cook

Appendix C
Chain-of-Custody Forms

nytest environmental.
(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19104
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDDNCLP
Sampled By: Corry T. Platt Corry T Platt

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Tbl 2	Table 2 compds.	Elutriate Prep	Geotechnical						Comments
	C R C 1 G 3	5/1/95	1332	CRC-1-95-G-3.5	1				X						CAP
		/95	1332	CRC-1-95-C-0.0	3	X	X	X							
															CAP
		5/1/95	1332	CRC-1-95-C-3.5	4	X	X	X							
	S M H 1 C Ø	5/2/95	1748	SMH-1-95-C-0.0	2	X	X	X							Do elutriate if cong
CAP	S M H														
	S M 2 C Ø 1	5/2/95	1008	SMH-2-95-C-0.0-R1	2	X	X	X							Do Elutriate if en
	S M 2 C Ø 2	5/2/95	1036	SMH-2-95-C-0.0-R2	2	X	X	X							Same as ↑
	S M H 1 G Ø	5/2/95	1748	SMH-1-95-G-0.0	1				X						
	S M 2 G Ø 1	5/2/95	1008	SMH-2-95-G-0.0-R1	1				X						

Bin #'s In / Out (For Lab Use Only)

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T. Platt	5/5/95 1545	[signature]	5/5/95 15:40
Print Name: CORRY T. PLATT		Print Name: T. [signature]	
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:		Print Name:	
Relinquished by:	Date / Time	Received by Laboratory:	Date / Time
Print Name:		Print Name:	

Lab Use Only
Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions :

CLIENT RETAINS YELLOW COPY ONLY

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(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Page #: 2 of

Client Name: Block & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDDNCLP
Sampled By: Corey T. Platt Corey T Platt

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Tbl 2	Tbl 2 Compd	Elutriate Prep	Geotechnical	Bin #'s In / Out (For Lab Use Only)	Comments
	SMH1C1	5/2/95	1748	SMH-1-95-C-1.4	2	X	X				Do Elutriate if ne
	SMH1G1	5/2/95	1748	SMH-1-95-G-1.4	1				X		
	SM2G02	5/2/95	1036	SMH-2-95-G-0.0-R2	1				X		
	BPO1C0	5/2/95	1324	BPO-1-95-C-0.0	4	X	X	X			
	BPO1G0	5/2/95	1324	BPO-1-95-G-0.0	1				X		Dup
	BPO1C6	5/2/95	1324	BPO-1-95-C-6.2	3	X	X	X			Do Elutriate if
	BPO1G6	5/2/95	1324	BPO-1-95-G-6.2	1				X		
	BPO2C0	5/2/95	1646	BPO-2-95-C-0.0	3	X	X	X			
	BPO2G0	5/2/95	1646	BPO-2-95-G-0.0	1				X		
	BPO2C4	5/2/95	1646	BPO-2-95-C-4.1	3	X	X	X			

	Date / Time		Date / Time
Relinquished by: Corey T Platt	5/5/95 1540	Received by:	5/5/95 15:40
Print Name: COREY T. PLATT		Print Name:	
Relinquished by:		Received by:	
Print Name:		Print Name:	
Relinquished by:		Received by Laboratory:	
Print Name:		Print Name:	

Special Instructions:

CLIENT RETAINS YELLOW COPY ONLY

Lab Use Only

Custody Seals: Intact Broken Abs
Sample Rec'd in Good Condition? Y N
Sample Temperature: Degrees Celcius
INSPECTED BY:
COMMENTS:

nytest environmental.
(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDDNCLP
Sampled By: Corry T Platt [signature] T Platt

Analysis Requested

Bin #'s In / Out (For Lab Use Only)

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Tbl 2	Tbl 2 cmpds	Elutriate Prep	Geotechnical						Comments
	BPO2G4	5/2/95	1646	BPO-2-95-G-4.1	1				X						
	SHI1C0	5/3/95	0917	SHI-1-95-C-0.0	4	X	X	X							
	SHI1G0	5/3/95	0917	SHI-1-95-G-0.0	1				X						
~~CAP~~	~~SHI2~~														
	SHI1C4	5/3/95	0917	SHI-1-95-C-4.6	3	X	X	X							
	SHI1G4	5/3/95	0917	SHI-1-95-G-4.6	1				X						
	SHI1C6	5/3/95	0917	SHI-1-95-C-6.7	3	X	X	X							
	SHI1G6	5/3/95	0917	SHI-1-95-G-6.7	1				X						
	SHI2C0	5/3/95	1058	SHI-2-95-C-0.0	4	X	X	X							
	SHI2G0	5/3/95	1058	SHI-2-95-G-0.0	1				X						

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T Platt		[signature]	5/5/95 15:40
Print Name: CORRY T. PLATT		Print Name: T. Rymanowski	
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:		Print Name:	
Relinquished by:	Date / Time	Received by Laboratory:	Date / Time
Print Name:		Print Name:	

Lab Use Only
Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition?: Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions:

CLIENT RETAINS YELLOW COPY ONLY

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(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDONCLP
Sampled By: Corry T. Platt Corry T Platt

Analysis Requested

Bin #'s In / Out (For Lab Use Only)

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Table 2	Tbl 2 Cmpds	Elutriate Prep	Geotechnical						Comment
	SHI2C5	5/3/95	1058	SHI-2-95-C-5.1	3	X	X	X							
	SHI2G5	5/3/95	1058	SHI-2-95-G-5.1	1				X						
	SHI2C7	5/3/95	1058	SHI-2-95-C-7.8	1	X									
	SHI2G7	5/3/95	1058	SHI-2-95-G-7.8	1				X						
	SFM1C0	5/3/95	1131	SFM-1-95-C-0.0	2	X	X	X							Do elutriate if
	SFM1G0	5/3/95	1131	SFM-1-95-G-0.0	1				X						
	SFM1C1	5/3/95	1131	SFM-1-95-C-1.0	3	X	X	X							
	SFM1G1	5/3/95	1131	SFM-1-95-G-1.0	1				X						
	SFM1C3	5/3/95	1131	SFM-1-95-C-3.3	3	X	X	X							
	SFM1G3	5/3/95	1131	SFM-1-95-G-3.3	1				X						

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 1105(
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T Platt Print Name: CORRY PLATT	5/5/95 1540	Thomas [signature] Print Name: T. Rymarkowski	5/5/95 15:40
Relinquished by: Print Name:	Date / Time	Received by: Print Name:	Date / Time
Relinquished by: Print Name:	Date / Time	Received by Laboratory : Print Name:	Date / Time

Lab Use Only
Custody Seals: Intact Broken A
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions :

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Chain of Custody Record

Client Name: Black & Veatch Waste Science
Address: 401 Walnut Street, Suite 705, Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 406000.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDDNCLP
Sampled By: Corey T Platt Corey T Platt

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Tbl 2	Tbl 2 compds.	Elutriate Prep.	Geotechnical
	SFM1C6	5/3/95	1131	SFM-1-95-C-6.4	3	X	X	X	
	SFM1G6	5/3/95	1131	SFM-1-95-G-6.4	1				X
	SFM2C0	5/3/95	1152	SFM-2-95-C-0.0	7	X	X	X	
	SFM2G0	5/3/95	1152	SFM-2-95-G-0.0	1				X
	SFM2C5	5/3/95	1152	SFM-2-95-C-5.0	4	X	X	X	
	SFM2G5	5/3/95	1152	SFM-2-95-G-5.0	1				X
	BST2C0	5/3/95	1317	BST-2-95-C-0.0	2	X	X	X	
	BST2G0	5/3/95	1317	BST-2-95-G-0.0	1				X
	BST2C1	5/3/95	1317	BST-2-95-C-0.75	4	X	X	X	
	BST2G1	5/3/95	1317	BST-2-95-G-0.75	1				X

Bin #'s In / Out (For Lab Use Only)

Comments
Do MS/MSD on e
Do Elutriate if e

Login #:
Ship to: Nytest Environmental Inc., 60 Seaview Blvd, Port Washington N.Y. 11050, Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Relinquished by:	Date / Time	Received by:	Date / Time
Corey T. Platt	5/5/95 15:40		
Print Name: COREY T. PLATT		Print Name: T. Raykowski	
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:		Print Name:	
Relinquished by:	Date / Time	Received by Laboratory:	Date / Time
Print Name:		Print Name:	

Lab Use Only
Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition? Y N
Sample Temperature: Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions:

CLIENT RETAINS YELLOW COPY ONLY

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(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

page # : 6

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 3 Deliverables: RLDDNCLP
Sampled By: Corry T Platt Corry T Platt

Analysis Requested

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 1105
Attn.: Sample Control
Date Shipped:
Carrier: Courie
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA - Water	Bin #'s In / Out (For Lab Use Only)	Comment
	T B 5 0 4 A	5/4/95	1500	Trip Blank 5/4/95-PM	2	X		

Corry T Platt

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T Platt	5/5/95 1540	[signature]	5/5/95 15:40
Print Name: CORRY T. PLATT		Print Name: T. Rymanowski	
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:		Print Name:	
Relinquished by:	Date / Time	Received by Laboratory:	Date / Time
Print Name:		Print Name:	

Lab Use Only
Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions :

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(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Page # : 1 of

Client Name	Black & Veatch Waste Science
Address	601 Walnut Street Suite 705 Philadelphia, PA 19106-3307
Project Manager	John Taylor
Phone	215-928-0700 FAX 215-928-1780
Project Name	Vibracore Sampling
Project Number	40000.001
P.O. #	
Analytical Protocol	Table 2 Deliverables RLDDNCLP
Sampled By	Corky Platt

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Table 2	Table 2 Compounds	Elutriate Exp.	Geotechnical	VOA (Water)
	PAT4C0	11/30/95	1154	PAT-4-95-C-0.0	3	X	X	X		
	PAT4G0	11/29/95	1154	PAT-4-95-G-0.0	1				X	
	PAT4C5	11/30/95	1154	PAT-4-95-C-5.0	5	X	X	X		
	PAT4G5	11/29/95	1154	PAT-4-95-G-5.0	1				X	
	TBQ502	5/2/95	0758	Trip Blank 5/2/95	2					X

Bin #'s In / Out (For Lab Use Only)

Comments

Login #:

Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control

Date Shipped:

Carrier: Courier

Air Bill #:

Cooler #:

C of C #:

SDG #:

NEI QT #:

	Date / Time
Relinquished by: Corky T Platt Print Name: Corky T. Platt	5/2/95 2000
Relinquished by: Scott C. Radley Jr. Print Name: Scott C. Radley Jr.	5/3/95 12:15
Relinquished by: Print Name:	

	Date / Time
Received by: Scott C. Radley Jr. Print Name: Scott C. Radley Jr.	5/2/95 2000
Received by: D. Taylor Print Name: Jay Taylor	5/3/95 12:15
Received by Laboratory: Print Name:	

Lab Use Only

Custody Seals: Intact Broken Abs

Sample Rec'd in Good Condition? : Y N

Sample Temperature: _____ Degrees Celcius

INSPECTED BY:

COMMENTS:

Special Instructions :

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nytest environmental.
(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Page # : 1 of

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDDNCLP
Sampled By: Corry T. Platt Corry T. Platt

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Analysis Requested

Bin #'s In / Out (For Lab Use Only)

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Table 2	Table 2 Compd.	Elutriate Prep.	Geotechnical						Comments
	PAT3C0	5/1/95	0832	PAT-3-95-C-0.0	6	x	x	x							Use excess for MS/
	PAT3G0	5/1/95	0832	PAT-3-95-G-0.0	1				x						
	PAT3C5	5/1/95	0832	PAT-3-95-C-5.5	3	x	x	x							
	PAT3G5	5/1/95	0832	PAT-3-95-G-5.5	1				x						
	PAT3C6	5/1/95	0832	PAT-3-95-C-6.25	3	x	x	x							
	PAT3G6	5/1/95	0832	PAT-3-95-G-6.25	1				x						
	PAT2C0	5/1/95	1218	PAT-2-95-C-0.0	3	x	x	x							
	PAT2G0	5/1/95	1218	PAT-2-95-G-0.0	1				x						
	PAT2CD	5/1/95	1218	PAT-2-95-C-0.0-D	3	x	x	x							
	PAT2C6	5/1/95	1218	PAT-2-95-C-6.8	2	x	x	x							

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T. Platt Print Name: Corry T. PLATT	5/4/95 1436	Thomas Zymanowski Print Name: T. Zymanowski	5/4/95 14:36
Relinquished by: Print Name:	Date / Time	Received by: Print Name:	Date / Time
Relinquished by: Print Name:	Date / Time	Received by Laboratory: Print Name:	Date / Time

Lab Use Only

Custody Seals: Intact Broken Abs
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions :

CLIENT RETAINS YELLOW COPY ONLY

nytest environmental.
(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Black & Veatch Whale Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDD NCLP
Sampled By: Corry T. Platt

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Tbl 2	Tbl 2 Cmpds.	Elutriate Prep.	Geotechnical						Comments
	PAT2G6	5/1/95	1218	PAT-2-95-G-6.8	1				X						
	PAT2C7	5/1/95	1218	PAT-2-95-C-7.6	2	X	X	X							
	PAT2C7	5/1/95	1218	PAT-2-95-G-7.6	1				X						
	PAT1C0	5/1/95	1620	PAT-1-95-C-0.0	3										
	PAT1G0	5/1/95	1620	PAT-1-95-G-0.0	1				X						
	PAT1C2	5/1/95	1620	PAT-1-95-C-2.3	4										
	PAT1G2	5/1/95	1620	PAT-1-95-G-2.3	1				X						
	~~CRC1C0~~	~~5/1/95~~	~~1332~~	~~CRC-1-95-C-0.0~~											
	CRC1G0	5/1/95	1332	CRC-1-95-G-0.0	1				X						
	CRC1G3	5/1/95	1332	CRC-1-95-G-3.5	1				X						

Bin #'s In / Out (For Lab Use Only)

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T. Platt	5/4/95 1436	Thomas Rymanowski	5/4/95 14:36
Print Name: CORRY T. PLATT		Print Name: T. Rymanowski	
Relinquished by:	Date / Time	Received by:	Date / Time
Print Name:		Print Name:	
Relinquished by:	Date / Time	Received by Laboratory:	Date / Time
Print Name:		Print Name:	

Lab Use Only
Custody Seals: Intact Broken Abs
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions :

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nytest environmental.
(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street Suite 705
Philadelphia PA 19106-3307

Project Manager: John Taylor
Phone: 215 928 0700 FAX: 215 928 1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDDNCLP
Sampled By: Corry T. Platt Corry T Platt

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 1105[illegible]
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #: N/A
Cooler #:
C of C #:
SDG #:
NEI QT #:

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Table 2	Table 2 compounds	Elutriate Prep.	Geotechnical						Comment
	~~C R C 2 0 0~~	~~5/1/95~~		~~CRC-2-95-C-0.0~~											
	C R C 2 C 0	5/1/95	1351	CRC-2-95-C-0.0	4	X	X	X							HOLD
	C R C 2 G 0	5/1/95	1351	CRC-2-95-G-0.0	1				X						
	C R C 2 C 4	5/1/95	1351	CRC-2-95-C-4.5	4	X	X	X							HOLD
	C R C 2 G 4	5/1/95	1351	CRC-2-95-G-4.5	1				X						
	C R C 2 C 7	5/1/95	1351	CRC-2-95-C-7.4	3	X	X	X							HOLD
	B S T 1 C 2	4/30/95	0851	BST-1-95-C-2.0	2	X	X								HOLD
	B S T 1 G 2	4/30/95	0851	BST-1-95-G-2.0	1				X						
	B S T 1 C 3	4/30/95	0851	BST-1-95-C-3.0	3	X	X	X							HOLD
	B S T 1 C 3	4/30/95	0851	BST-1-95-G-3.0	1				X						

Bin #'s In / Out (For Lab Use Only)

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T Platt Print Name: CORRY PLATT	5/1/95 2045	Scott C Radley Jr. Print Name: SCOTT C RADLEY JR.	5/1/95 2057
Scott C Radley Jr. Print Name: SCOTT C RADLEY JR	5/3/95 12:15	J. Torpfart Print Name: J. TORPFART	5/3/95 12:15
Relinquished by: Print Name:	Date / Time	Received by Laboratory: Print Name:	Date / Time

Lab Use Only

Custody Seals: Intact Broken Al
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions: All samples with HOLD written in comments column do not analyze or use to prepare elutriate tests. According to laboratory [illegible] sufficient volume was

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— continued on p. 2

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(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Client Name: Black & Veatch Waste Science
Address: 401 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: Lora Taylor
Phone: 215-928-0700 FAX: 215-928-1790
Project Name: Vibracore Sampling
Project Number: 40600 0021
P.O. #:
Analytical Protocol: Table 2 Deliverables: RLDDAICLP
Sampled By: Corey T Platt Corey T Platt

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Table 2	Table 2 Compd.	Elutriate Prep.	Geotechnical	VOA-Water
	BSTIC5	4/30/15	0851	BST-1-95-C-5.75	5	X	X	X		
	BSTIG5	4/30/15	0851	BST-1-95-G-5.75	1				X	
	TB0501	5/1/15	1324	TripBlank	2					X

Bin #'s In / Out (For Lab Use Only)

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #: N/A
Cooler #: N/A
C of C #: N/A
SDG #: N/A
NEI QT #:

Comments: HOLD Chrom

Relinquished by:	Date / Time	Received by:	Date / Time
Corey T Platt	5/1/15 2045		
Print Name: Corey T Platt		Print Name: Scott C. Ridley III	5/1/15 2057
Relinquished by: Scott C Ridley III	5/3/15 1215	Received by:	
Print Name: Scott C Ridley III		Print Name: Jay Teufert	5/3/15 1215
Relinquished by:		Received by Laboratory:	
Print Name:	Date / Time	Print Name:	Date / Time

Special Instructions: collected Black & Veatch or US Army personnel will call laboratory to indicate which analytes to analyze for

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Lab Use Only

Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition?: Y N
Sample Temperature: Degrees Celcius
INSPECTED BY:
COMMENTS:

nytest environmental.
(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Page # : 1 of

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 3 Deliverables: RLDDNCLP
Sampled By: Corey T. Platt Corey T. Platt

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Table 3	Formaldehyde per Tbl 3	BNA per Tbl 3	Pest/PCB per Tbl 3	Herbicides per Tbl 3	Total Metals per Tbl 3	Cyanide per Tbl 3	Cl, Res Cl per Tbl 3	Comments
	RB0504	5/4/95	1020	Rinse Blank	13	x	x	x	x	x	x	x	x	
	TB0504	5/4/95	1015	Trip Blank 5/4/95	2	x								
	TB0424	4/24/95	?	Lab Provided Trip Blank	2	x								

Bin #'s In / Out (For Lab Use Only)

Corey T. Platt

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #:
Cooler #:
C of C #:
SDG #:
NEI QT #:

Relinquished by:	Date / Time	Received by:	Date / Time
Corey T. Platt Print Name: Corey T. Platt	5/4/95 14:36	Thomas Dymanowski Print Name: T. Dymanowski	5/4/95 14:36
Relinquished by: Print Name:	Date / Time	Received by: Print Name:	Date / Time
Relinquished by: Print Name:	Date / Time	Received by Laboratory : Print Name:	Date / Time

Lab Use Only
Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions :

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Chain of Custody Record

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street
Suite 705
Philadelphia, PA 19106-3307
Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 3 Deliverables: RLDDNCLP
Sampled By: Corry T. Platt Corry T Platt

Analysis Requested

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped:
Carrier: Courier
Air Bill #: N/A
Cooler #: N/A
C of C #: N/A
SDG #: N/A
NEI QT #:

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	Elutriate Prep
	ELUT01	4/30/95	1351	Elutriate Prep	7	X
	ELUT02	4/30/95	1351	Elutriate Prep	20	X

Bin #'s In / Out (For Lab Use Only)

Comments

5 coolers provid[illegible] lab were too s[illegible] to contain ca[illegible] These coolers [illegible] not close prop[illegible] and temperature [illegible] not be 4°C [illegible] these last [illegible] they may not [illegible] to be analyz[illegible] only 35 sedim[illegible] samples are [illegible] Corry T Platt

Corry T Platt 4/30/95

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T Platt Print Name: CORRY T. Platt	5/1/95 0100	Scott C Radley Jr. Print Name: SCOTT C. RADLEY JR.	5/1/95 0100
Scott C Radley Jr. Print Name: SCOTT C. RADLEY JR.	5/1/95 1108	J. Taylor Print Name: J. Taylor	5/1/95 11:08
Relinquished by: Print Name:	Date / Time	Received by Laboratory: Print Name:	Date / Time

Lab Use Only
Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions: Use elutriate prep water as needed to conduct Testing. The elutriate water was not individually labelled but were separated into two sample ID entries as per lab contact. Use sediment sample ID to label elutriate analysis. sample IDs. Corry T. Platt 4/30/95

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Chain of Custody Record

Page #: 1 of

Client Name	Black & Veatch Whole Science
Address	601 Walnut Street Suite 705
	Philadelphia PA 19106-3307
Project Manager	John Taylor
Phone	215 928 0700 FAX 215 928 1780
Project Name	Vibracore Sampling
Project Number	40600.001
P.O. #	
Analytical Protocol	Table 3 Deliverables RLDDNCLP
Sampled By	Corey T. Platt Corey T. Platt

Analysis Requested

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	VOA per Table 3	Formaldehyde	BNA per Table 3	Pest/PCB per Tbl 3	Herbicides per Tbl 3	Total Metals per Tbl 3	Cyanide per Tbl 3	Cl, Res Cl per Tbl 3
	RIVH20	4/30/95	1557	River Water	17	X	X	X	X	X	X	X	X
	TB0430	4/30/95	1530	Trip Blank 4/30/95	2	X							

Bin #'s In / Out (For Lab Use Only)

Comments

Login #:

Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control

Date Shipped: 4/30/95
Carrier: Courier
Air Bill #: N/A
Cooler #: N/A
C of C #: N/A
SDG #: N/A
NEI QT #: N/A

	Date / Time		Date / Time
Relinquished by: Corey T. Platt	4/30 1630	Received by: J. Taylor	4/30/95 1715
Print Name: Corey T. Platt		Print Name: J. Taylor	
Relinquished by:		Received by:	
Print Name:		Print Name:	
Relinquished by:		Received by Laboratory:	
Print Name:		Print Name:	

Lab Use Only

Custody Seals: Intact Broken Abs
Sample Rec'd in Good Condition? : Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY: _____
COMMENTS: _____

Special Instructions : _____

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(516) 625-5500 FAX: (516) 625-1274

Chain of Custody Record

Page #: 1 of

Client Name: Black & Veatch Waste Science
Address: 601 Walnut Street Suite 705
Philadelphia, PA 19106-3307

Project Manager: John Taylor
Phone: 215-928-0700 FAX: 215-928-1780
Project Name: Vibracore Sampling
Project Number: 40600.001
P.O. #:
Analytical Protocol: Table 3 Deliverables: RLDDNCLP
Sampled By: Corry T. Platt Corry T Platt

Analysis Requested

No. of Containers: Elutriate Prep.

Bin #'s In / Out (For Lab Use Only)

Login #:
Ship to:
Nytest Environmental Inc.
60 Seaview Blvd
Port Washington N.Y. 1105
Attn.: Sample Control
Date Shipped: 4/30
Carrier: Courie
Air Bill #: N/A
Cooler #: N/A
C of C #: N/A
SDG #: N/A
NEI QT #:

Lab ID (Lab Use Only)	Sample ID (Maximum of 6 Characters)	Date Sampled	Time Sampled	Sample Location	No. of Containers	Elutriate Prep.	Comment
	E L U T 0 1	4/30/95	1351	Elutriate Prep	13	X	
	~~E L U T 0 2~~	~~4/30/95~~	~~CP~~	~~Elutriate Prep CP~~	~~20~~	~~X~~	~~CP~~

Corry T. Platt

Relinquished by:	Date / Time	Received by:	Date / Time
Corry T. Platt Print Name: CORRY PLATT	4/30/95 1630	J. Taylor Print Name: JAY TAYLOR	4/30/95 4:25
Relinquished by: Print Name:	Date / Time	Received by: Print Name:	Date / Time
Relinquished by: Print Name:	Date / Time	Received by Laboratory: Print Name:	Date / Time

Lab Use Only
Custody Seals: Intact Broken Ab
Sample Rec'd in Good Condition?: Y N
Sample Temperature: _____ Degrees Celcius
INSPECTED BY:
COMMENTS:

Special Instructions:

CLIENT RETAINS YELLOW COPY ONLY

Appendix D
Results of Bulk Sediment Analyses, Results of Elutriate and River Water Analyses, and Blank Analytical Results

Sample ID: BPO-1-95-C-0.0 Lab ID: BPO1C0 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			21U		100,000
Acrolein			210U		NA
Acrylonitrile			210U		1,000
Benzene			21U		1,000
Bromodichloromethane			21U		1,000
Bromoform			21U		1,000
Bromomethane			21U		1,000
2-Butanone (MEK)			21U		50,000
Carbon Tetrachloride			21U		1,000
2-Chloroethylvinylether			21U		NA
Chlorobenzene			21U		1,000
Chloroethane			21U		NA
Chloroform			21U		1,000
Chloromethane			21U		10,000
1,2-Dichloropropane			21U		10,000
1,1-Dichloroethane			21U		10,000
1,2-Dichloroethane			21U		1,000
1,1-Dichloroethene			21U		8,000
Dibromochloromethane			21U		1,000
1,2-trans Dichloroethylene			21U		50,000
1,2-cis Dichloroethene			21U		1,000
cis-1,3-Dichloropropene			21U		1,000
trans-1,3-Dichloropropene			21U		1,000
Ethylbenzene			21U		100,000
2-Hexanone			21U		NA
4-Methyl-2-Pentanone (MIBK)			21U		50,000
Methylene Chloride			21U	11 J	1,000
Styrene			21U		23,000
Tetrachloroethylene			21U		1,000
1,1,2,2-Tetrachloroethane			21U		1,000
Toluene			21U		500,000
1,1,1-Trichloroethane			21U		50,000
1,1,2-Trichloroethane			21U		1,000
Trichloroethene (TCE)			21U		1,000
Vinyl Chloride			21U		2,000
Xylenes (Total)			21U		10,000
1,1,1,2-Tetrachloroethane			21U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			710U		50,000
bis(2-chloroethyl)ether			710U		660
2-Chlorophenol			710U		10,000
1,3-Dichlorobenzene			710U		100,000
1,4-Dichlorobenzene			710U		100,000
1,2-Dichlorobenzene			710U		50,000
2-Methylphenol			710U		2,800,000
bis(2-chloroisopropyl)ether			710U		10,000
4-Methylphenol			710U	80 J	2,800,000
N-Nitroso-di-n-propylamine			710U		660
Hexachloroethane			710U		6,000
Nitrobenzene			710U		10,000
Isophorone			710U		50,000
2-Nitrophenol			710U		NA
2,4-Dimethylphenol			710U		NA
2,4-Dichlorophenol			710U		10,000
1,2,4-Trichlorobenzene			710U		68,000
Naphthalene			710U		100,000
4-Chloroaniline			710U		230,000
Hexachlorobutadiene			710U		1,000
bis(2-Chloroethoxy)methane			710U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			710U		100,000
Hexachlorocyclopentadiene			710U		100,000
2,4,6-Trichlorophenol			710U		10,000
2,4,5-Trichlorophenol			3500U		50,000
2-Chloronaphthalene			710U		NA
Dimethyl phthalate			710U		50,000
Acenaphthylene			710U		44
2,6-Dinitrotoluene			710U		1,000
Acenaphthene			710U		16
2,4-Dinitrophenol			3500U		10,000
4-Nitrophenol			3500U		NA
2,4-Dinitrotoluene			710U		1,000
Diethylphthalate			710U		50,000
4-Chlorophenyl-phenylether			710U		NA
Fluorene			710U		18
4,6-Dinitro-2-methylphenol			3500U		NA
N-Nitrosodiphenylamine			710U		100,000
4-Bromophenyl-phenylether			710U		NA
Hexachlorobenzene			710U		660
Pentachlorophenol			3500U		6,000
Phenanthrene			710U	150 J	NA
Anthracene			710U		85
Di-n-butylphthalate			710U	160 J	100,000
Fluoranthene			710U	230 J	380
Pyrene			710U	260 J	290
Butylbenzylphthalate			710U		100,000
3,3'-Dichlorobenzidine			1400U		2,000
Benzo(a)anthracene			710U	120 J	160
Chrysene			710U	180 J	220
Bis(2-Ethylhexyl)phthalate			710U	1300	49,000
Di-n-octylphthalate			710U		100,000

Sample ID: BPO-1-95-C-0.0 Lab ID: BPO1C0 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			710U	140 J	900
Benzo(k)fluoranthene			710U	160 J	900
Benzo(a)pyrene (BaP)			710U	130 J	230
Indeno(1,2,3-cd)pyrene			710U		900
Dibenz(a,h)anthracene			710U		31
Benzo(g,h,i)perylene			710U		NA
N-nitrosodimethylamine			7100U		NA
Benzidine			7100U		NA
1,2-Diphenylhydrazine			7100U		NA
Benzyl Alcohol			710U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			34U		NA
beta-BHC			34U		NA
delta-BHC			34U		NA
gamma-BHC (Lindane)			34U		520
Heptachlor			34U		150
Aldrin			34U		40
Heptachlor Epoxide			34U		NA
Endosulfan I			34U		50,000
Dieldrin			68U		11
4,4'-DDE			68U	49 J	2,000
Endrin			68U		42
Endosulfan II			68U		50,000
4,4'-DDD (p,p'-TDE)			68U		3,000
Endosulfan Sulfate			68U		50,000
4,4'-DDT			68U		2,000
Methoxychlor			340U		50,000
Endrin Ketone			68U		NA
Endrin Aldehyde			68U		NA
alpha-Chlordane			34U		NA
gamma-Chlordane			34U		NA
Mirex			68U		NA
Toxaphene			680U		100
Aroclor-1016			340U		29
Aroclor-1221			340U		29
Aroclor-1232			340U		29
Aroclor-1242			340U		29
Aroclor-1248			340U		29
Aroclor-1254			340U	120 J	29
Aroclor-1260			340U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,500 BN	14,000
Arsenic				14,800 N	8,000
Barium				130,000	700,000
Beryllium			40U		1,000
Cadmium				1,200	1,000
Chromium				63,700	33,000
Copper				48,900	28,000
Lead				65,500	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		330	100
Nickel				31,000	20,900
Selenium				1,200	63,000
Silver				100 BN	500
Thallium				2,200	2,000
Vanadium				56,500	370,000
Zinc				254,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		71,064	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				53.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				3.3	
Sieve #200				8.7	
Results in Relative %					
Silt				75.6	
Clay				12.4	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits
NR - Not required

Blank spaces represent non-detected compounds.

Sample ID: BPO-1-95-C-6.2 Lab ID: BPO1C6 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			12U		100,000
Acrolein			120U		NA
Acrylonitrile			120U		1,000
Benzene			12U		1,000
Bromodichloromethane			12U		1,000
Bromoform			12U		1,000
Bromomethane			12U		1,000
2-Butanone (MEK)			12U		50,000
Carbon Tetrachloride			12U		1,000
2-Chloroethylvinylether			12U		NA
Chlorobenzene			12U		1,000
Chloroethane			12U		NA
Chloroform			12U		1,000
Chloromethane			12U		10,000
1,2-Dichloropropane			12U		10,000
1,1-Dichloroethane			12U		10,000
1,2-Dichloroethane			12U		1,000
1,1-Dichloroethene			12U		8,000
Dibromochloromethane			12U		1,000
1,2-trans Dichloroethylene			12U		50,000
1,2-cis Dichloroethene			12U		1,000
cis-1,3-Dichloropropene			12U		1,000
trans-1,3-Dichloropropene			12U		1,000
Ethylbenzene			12U		100,000
2-Hexanone			12U		NA
4-Methyl-2-Pentanone (MIBK)			12U		50,000
Methylene Chloride			12U	6 J	1,000
Styrene			12U		23,000
Tetrachloroethylene			12U		1,000
1,1,2,2-Tetrachloroethane			12U		1,000
Toluene			12U		500,000
1,1,1-Trichloroethane			12U		50,000
1,1,2-Trichloroethane			12U		1,000
Trichloroethene (TCE)			12U		1,000
Vinyl Chloride			12U		2,000
Xylenes (Total)			12U		10,000
1,1,1,2-Tetrachloroethane			12U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			390U		50,000
bis(2-chloroethyl)ether			390U		660
2-Chlorophenol			390U		10,000
1,3-Dichlorobenzene			390U		100,000
1,4-Dichlorobenzene			390U		100,000
1,2-Dichlorobenzene			390U		50,000
2-Methylphenol			390U		2,800,000
bis(2-chloroisopropyl)ether			390U		10,000
4-Methylphenol			390U		2,800,000
N-Nitroso-di-n-propylamine			390U		660
Hexachloroethane			390U		6,000
Nitrobenzene			390U		10,000
Isophorone			390U		50,000
2-Nitrophenol			390U		NA
2,4-Dimethylphenol			390U		NA
2,4-Dichlorophenol			390U		10,000
1,2,4-Trichlorobenzene			390U		68,000
Naphthalene			390U		100,000
4-Chloroaniline			390U		230,000
Hexachlorobutadiene			390U		1,000
bis(2-Chloroethoxy)methane			390U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			390U		100,000
Hexachlorocyclopentadiene			390U		100,000
2,4,6-Trichlorophenol			390U		10,000
2,4,5-Trichlorophenol			2000U		50,000
2-Chloronaphthalene			390U		NA
Dimethyl phthalate			390U		50,000
Acenaphthylene			390U		44
2,6-Dinitrotoluene			390U		1,000
Acenaphthene			390U		16
2,4-Dinitrophenol			2000U		10,000
4-Nitrophenol			2000U		NA
2,4-Dinitrotoluene			390U		1,000
Diethylphthalate			390U		50,000
4-Chlorophenyl-phenylether			390U		NA
Fluorene			390U		18
4,6-Dinitro-2-methylphenol			2000U		NA
N-Nitrosodiphenylamine			390U		100,000
4-Bromophenyl-phenylether			390U		NA
Hexachlorobenzene			390U		660
Pentachlorophenol			2000U		6,000
Phenanthrene			390U		NA
Anthracene			390U		85
Di-n-butylphthalate			390U		100,000
Fluoranthene			390U		380
Pyrene			390U		290
Butylbenzylphthalate			390U		100,000
3,3'-Dichlorobenzidine			780U		2,000
Benzo(a)anthracene			390U		160
Chrysene			390U		220
Bis(2-Ethylhexyl)phthalate			390U	480	49,000
Di-n-octylphthalate			390U		100,000

Sample ID: BPO-1-95-C-6.2 Lab ID: BPO1C6 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			390U		900
Benzo(k)fluoranthene			390U		900
Benzo(a)pyrene (BaP)			390U		230
Indeno(1,2,3-cd)pyrene			390U		900
Dibenz(a,h)anthracene			390U		31
Benzo(g,h,i)perylene			390U		NA
N-nitrosodimethylamine			3900U		NA
Benzidine			3900U		NA
1,2-Diphenylhydrazine			3900U		NA
Benzyl Alcohol			390U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			9U		NA
beta-BHC			9U		NA
delta-BHC			9U		NA
gamma-BHC (Lindane)			9U		520
Heptachlor			9U		150
Aldrin			9U		40
Heptachlor Epoxide			9U		NA
Endosulfan I			9U		50,000
Dieldrin			19U		11
4,4'-DDE			19U		2,000
Endrin			19U		42
Endosulfan II			19U		50,000
4,4'-DDD (p,p'-TDE)			19U		3,000
Endosulfan Sulfate			19U		50,000
4,4'-DDT			19U		2,000
Methoxychlor			94U		50,000
Endrin Ketone			19U		NA
Endrin Aldehyde			19U		NA
alpha-Chlordane			9U		NA
gamma-Chlordane			9U		NA
Mirex			19U		NA
Toxaphene			190U		100
Aroclor-1016			94U		29
Aroclor-1221			94U		29
Aroclor-1232			94U		29
Aroclor-1242			94U		29
Aroclor-1248			94U		29
Aroclor-1254			94U		29
Aroclor-1260			94U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				570 BN	14,000
Arsenic				540 BN	8,000
Barium				98,200	700,000
Beryllium			20U		1,000
Cadmium				50 B	1,000
Chromium				26,200	33,000
Copper				11,800	28,000
Lead				6,800	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	120U		100
Nickel				18,900	20,900
Selenium			240U		63,000
Silver				150 BN	500
Thallium				790 B	2,000
Vanadium				29,200	370,000
Zinc				42,100	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		2.412	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				15.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				2.5	
Sieve #10				8.9	
Sieve #40				21.0	
Sieve #200				34.1	
Results in Relative %					
Silt				21.6	
Clay				12.0	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: BPO-2-95-C-0.0 Lab ID: BPO2C0 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days		5/9/95			
Acetone			22U		100,000
Acrolein			220U		NA
Acrylonitrile			220U		1,000
Benzene			22U		1,000
Bromodichloromethane			22U		1,000
Bromoform			22U		1,000
Bromomethane			22U		1,000
2-Butanone (MEK)			22U		50,000
Carbon Tetrachloride			22U		1,000
2-Chloroethylvinylether			22U		NA
Chlorobenzene			22U		1,000
Chloroethane			22U		NA
Chloroform			22U		1,000
Chloromethane			22U		10,000
1,2-Dichloropropane			22U		10,000
1,1-Dichloroethane			22U		10,000
1,2-Dichloroethane			22U		1,000
1,1-Dichloroethene			22U		8,000
Dibromochloromethane			22U		1,000
1,2-trans Dichloroethylene			22U		50,000
1,2-cis Dichloroethene			22U		1,000
cis-1,3-Dichloropropene			22U		1,000
trans-1,3-Dichloropropene			22U		1,000
Ethylbenzene			22U		100,000
2-Hexanone			22U		NA
4-Methyl-2-Pentanone (MIBK)			22U		50,000
Methylene Chloride			22U	14 J	1,000
Styrene			22U		23,000
Tetrachloroethylene			22U		1,000
1,1,2,2-Tetrachloroethane			22U		1,000
Toluene			22U		500,000
1,1,1-Trichloroethane			22U		50,000
1,1,2-Trichloroethane			22U		1,000
Trichloroethene (TCE)			22U		1,000
Vinyl Chloride			22U		2,000
Xylenes (Total)			22U		10,000
1,1,1,2-Tetrachloroethane			22U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			720U		50,000
bis(2-chloroethyl)ether			720U		660
2-Chlorophenol			720U		10,000
1,3-Dichlorobenzene			720U		100,000
1,4-Dichlorobenzene			720U		100,000
1,2-Dichlorobenzene			720U		50,000
2-Methylphenol			720U		2,800,000
bis(2-chloroisopropyl)ether			720U		10,000
4-Methylphenol			720U		2,800,000
N-Nitroso-di-n-propylamine			720U		660
Hexachloroethane			720U		6,000
Nitrobenzene			720U		10,000
Isophorone			720U		50,000
2-Nitrophenol			720U		NA
2,4-Dimethylphenol			720U		NA
2,4-Dichlorophenol			720U		10,000
1,2,4-Trichlorobenzene			720U		68,000
Naphthalene			720U		100,000
4-Chloroaniline			720U		230,000
Hexachlorobutadiene			720U		1,000
bis(2-Chloroethoxy)methane			720U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			720U		100,000
Hexachlorocyclopentadiene			720U		100,000
2,4,6-Trichlorophenol			720U		10,000
2,4,5-Trichlorophenol			3600U		50,000
2-Chloronaphthalene			720U		NA
Dimethyl phthalate			720U		50,000
Acenaphthylene			720U		44
2,6-Dinitrotoluene			720U		1,000
Acenaphthene			720U		16
2,4-Dinitrophenol			3600U		10,000
4-Nitrophenol			3600U		NA
2,4-Dinitrotoluene			720U		1,000
Diethylphthalate			720U		50,000
4-Chlorophenyl-phenylether			720U		NA
Fluorene			720U		18
4,6-Dinitro-2-methylphenol			3600U		NA
N-Nitrosodiphenylamine			720U		100,000
4-Bromophenyl-phenylether			720U		NA
Hexachlorobenzene			720U		660
Pentachlorophenol			3600U		6,000
Phenanthrene			720U	83 J	NA
Anthracene			720U		85
Di-n-butylphthalate			720U	140 J	100,000
Fluoranthene			720U	170 J	380
Pyrene			720U	180 J	290
Butylbenzylphthalate			720U		100,000
3,3'-Dichlorobenzidine			1400U		2,000
Benzo(a)anthracene			720U	82 J	160
Chrysene			720U	120 J	220
Bis(2-Ethylhexyl)phthalate			720U	650 J	49,000
Di-n-octylphthalate			720U		100,000

Sample ID: BPO-2-95-C-0.0 Lab ID: BPO2C0 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			720U	130 J	900
Benzo(k)fluoranthene			720U	97 J	900
Benzo(a)pyrene (BaP)			720U	95 J	230
Indeno(1,2,3-cd)pyrene			720U		900
Dibenz(a,h)anthracene			720U		31
Benzo(g,h,i)perylene			720U		NA
N-nitrosodimethylamine			7200U		NA
Benzidine			7200U		NA
1,2-Diphenylhydrazine			7200U		NA
Benzyl Alcohol			720U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			35U		NA
beta-BHC			35U		NA
delta-BHC			35U		NA
gamma-BHC (Lindane)			35U		520
Heptachlor			35U		130
Aldrin			35U		40
Heptachlor Epoxide			35U		NA
Endosulfan I			35U		50,000
Dieldrin			70U		11
4,4'-DDE			70U		2,000
Endrin			70U		42
Endosulfan II			70U		50,000
4,4'-DDD (p,p'-TDE)			70U		3,000
Endosulfan Sulfate			70U		50,000
4,4'-DDT			70U		2,000
Methoxychlor			350U		50,000
Endrin Ketone			70U		NA
Endrin Aldehyde			70U		NA
alpha-Chlordane			35U		NA
gamma-Chlordane			35U		NA
Mirex			70U		NA
Toxaphene			700U		100
Aroclor-1016			350U		29
Aroclor-1221			350U		29
Aroclor-1232			350U		29
Aroclor-1242			350U		29
Aroclor-1248			350U		29
Aroclor-1254			350U	100 J	29
Aroclor-1260			350U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,600 BN	14,000
Arsenic				13,700 N	8,000
Barium				159,000	700,000
Beryllium				310 B	1,000
Cadmium				2,000	1,000
Chromium				63,000	33,000
Copper				65,700	28,000
Lead				79,800	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		460	100
Nickel				31,500	20,900
Selenium				2,000	63,000
Silver				2,300 N	500
Thallium				2,500	2,000
Vanadium				46,700	370,000
Zinc				319,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		58,804	NA
Cyanide		5/13/95, 5/23/95	0.5U		1,100
Moisture, in Percent				54.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				1.8	
Sieve #200				6.3	
Results in Relative %					
Silt				44.2	
Clay				47.7	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: BPO-2-95-C-4.1 Lab ID: BPO2C4 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			23U		100,000
Acrolein			230U		NA
Acrylonitrile			230U		1,000
Benzene			23U		1,000
Bromodichloromethane			23U		1,000
Bromoform			23U		1,000
Bromomethane			23U		1,000
2-Butanone (MEK)			23U		50,000
Carbon Tetrachloride			23U		1,000
2-Chloroethylvinylether			23U		NA
Chlorobenzene			23U		1,000
Chloroethane			23U		NA
Chloroform			23U		1,000
Chloromethane			23U		10,000
1,2-Dichloropropane			23U		10,000
1,1-Dichloroethane			23U		10,000
1,2-Dichloroethane			23U		1,000
1,1-Dichloroethene			23U		8,000
Dibromochloromethane			23U		1,000
1,2-trans Dichloroethylene			23U		50,000
1,2-cis Dichloroethene			23U		1,000
cis-1,3-Dichloropropene			23U		1,000
trans-1,3-Dichloropropene			23U		1,000
Ethylbenzene			23U		100,000
2-Hexanone			23U		NA
4-Methyl-2-Pentanone (MIBK)			23U		50,000
Methylene Chloride			23U	6 J	1,000
Styrene			23U		23,000
Tetrachloroethylene			23U		1,000
1,1,2,2-Tetrachloroethane			23U		1,000
Toluene			23U	3 J	500,000
1,1,1-Trichloroethane			23U		50,000
1,1,2-Trichloroethane			23U		1,000
Trichloroethene (TCE)			23U		1,000
Vinyl Chloride			23U		2,000
Xylenes (Total)			23U		10,000
1,1,1,2-Tetrachloroethane			23U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			760U		50,000
bis(2-chloroethyl)ether			760U		660
2-Chlorophenol			760U		10,000
1,3-Dichlorobenzene			760U		100,000
1,4-Dichlorobenzene			760U		100,000
1,2-Dichlorobenzene			760U		50,000
2-Methylphenol			760U		2,800,000
bis(2-chloroisopropyl)ether			760U		10,000
4-Methylphenol			760U	130 J	2,800,000
N-Nitroso-di-n-propylamine			760U		660
Hexachloroethane			760U		6,000
Nitrobenzene			760U		10,000
Isophorone			760U		50,000
2-Nitrophenol			760U		NA
2,4-Dimethylphenol			760U		NA
2,4-Dichlorophenol			760U		10,000
1,2,4-Trichlorobenzene			760U		68,000
Naphthalene			760U		100,000
4-Chloroaniline			760U		230,000
Hexachlorobutadiene			760U		1,000
bis(2-Chloroethoxy)methane			760U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			760U		100,000
Hexachlorocyclopentadiene			760U		100,000
2,4,6-Trichlorophenol			760U		10,000
2,4,5-Trichlorophenol			3800U		50,000
2-Chloronaphthalene			760U		NA
Dimethyl phthalate			760U		50,000
Acenaphthylene			760U		44
2,6-Dinitrotoluene			760U		1,000
Acenaphthene			760U		16
2,4-Dinitrophenol			3800U		10,000
4-Nitrophenol			3800U		NA
2,4-Dinitrotoluene			760U		1,000
Diethylphthalate			760U		50,000
4-Chlorophenyl-phenylether			760U		NA
Fluorene			760U		18
4,6-Dinitro-2-methylphenol			3800U		NA
N-Nitrosodiphenylamine			760U		100,000
4-Bromophenyl-phenylether			760U		NA
Hexachlorobenzene			760U		660
Pentachlorophenol			3800U		6,000
Phenanthrene			760U	110 J	NA
Anthracene			760U		85
Di-n-butylphthalate			760U	110 J	100,000
Fluoranthene			760U	190 J	380
Pyrene			760U	220 J	290
Butylbenzylphthalate			760U		100,000
3,3'-Dichlorobenzidine			1500U		2,000
Benzo(a)anthracene			760U	95 J	160
Chrysene			760U	150 J	220
Bis(2-Ethylhexyl)phthalate			760U	890	49,000
Di-n-octylphthalate			760U		100,000

Sample ID: BPO-2-95-C-4.1 Lab ID: BPO2C4 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			760U	120 J	900
Benzo(k)fluoranthene			760U	120 J	900
Benzo(a)pyrene (BaP)			760U	100 J	230
Indeno(1,2,3-cd)pyrene			760U		900
Dibenz(a,h)anthracene			760U		31
Benzo(g,h,i)perylene			760U		NA
N-nitrosodimethylamine			7600U		NA
Benzidine			7600U		NA
1,2-Diphenylhydrazine			7600U		NA
Benzyl Alcohol			760U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			36U		NA
beta-BHC			36U		NA
delta-BHC			36U		NA
gamma-BHC (Lindane)			36U		520
Heptachlor			36U		150
Aldrin			36U		40
Heptachlor Epoxide			36U		NA
Endosulfan I			36U		50,000
Dieldrin			73U		11
4,4'-DDE			73U	43 J	2,000
Endrin			73U		42
Endosulfan II			73U		50,000
4,4'-DDD (p,p'-TDE)			73U		3,000
Endosulfan Sulfate			73U		50,000
4,4'-DDT			73U		2,000
Methoxychlor			360U		50,000
Endrin Ketone			73U		NA
Endrin Aldehyde			73U		NA
alpha-Chlordane			36U		NA
gamma-Chlordane			36U		NA
Mirex			73U		NA
Toxaphene			730U		100
Aroclor-1016			360U		29
Aroclor-1221			360U		29
Aroclor-1232			360U		29
Aroclor-1242			360U		29
Aroclor-1248			360U		29
Aroclor-1254			360U	150 J	29
Aroclor-1260			360U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,300 BN	14,000
Arsenic				14,600 N	8,000
Barium				153,000	700,000
Beryllium			40U		1,000
Cadmium				1,500	1,000
Chromium				71,000	33,000
Copper				58,700	28,000
Lead				76,300	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		360	100
Nickel				37,200	20,900
Selenium				1,400	63,000
Silver				1,700 BN	500
Thallium				2,700	2,000
Vanadium				58,300	370,000
Zinc				273,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		106,273	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				56.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				1.7	
Sieve #200				8.7	
Results in Relative %					
Silt				51.2	
Clay				38.4	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: BST-1-95-C-1.0 Lab ID: BST1C3 Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/05/95			
Acetone			11U		100,000
Acrolein			110U		NA
Acrylonitrile			110U		1000
Benzene			11U		1000
Bromodichloromethane			11U		1000
Bromoform			11U		1000
Bromomethane			11U		1000
2-Butanone (MEK)			11U		50,000
Carbon Tetrachloride			11U		1000
2-Chloroethylvinylether			11U		NA
Chlorobenzene			11U		1000
Chloroethane			11U		NA
Chloroform			11U		1000
Chloromethane			11U		10,000
1,2-Dichloropropane			11U		10,000
1,1-Dichloroethane			11U		10,000
1,2-Dichloroethane			11U		1000
1,1-Dichloroethene			11U		8000
Dibromochloromethane			11U		1000
1,2-trans Dichloroethylene			11U		50,000
1,2-cis Dichloroethene			11U		1000
cis-1,3-Dichloropropene			11U		1000
trans-1,3-Dichloropropene			11U		1000
Ethylbenzene			11U		100,000
2-Hexanone			11U		NA
4-Methyl-2-Pentanone (MIBK)			11U		50,000
Methylene Chloride			11U	3 J	1000
Styrene			11U		23,000
Tetrachloroethylene			11U		1000
1,1,2,2-Tetrachloroethane			11U		1000
Toluene			11U		500,000
1,1,1-Trichloroethane			11U		50,000
1,1,2-Trichloroethane			11U		1000
Trichloroethene (TCE)			11U		1000
Vinyl Chloride			11U		2000
Xylenes (Total)			11U		10,000
1,1,1,2-Tetrachloroethane			11U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/20/95			
Phenol			370U		50,000
bis(2-chloroethyl)ether			370U		660
2-Chlorophenol			370U		10,000
1,3-Dichlorobenzene			370U		100,000
1,4-Dichlorobenzene			370U		100,000
1,2-Dichlorobenzene			370U		50,000
2-Methylphenol			370U		2,800,000
bis(2-chloroisopropyl)ether			370U		10,000
4-Methylphenol			370U		2,800,000
N-Nitroso-di-n-propylamine			370U		660
Hexachloroethane			370U		6,000
Nitrobenzene			370U		10,000
Isophorone			370U		50,000
2-Nitrophenol			370U		NA
2,4-Dimethylphenol			370U		NA
2,4-Dichlorophenol			370U		10,000
1,2,4-Trichlorobenzene			370U		68,000
Naphthalene			370U	41J	100,000
4-Chloroaniline			370U		230,000
Hexachlorobutadiene			370U		1,000
bis(2-Chloroethoxy)methane			370U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			370U		100,000
Hexachlorocyclopentadiene			370U		100,000
2,4,6-Trichlorophenol			370U		10,000
2,4,5-Trichlorophenol			1900U		50,000
2-Chloronaphthalene			370U		NA
Dimethyl phthalate			370U		50,000
Acenaphthylene			370U		44
2,6-Dinitrotoluene			370U		1,000
Acenaphthene			370U		16
2,4-Dinitrophenol			1900U		10,000
4-Nitrophenol			1900U		NA
2,4-Dinitrotoluene			370U		1,000
Diethylphthalate			370U		50,000
4-Chlorophenyl-phenylether			370U		NA
Fluorene			370U		18
4,6-Dinitro-2-methylphenol			1900U		NA
N-Nitrosodiphenylamine			370U		100,000
4-Bromophenyl-phenylether			370U		NA
Hexachlorobenzene			370U		660
Pentachlorophenol			1900U		6,000
Phenanthrene			370U		NA
Anthracene			370U		85
Di-n-butylphthalate			370U		100,000
Fluoranthene			370U		380
Pyrene			370U	38J	290
Butylbenzylphthalate			370U		100,000
3,3'-Dichlorobenzidine			750U		2,000
Benzo(a)anthracene			370U		160
Chrysene			370U		220
Bis(2-Ethylhexyl)phthalate			370U	53J	49,000
Di-n-octylphthalate			370U		100,000

Sample ID: BST-1-95-C-1.0 Lab ID: BST1C3 Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			370U		900
Benzo(k)fluoranthene			370U		900
Benzo(a)pyrene (BaP)			370U		230
Indeno(1,2,3-cd)pyrene			370U		900
Dibenz(a,h)anthracene			370U		31
Benzo(g,h,i)perylene			370U		NA
N-nitrosodimethylamine			3700U		NA
Benzidine			3700U		NA
1,2-Diphenylhydrazine			3700U		NA
Benzyl Alcohol			370U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/13/95			
alpha-BHC			9U		NA
beta-BHC			9U		NA
delta-BHC			9U		NA
gamma-BHC (Lindane)			9U		520
Heptachlor			9U		130
Aldrin			9U		40
Heptachlor Epoxide			9U		NA
Endosulfan I			9U		50,000
Dieldrin			18U		11
4,4'-DDE			18U		2,000
Endrin			18U		42
Endosulfan II			18U		50,000
4,4'-DDD (p,p'-TDE)			18U		3,000
Endosulfan Sulfate			18U		50,000
4,4'-DDT			18U		2,000
Methoxychlor			90U		50,000
Endrin Ketone			18U		NA
Endrin Aldehyde			18U		NA
alpha-Chlordane			9U		NA
gamma-Chlordane			9U		NA
Mirex			18U		NA
Toxaphene			180U		100
Aroclor-1016			90U		29
Aroclor-1221			90U		29
Aroclor-1232			90U		29
Aroclor-1242			90U		29
Aroclor-1248			90U		29
Aroclor-1254			90U		29
Aroclor-1260			90U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				380 BN	14,000
Arsenic				590 B	8,000
Barium				11,600 B	700,000
Beryllium				150 B	1,000
Cadmium				40 B	1,000
Chromium				9,600 N	33,000
Copper				5,100 N*	28,000
Lead				2,900	21,000
Mercury	5/22/95	5/31/95	110U		100
Nickel				5,800	20,900
Selenium			210U		63,000
Silver				60 BN	500
Thallium			340U		2,000
Vanadium				8,600	370,000
Zinc				19,700	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		1056	NA
Cyanide		5/13/95-5/19/95	0.56U		1,100
Moisture, in Percent				11.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				5.4	
Sieve #10				6.3	
Sieve #40				67.0	
Sieve #200				15.0	
Results in Relative %					
Silt				3.4	
Clay				2.9	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: BST-1-95-C-3.75 Lab ID: BST1CS Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/05/95			
Acetone			13U		100,000
Acrolein			130U		NA
Acrylonitrile			130U		1000
Benzene			13U		1000
Bromodichloromethane			13U		1000
Bromoform			13U		1000
Bromomethane			13U		1000
2-Butanone (MEK)			13U		50,000
Carbon Tetrachloride			13U		1000
2-Chloroethylvinylether			13U		NA
Chlorobenzene			13U		1000
Chloroethane			13U		NA
Chloroform			13U		1000
Chloromethane			13U		10,000
1,2-Dichloropropane			13U		10,000
1,1-Dichloroethane			13U		10,000
1,2-Dichloroethane			13U		1000
1,1-Dichloroethene			13U		8000
Dibromochloromethane			13U		1000
1,2-trans Dichloroethylene			13U		50,000
1,2-cis Dichloroethene			13U		1000
cis-1,3-Dichloropropene			13U		1000
trans-1,3-Dichloropropene			13U		1000
Ethylbenzene			13U		100,000
2-Hexanone			13U		NA
4-Methyl-2-Pentanone (MIBK)			13U		50,000
Methylene Chloride			13U	4 J	1000
Styrene			13U		23,000
Tetrachloroethylene			13U		1000
1,1,2,2-Tetrachloroethane			13U		1000
Toluene			13U		500,000
1,1,1-Trichloroethane			13U		50,000
1,1,2-Trichloroethane			13U		1000
Trichloroethene (TCE)			13U		1000
Vinyl Chloride			13U		2000
Xylenes (Total)			13U		10,000
1,1,1,2-Tetrachloroethane			13U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/20/95			
Phenol			420U		50,000
bis(2-chloroethyl)ether			420U		660
2-Chlorophenol			420U		10,000
1,3-Dichlorobenzene			420U		100,000
1,4-Dichlorobenzene			420U		100,000
1,2-Dichlorobenzene			420U		50,000
2-Methylphenol			420U		2,800,000
bis(2-chloroisopropyl)ether			420U		10,000
4-Methylphenol			420U		2,800,000
N-Nitroso-di-n-propylamine			420U		660
Hexachloroethane			420U		6,000
Nitrobenzene			420U		10,000
Isophorone			420U		50,000
2-Nitrophenol			420U		NA
2,4-Dimethylphenol			420U		NA
2,4-Dichlorophenol			420U		10,000
1,2,4-Trichlorobenzene			420U		68,000
Naphthalene			420U		100,000
4-Chloroaniline			420U		230,000
Hexachlorobutadiene			420U		1,000
bis(2-Chloroethoxy)methane			420U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			420U		100,000
Hexachlorocyclopentadiene			420U		100,000
2,4,6-Trichlorophenol			420U		10,000
2,4,5-Trichlorophenol			2100U		50,000
2-Chloronaphthalene			420U		NA
Dimethyl phthalate			420U		50,000
Acenaphthylene			420U		44
2,6-Dinitrotoluene			420U		1,000
Acenaphthene			420U		16
2,4-Dinitrophenol			2100U		10,000
4-Nitrophenol			2100U		NA
2,4-Dinitrotoluene			420U		1,000
Diethylphthalate			420U		50,000
4-Chlorophenyl-phenylether			420U		NA
Fluorene			420U		18
4,6-Dinitro-2-methylphenol			2100U		NA
N-Nitrosodiphenylamine			420U		100,000
4-Bromophenyl-phenylether			420U		NA
Hexachlorobenzene			420U		660
Pentachlorophenol			2100U		6,000
Phenanthrene			420U		NA
Anthracene			420U		85
Di-n-butylphthalate			420U		100,000
Fluoranthene			420U		380
Pyrene			420U		290
Butylbenzylphthalate			420U		100,000
3,3'-Dichlorobenzidine			840U		2,000
Benzo(a)anthracene			420U		160
Chrysene			420U		220
Bis(2-Ethylhexyl)phthalate			420U		49,000
Di-n-octylphthalate			420U		100,000

Sample ID: BST-1-95-C-3.75 Lab ID: BST1C5 Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			420U		900
Benzo(k)fluoranthene			420U		900
Benzo(a)pyrene (BaP)			420U		230
Indeno(1,2,3-cd)pyrene			420U		900
Dibenz(a,h)anthracene			420U		31
Benzo(g,h,i)perylene			420U		NA
N-nitrosodimethylamine			4200U		NA
Benzidine			4200U		NA
1,2-Diphenylhydrazine			4200U		NA
Benzyl Alcohol			420U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/13/95			
alpha-BHC			10U		NA
beta-BHC			10U		NA
delta-BHC			10U		NA
gamma-BHC (Lindane)			10U		520
Heptachlor			10U		150
Aldrin			10U		40
Heptachlor Epoxide			10U		NA
Endosulfan I			10U		50,000
Dieldrin			20U		11
4,4'-DDE			20U		2,000
Endrin			20U		42
Endosulfan II			20U		50,000
4,4'-DDD (p,p'-TDE)			20U		3,000
Endosulfan Sulfate			20U		50,000
4,4'-DDT			20U		2,000
Methoxychlor			100U		50,000
Endrin Ketone			20U		NA
Endrin Aldehyde			20U		NA
alpha-Chlordane			10U		NA
gamma-Chlordane			10U		NA
Mirex			20U		NA
Toxaphene			200U		100
Aroclor-1016			100U		29
Aroclor-1221			100U		29
Aroclor-1232			100U		29
Aroclor-1242			100U		29
Aroclor-1248			100U		29
Aroclor-1254			100U		29
Aroclor-1260			100U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				980 BN	14,000
Arsenic				1,100	8,000
Barium				9,700 B	700,000
Beryllium				730	1,000
Cadmium				120 B	1,000
Chromium				32,800 N	33,000
Copper				6,800 N*	28,000
Lead				5,900	21,000
Mercury	5/22/95	5/31/95	130U		100
Nickel				120 B	20,900
Selenium				510 B	63,000
Silver			60U	60 UN	500
Thallium			350U		2,000
Vanadium				63,500	370,000
Zinc				2,000 B	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		797	NA
Cyanide		5/13/95-5/19/95	0.63U		1,100
Moisture, in Percent				21.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				2.0	
Sieve #200				2.0	
Results in Relative %					
Silt				34.3	
Clay				61.7	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: BST-2-95-C-0.0 Lab ID: BST2C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/10/95			
Acetone			12U		100,000
Acrolein			120U		NA
Acrylonitrile			120U		1,000
Benzene			12U		1,000
Bromodichloromethane			12U		1,000
Bromoform			12U		1,000
Bromomethane			12U		1,000
2-Butanone (MEK)			12U		50,000
Carbon Tetrachloride			12U		1,000
2-Chloroethylvinylether			12U		NA
Chlorobenzene			12U		1,000
Chloroethane			12U		NA
Chloroform			12U		1,000
Chloromethane			12U		10,000
1,2-Dichloropropane			12U		10,000
1,1-Dichloroethane			12U		10,000
1,2-Dichloroethane			12U		1,000
1,1-Dichloroethene			12U		8,000
Dibromochloromethane			12U		1,000
1,2-trans Dichloroethylene			12U		50,000
1,2-cis Dichloroethene			12U		1,000
cis-1,3-Dichloropropene			12U		1,000
trans-1,3-Dichloropropene			12U		1,000
Ethylbenzene			12U		100,000
2-Hexanone			12U		NA
4-Methyl-2-Pentanone (MIBK)			12U		50,000
Methylene Chloride			12U	5 J	1,000
Styrene			12U		23,000
Tetrachloroethylene			12U		1,000
1,1,2,2-Tetrachloroethane			12U		1,000
Toluene			12U		500,000
1,1,1-Trichloroethane			12U		50,000
1,1,2-Trichloroethane			12U		1,000
Trichloroethene (TCE)			12U		1,000
Vinyl Chloride			12U		2,000
Xylenes (Total)			12U		10,000
1,1,1,2-Tetrachloroethane			12U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/26/95			
Phenol			420U		50,000
bis(2-chloroethyl)ether			420U		660
2-Chlorophenol			420U		10,000
1,3-Dichlorobenzene			420U		100,000
1,4-Dichlorobenzene			420U		100,000
1,2-Dichlorobenzene			420U		50,000
2-Methylphenol			420U		2,800,000
bis(2-chloroisopropyl)ether			420U		10,000
4-Methylphenol			420U		2,800,000
N-Nitroso-di-n-propylamine			420U		660
Hexachloroethane			420U		6,000
Nitrobenzene			420U		10,000
Isophorone			420U		50,000
2-Nitrophenol			420U		NA
2,4-Dimethylphenol			420U		NA
2,4-Dichlorophenol			420U		10,000
1,2,4-Trichlorobenzene			420U		68,000
Naphthalene			420U		100,000
4-Chloroaniline			420U		230,000
Hexachlorobutadiene			420U		1,000
bis(2-Chloroethoxy)methane			420U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			420U		100,000
Hexachlorocyclopentadiene			420U		100,000
2,4,6-Trichlorophenol			420U		10,000
2,4,5-Trichlorophenol			2100U		50,000
2-Chloronaphthalene			420U		NA
Dimethyl phthalate			420U		50,000
Acenaphthylene			420U	67 J	44
2,6-Dinitrotoluene			420U		1,000
Acenaphthene			420U	140 J	16
2,4-Dinitrophenol			2100U		10,000
4-Nitrophenol			2100U		NA
2,4-Dinitrotoluene			420U		1,000
Diethylphthalate			420U		50,000
4-Chlorophenyl-phenylether			420U		NA
Fluorene			420U	150 J	18
4,6-Dinitro-2-methylphenol			2100U		NA
N-Nitrosodiphenylamine			420U		100,000
4-Bromophenyl-phenylether			420U		NA
Hexachlorobenzene			420U		660
Pentachlorophenol			2100U		6,000
Phenanthrene			420U	1200	NA
Anthracene			420U	220 J	85
Di-n-butylphthalate			420U		100,000
Fluoranthene			420U	1600	380
Pyrene			420U	1300	290
Butylbenzylphthalate			420U		100,000
3,3'-Dichlorobenzidine			830U		2,000
Benzo(a)anthracene			420U	650	160
Chrysene			420U	620	220
Bis(2-Ethylhexyl)phthalate			420U	91 J	49,000
Di-n-octylphthalate			420U		100,000

Sample ID: BST-2-95-C-0.0 Lab ID: BST2C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			420U	410 J	900
Benzo(k)fluoranthene			420U	450	900
Benzo(a)pyrene (BaP)			420U	620	230
Indeno(1,2,3-cd)pyrene			420U	230 J	900
Dibenz(a,h)anthracene			420U		31
Benzo(g,h,i)perylene			420U	200 J	NA
N-nitrosodimethylamine			4200U		NA
Benzidine			4200U		NA
1,2-Diphenylhydrazine			4200U		NA
Benzyl Alcohol			420U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			20U		NA
beta-BHC			20U		NA
delta-BHC			20U		NA
gamma-BHC (Lindane)			20U		520
Heptachlor			20U		150
Aldrin			20U		40
Heptachlor Epoxide			20U		NA
Endosulfan I			20U		50,000
Dieldrin			40U		11
4,4'-DDE			40U		2,000
Endrin			40U		42
Endosulfan II			40U		50,000
4,4'-DDD (p,p'-TDE)			40U		3,000
Endosulfan Sulfate			40U		50,000
4,4'-DDT			40U		2,000
Methoxychlor			200U		50,000
Endrin Ketone			40U		NA
Endrin Aldehyde			40U		NA
alpha-Chlordane			20U		NA
gamma-Chlordane			20U		NA
Mirex			40U		NA
Toxaphene			400U		100
Aroclor-1016			200U		29
Aroclor-1221			200U		29
Aroclor-1232			200U		29
Aroclor-1242			200U		29
Aroclor-1248			200U		29
Aroclor-1254			200U		29
Aroclor-1260			200U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				450 BN	14,000
Arsenic				4,100 N	8,000
Barium				47,300	700,000
Beryllium			20U		1,000
Cadmium				150 B	1,000
Chromium				18,700	33,000
Copper				6,400	28,000
Lead				7,300	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	120U		100
Nickel				11,900	20,900
Selenium			260U		63,000
Silver				100 BN	500
Thallium				800 B	2,000
Vanadium				17,600	370,000
Zinc				44,500	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		2,663	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				20.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.6	
Sieve #40				3.3	
Sieve #200				64.5	
Results in Relative %					
Silt				17.3	
Clay				14.3	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: BST-2-95-C-0.75 Lab ID: BST2C1 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/10/95			
Acetone			12U		100,000
Acrolein			120U		NA
Acrylonitrile			120U		1,000
Benzene			12U		1,000
Bromodichloromethane			12U		1,000
Bromoform			12U		1,000
Bromomethane			12U		1,000
2-Butanone (MEK)			12U		50,000
Carbon Tetrachloride			12U		1,000
2-Chloroethylvinylether			12U		NA
Chlorobenzene			12U		1,000
Chloroethane			12U		NA
Chloroform			12U		1,000
Chloromethane			12U		10,000
1,2-Dichloropropane			12U		10,000
1,1-Dichloroethane			12U		10,000
1,2-Dichloroethane			12U		1,000
1,1-Dichloroethene			12U		8,000
Dibromochloromethane			12U		1,000
1,2-trans Dichloroethylene			12U		50,000
1,2-cis Dichloroethene			12U		1,000
cis-1,3-Dichloropropene			12U		1,000
trans-1,3-Dichloropropene			12U		1,000
Ethylbenzene			12U		100,000
2-Hexanone			12U		NA
4-Methyl-2-Pentanone (MIBK)			12U		50,000
Methylene Chloride			12U	3 J	1,000
Styrene			12U		23,000
Tetrachloroethylene			12U		1,000
1,1,2,2-Tetrachloroethane			12U		1,000
Toluene			12U		500,000
1,1,1-Trichloroethane			12U		50,000
1,1,2-Trichloroethane			12U		1,000
Trichloroethene (TCE)			12U		1,000
Vinyl Chloride			12U		2,000
Xylenes (Total)			12U		10,000
1,1,1,2-Tetrachloroethane			12U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/26/95			
Phenol			390U		50,000
bis(2-chloroethyl)ether			390U		660
2-Chlorophenol			390U		10,000
1,3-Dichlorobenzene			390U		100,000
1,4-Dichlorobenzene			390U		100,000
1,2-Dichlorobenzene			390U		50,000
2-Methylphenol			390U		2,800,000
bis(2-chloroisopropyl)ether			390U		10,000
4-Methylphenol			390U		2,800,000
N-Nitroso-di-n-propylamine			390U		660
Hexachloroethane			390U		6,000
Nitrobenzene			390U		10,000
Isophorone			390U		50,000
2-Nitrophenol			390U		NA
2,4-Dimethylphenol			390U		NA
2,4-Dichlorophenol			390U		10,000
1,2,4-Trichlorobenzene			390U		68,000
Naphthalene			390U		100,000
4-Chloroaniline			390U		230,000
Hexachlorobutadiene			390U		1,000
bis(2-Chloroethoxy)methane			390U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			390U		100,000
Hexachlorocyclopentadiene			390U		100,000
2,4,6-Trichlorophenol			390U		10,000
2,4,5-Trichlorophenol			2000U		50,000
2-Chloronaphthalene			390U		NA
Dimethyl phthalate			390U		50,000
Acenaphthylene			390U		44
2,6-Dinitrotoluene			390U		1,000
Acenaphthene			390U		16
2,4-Dinitrophenol			2000U		10,000
4-Nitrophenol			2000U		NA
2,4-Dinitrotoluene			390U		1,000
Diethylphthalate			390U		50,000
4-Chlorophenyl-phenylether			390U		NA
Fluorene			390U		18
4,6-Dinitro-2-methylphenol			2000U		NA
N-Nitrosodiphenylamine			390U		130,000
4-Bromophenyl-phenylether			390U		NA
Hexachlorobenzene			390U		660
Pentachlorophenol			2000U		6,000
Phenanthrene			390U		NA
Anthracene			390U		85
Di-n-butylphthalate			390U		100,000
Fluoranthene			390U		380
Pyrene			390U		290
Butylbenzylphthalate			390U		100,000
3,3'-Dichlorobenzidine			780U		2,000
Benzo(a)anthracene			390U		160
Chrysene			390U		220
Bis(2-Ethylhexyl)phthalate			390U		49,000
Di-n-octylphthalate			390U		100,000

Sample ID: BST-2-95-C-0.75 Lab ID: BST2C1 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			390U		900
Benzo(k)fluoranthene			390U		900
Benzo(a)pyrene (BaP)			390U	44 J	230
Indeno(1,2,3-cd)pyrene			390U		900
Dibenz(a,h)anthracene			390U		31
Benzo(g,h,i)perylene			390U		NA
N-nitrosodimethylamine			3900U		NA
Benzidine			3900U		NA
1,2-Diphenylhydrazine			3900U		NA
Benzyl Alcohol			390U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/13/95			
alpha-BHC			9U		NA
beta-BHC			9U		NA
delta-BHC			9U		NA
gamma-BHC (Lindane)			9U		520
Heptachlor			9U		150
Aldrin			9U		40
Heptachlor Epoxide			9U		NA
Endosulfan I			9U		50,000
Dieldrin			19U		11
4,4'-DDE			19U		2,000
Endrin			19U		42
Endosulfan II			19U		50,000
4,4'-DDD (p,p'-TDE)			19U		3,000
Endosulfan Sulfate			19U		50,000
4,4'-DDT			19U		2,000
Methoxychlor			94U		50,000
Endrin Ketone			19U		NA
Endrin Aldehyde			19U		NA
alpha-Chlordane			9U		NA
gamma-Chlordane			9U		NA
Mirex			19U		NA
Toxaphene			190U		100
Aroclor-1016			94U		29
Aroclor-1221			94U		29
Aroclor-1232			94U		29
Aroclor-1242			94U		29
Aroclor-1248			94U		29
Aroclor-1254			94U		29
Aroclor-1260			94U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			400U	400 UN	14,000
Arsenic				770 BN	8,000
Barium				6,500 B	700,000
Beryllium				260 B	1,000
Cadmium			30U		1,000
Chromium				3,600	33,000
Copper				3,400	28,000
Lead				1,300	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	120U		100
Nickel				1,600 B	20,900
Selenium			240U		63,000
Silver			70U	70 UN	500
Thallium			380U		2,000
Vanadium				8,200	370,000
Zinc				8,600	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		976	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				15.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				1.1	
Sieve #200				40.4	
Results in Relative %					
Silt				39.1	
Clay				19.4	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: CRC-1-95-C-0.0 Lab ID: CRC1C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			26U		100,000
Acrolein			260U		NA
Acrylonitrile			260U		1,000
Benzene			26U		1,000
Bromodichloromethane			26U		1,000
Bromoform			26U		1,000
Bromomethane			26U		1,000
2-Butanone (MEK)			26U		50,000
Carbon Tetrachloride			26U		1,000
2-Chloroethylvinylether			26U		NA
Chlorobenzene			26U		1,000
Chloroethane			26U		NA
Chloroform			26U		1,000
Chloromethane			26U		10,000
1,2-Dichloropropane			26U		10,000
1,1-Dichloroethane			26U		10,000
1,2-Dichloroethane			26U		1,000
1,1-Dichloroethene			26U		8,000
Dibromochloromethane			26U		1,000
1,2-trans Dichloroethylene			26U		50,000
1,2-cis Dichloroethene			26U		1,000
cis-1,3-Dichloropropene			26U		1,000
trans-1,3-Dichloropropene			26U		1,000
Ethylbenzene			26U	3 J	100,000
2-Hexanone			26U		NA
4-Methyl-2-Pentanone (MIBK)			26U		50,000
Methylene Chloride			3100U	6 J	1,000
Styrene			26U		23,000
Tetrachloroethylene			26U		1,000
1,1,2,2-Tetrachloroethane			26U		1,000
Toluene		5/12/95 rerun	3100U	6700 D	500,000
1,1,1-Trichloroethane			26U		50,000
1,1,2-Trichloroethane			26U		1,000
Trichloroethene (TCE)			26U		1,000
Vinyl Chloride			26U		2,000
Xylenes (Total)			26U	9 J	10,000
1,1,1,2-Tetrachloroethane			26U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			850U		50,000
bis(2-chloroethyl)ether			850U		660
2-Chlorophenol			850U		10,000
1,3-Dichlorobenzene			850U		100,000
1,4-Dichlorobenzene			850U		100,000
1,2-Dichlorobenzene			850U		50,000
2-Methylphenol			850U		2,800,000
bis(2-chloroisopropyl)ether			850U		10,000
4-Methylphenol			850U	560 J	2,800,000
N-Nitroso-di-n-propylamine			850U		660
Hexachloroethane			850U		6,000
Nitrobenzene			850U		10,000
Isophorone			850U		50,000
2-Nitrophenol			850U		NA
2,4-Dimethylphenol			850U		NA
2,4-Dichlorophenol			850U		10,000
1,2,4-Trichlorobenzene			850U		68,000
Naphthalene			850U	110 J	100,000
4-Chloroaniline			850U		230,000
Hexachlorobutadiene			850U		1,000
bis(2-Chloroethoxy)methane			850U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			850U		100,000
Hexachlorocyclopentadiene			850U		100,000
2,4,6-Trichlorophenol			850U		10,000
2,4,5-Trichlorophenol			4300U		50,000
2-Chloronaphthalene			850U		NA
Dimethyl phthalate			850U		50,000
Acenaphthylene			850U		44
2,6-Dinitrotoluene			850U		1,000
Acenaphthene			850U		16
2,4-Dinitrophenol			4300U		10,000
4-Nitrophenol			4300U		NA
2,4-Dinitrotoluene			850U		1,000
Diethylphthalate			850U		50,000
4-Chlorophenyl-phenylether			850U		NA
Fluorene			850U		18
4,6-Dinitro-2-methylphenol			4300U		NA
N-Nitrosodiphenylamine			850U		100,000
4-Bromophenyl-phenylether			850U		NA
Hexachlorobenzene			850U		660
Pentachlorophenol			4300U		6,000
Phenanthrene			850U	430 J	NA
Anthracene			850U	140 J	85
Di-n-butylphthalate			850U	240 J	100,000
Fluoranthene			850U	880	380
Pyrene			850U	820 J	290
Butylbenzylphthalate			850U		100,000
3,3'-Dichlorobenzidine			1700U		2,000
Benzo(a)anthracene			850U	400 J	160
Chrysene			850U	520 J	220
Bis(2-Ethylhexyl)phthalate			850U	3500	49,000
Di-n-octylphthalate			850U	150 J	100,000

Sample ID: CRC-1-95-C-0.0 Lab ID: CRC1C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			850U	500 J	900
Benzo(k)fluoranthene			850U	570 J	900
Benzo(a)pyrene (BaP)			850U	460 J	230
Indeno(1,2,3-cd)pyrene			850U	160 J	900
Dibenz(a,h)anthracene			850U		31
Benzo(g,h,i)perylene			850U	200 J	NA
N-nitrosodimethylamine			8500U		NA
Benzidine			8500U		NA
1,2-Diphenylhydrazine			8500U		NA
Benzyl Alcohol			850U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			41U		NA
beta-BHC			41U		NA
delta-BHC			41U		NA
gamma-BHC (Lindane)			41U		520
Heptachlor			41U		150
Aldrin			41U		40
Heptachlor Epoxide			41U		NA
Endosulfan I			41U		50,000
Dieldrin			82U		11
4,4'-DDE			82U	72 J	2,000
Endrin			82U		42
Endosulfan II			82U		50,000
4,4'-DDD (p,p'-TDE)			82U		3,000
Endosulfan Sulfate			82U		50,000
4,4'-DDT			82U		2,000
Methoxychlor			410U		50,000
Endrin Ketone			82U		NA
Endrin Aldehyde			82U		NA
alpha-Chlordane			41U		NA
gamma-Chlordane			41U		NA
Mirex			82U		NA
Toxaphene			820U		100
Aroclor-1016			410U		29
Aroclor-1221			410U		29
Aroclor-1232			410U		29
Aroclor-1242			410U		29
Aroclor-1248			410U		29
Aroclor-1254			410U	310 J	29
Aroclor-1260			410U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,900 BN	14,000
Arsenic				10,900 N	8,000
Barium				188,000	700,000
Beryllium				590 B	1,000
Cadmium				3,300	1,000
Chromium				64,300	33,000
Copper				79,700	28,000
Lead				103,000	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		390	100
Nickel				30,600	20,900
Selenium				1,900	63,000
Silver				2,400 BN	500
Thallium				3,100	2,000
Vanadium				49,800	370,000
Zinc				452,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		100,591	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				56.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				3.4	
Sieve #200				9.2	
Results in Relative %					
Silt				85.7	
Clay				1.7	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: CRC-1-95-C-3.5 Lab ID: CRC1C3 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/10/95			
Acetone			18U		100,000
Acrolein			180U		NA
Acrylonitrile			180U		1,000
Benzene			18U		1,000
Bromodichloromethane			18U		1,000
Bromoform			18U		1,000
Bromomethane			18U		1,000
2-Butanone (MEK)			18U		50,000
Carbon Tetrachloride			18U		1,000
2-Chloroethylvinylether			18U		NA
Chlorobenzene			18U		1,000
Chloroethane			18U		NA
Chloroform			18U		1,000
Chloromethane			18U		10,000
1,2-Dichloropropane			18U		10,000
1,1-Dichloroethane			18U		10,000
1,2-Dichloroethane			18U		1,000
1,1-Dichloroethene			18U		8,000
Dibromochloromethane			18U		1,000
1,2-trans Dichloroethylene			18U		50,000
1,2-cis Dichloroethene			18U		1,000
cis-1,3-Dichloropropene			18U		1,000
trans-1,3-Dichloropropene			18U		1,000
Ethylbenzene			18U		100,000
2-Hexanone			18U		NA
4-Methyl-2-Pentanone (MIBK)			18U		50,000
Methylene Chloride			18U		1,000
Styrene			18U		23,000
Tetrachloroethylene			18U		1,000
1,1,2,2-Tetrachloroethane			18U		1,000
Toluene			18U		500,000
1,1,1-Trichloroethane			18U		50,000
1,1,2-Trichloroethane			18U		1,000
Trichloroethene (TCE)			18U		1,000
Vinyl Chloride			18U		2,000
Xylenes (Total)			18U		10,000
1,1,1,2-Tetrachloroethane			18U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			620U		50,000
bis(2-chloroethyl)ether			620U		660
2-Chlorophenol			620U		10,000
1,3-Dichlorobenzene			620U		100,000
1,4-Dichlorobenzene			620U		100,000
1,2-Dichlorobenzene			620U		50,000
2-Methylphenol			620U		2,800,000
bis(2-chloroisopropyl)ether			620U		10,000
4-Methylphenol			620U	320 J	2,800,000
N-Nitroso-di-n-propylamine			620U		660
Hexachloroethane			620U		6,000
Nitrobenzene			620U		10,000
Isophorone			620U		50,000
2-Nitrophenol			620U		NA
2,4-Dimethylphenol			620U		NA
2,4-Dichlorophenol			620U		10,000
1,2,4-Trichlorobenzene			620U		68,000
Naphthalene			620U	68 J	100,000
4-Chloroaniline			620U		230,000
Hexachlorobutadiene			620U		1,000
bis(2-Chloroethoxy)methane			620U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			620U		100,000
Hexachlorocyclopentadiene			620U		100,000
2,4,6-Trichlorophenol			620U		10,000
2,4,5-Trichlorophenol			3100U		50,000
2-Chloronaphthalene			620U		NA
Dimethyl phthalate			620U		50,000
Acenaphthylene			620U		44
2,6-Dinitrotoluene			620U		1,000
Acenaphthene			620U		16
2,4-Dinitrophenol			3100U		10,000
4-Nitrophenol			3100U		NA
2,4-Dinitrotoluene			620U		1,000
Diethylphthalate			620U		50,000
4-Chlorophenyl-phenylether			620U		NA
Fluorene			620U		18
4,6-Dinitro-2-methylphenol			3100U		NA
N-Nitrosodiphenylamine			620U		100,000
4-Bromophenyl-phenylether			620U		NA
Hexachlorobenzene			620U		660
Pentachlorophenol			3100U		6,000
Phenanthrene			620U	350 J	NA
Anthracene			620U	110 J	85
Di-n-butylphthalate			620U	93 J	100,000
Fluoranthene			620U	730	380
Pyrene			620U	720	290
Butylbenzylphthalate			620U		100,000
3,3'-Dichlorobenzidine			1200U		2,000
Benzo(a)anthracene			620U	320 J	160
Chrysene			620U	420 J	220
Bis(2-Ethylhexyl)phthalate			620U	4700	49,000
Di-n-octylphthalate			620U		100,000

Sample ID: CRC-1-95-C-3.5 Lab ID: CRC1C3 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			620U	360 J	900
Benzo(k)fluoranthene			620U	340 J	900
Benzo(a)pyrene (BaP)			620U	300 J	230
Indeno(1,2,3-cd)pyrene			620U	99 J	900
Dibenz(a,h)anthracene			620U		31
Benzo(g,h,i)perylene			620U	140 J	NA
N-nitrosodimethylamine			6200U		NA
Benzidine			6200U		NA
1,2-Diphenylhydrazine			6200U		NA
Benzyl Alcohol			620U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			30U		NA
beta-BHC			30U		NA
delta-BHC			30U		NA
gamma-BHC (Lindane)			30U		520
Heptachlor			30U		150
Aldrin			30U		40
Heptachlor Epoxide			30U		NA
Endosulfan I			30U		50,000
Dieldrin			59U		11
4,4'-DDE			59U	77	2,000
Endrin			59U		42
Endosulfan II			59U		50,000
4,4'-DDD (p,p'-TDE)			59U		3,000
Endosulfan Sulfate			59U		50,000
4,4'-DDT			59U		2,000
Methoxychlor			300U		50,000
Endrin Ketone			59U		NA
Endrin Aldehyde			59U		NA
alpha-Chlordane			30U		NA
gamma-Chlordane			30U		NA
Mirex			59U		NA
Toxaphene			590U		100
Aroclor-1016			300U		29
Aroclor-1221			300U		29
Aroclor-1232			300U		29
Aroclor-1242			300U		29
Aroclor-1248			300U		29
Aroclor-1254			300U	140 J	29
Aroclor-1260			300U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,800 BN	14,000
Arsenic				10,500 N	8,000
Barium				189,000	700,000
Beryllium				780 B	1,000
Cadmium				4,500	1,000
Chromium				71,600	33,000
Copper				95,900	28,000
Lead				122,000	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		590	100
Nickel				32,000	20,900
Selenium				1,200	63,000
Silver				3,600 N	500
Thallium				2,300	2,000
Vanadium				39,800	370,000
Zinc				452,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		79,389	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				46.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				0.8	
Sieve #200				9.4	
Results in Relative %					
Silt				73.1	
Clay				16.7	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: CRC-2-95-C-0.0 Lab ID: CRC2C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/08/95			
Acetone			22U		100,000
Acrolein			220U		NA
Acrylonitrile			220U		1000
Benzene			22U		1000
Bromodichloromethane			22U		1000
Bromoform			22U		1000
Bromomethane			22U		1000
2-Butanone (MEK)			22U		50,000
Carbon Tetrachloride			22U		1000
2-Chloroethylvinylether			22U		NA
Chlorobenzene			22U		1000
Chloroethane			22U		NA
Chloroform			22U		1000
Chloromethane			22U		10,000
1,2-Dichloropropane			22U		10,000
1,1-Dichloroethane			22U		10,000
1,2-Dichloroethane			22U		1000
1,1-Dichloroethene			22U		8000
Dibromochloromethane			22U		1000
1,2-trans Dichloroethylene			22U		50,000
1,2-cis Dichloroethene			22U		1000
cis-1,3-Dichloropropene			22U		1000
trans-1,3-Dichloropropene			22U		1000
Ethylbenzene			22U		100,000
2-Hexanone			22U		NA
4-Methyl-2-Pentanone (MIBK)			22U		50,000
Methylene Chloride			22U		1000
Styrene			22U		23,000
Tetrachloroethylene			22U		1000
1,1,2,2-Tetrachloroethane			22U		1000
Toluene			22U		500,000
1,1,1-Trichloroethane			22U		50,000
1,1,2-Trichloroethane			22U		1000
Trichloroethene (TCE)			22U		1000
Vinyl Chloride			22U		2000
Xylenes (Total)			22U		10,000
1,1,1,2-Tetrachloroethane			22U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/19/95			
Phenol			3600U		50,000
bis(2-chloroethyl)ether			3600U		660
2-Chlorophenol			3600U		10,000
1,3-Dichlorobenzene			3600U		100,000
1,4-Dichlorobenzene			3600U		100,000
1,2-Dichlorobenzene			3600U		50,000
2-Methylphenol			3600U		2,800,000
bis(2-chloroisopropyl)ether			3600U		10,000
4-Methylphenol			3600U	1400J	2,800,000
N-Nitroso-di-n-propylamine			3600U		660
Hexachloroethane			3600U		6,000
Nitrobenzene			3600U		10,000
Isophorone			3600U		50,000
2-Nitrophenol			3600U		NA
2,4-Dimethylphenol			3600U		NA
2,4-Dichlorophenol			3600U		10,000
1,2,4-Trichlorobenzene			3600U		68,000
Naphthalene			3600U		100,000
4-Chloroaniline			3600U		220,000
Hexachlorobutadiene			3600U		1,000
bis(2-Chloroethoxy)methane			3600U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			3600U		100,000
Hexachlorocyclopentadiene			3600U		100,000
2,4,6-Trichlorophenol			3600Y		10,000
2,4,5-Trichlorophenol			18000U		50,000
2-Chloronaphthalene			3600U		NA
Dimethyl phthalate			3600U		50,000
Acenaphthylene			3600U		44
2,6-Dinitrotoluene			3600U		1,000
Acenaphthene			3600U		16
2,4-Dinitrophenol			18000U		10,000
4-Nitrophenol			18000U		NA
2,4-Dinitrotoluene			3600U		1,000
Diethylphthalate			3600U		50,000
4-Chlorophenyl-phenylether			3600U		NA
Fluorene			3600U		18
4,6-Dinitro-2-methylphenol			18000U		NA
N-Nitrosodiphenylamine			3600U		100,000
4-Bromophenyl-phenylether			3600U		NA
Hexachlorobenzene			3600U		660
Pentachlorophenol			18000U		6,000
Phenanthrene			3600U		NA
Anthracene			3600U		85
Di-n-butylphthalate			3600U		100,000
Fluoranthene			3600U	700J	380
Pyrene			3600U	720J	290
Butylbenzylphthalate			3600U		100,000
3,3'-Dichlorobenzidine			7200U		2,000
Benzo(a)anthracene			3600U	370J	160
Chrysene			3600U	540J	220
Bis(2-Ethylhexyl)phthalate			3600U	4500	49,000
Di-n-octylphthalate			3600U		100,000

Sample ID: CRC-2-95-C-0.0 Lab ID: CRC2C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			3600U	380J	900
Benzo(k)fluoranthene			3600U		900
Benzo(a)pyrene (BaP)			3600U	360J	230
Indeno(1,2,3-cd)pyrene			3600U		900
Dibenz(a,h)anthracene			3600U		31
Benzo(g,h,i)perylene			3600U		NA
N-nitrosodimethylamine			36000U		NA
Benzidine			36000U		NA
1,2-Diphenylhydrazine			36000U		NA
Benzyl Alcohol			3600U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/15/95			
alpha-BHC			52U		NA
beta-BHC			52U		NA
delta-BHC			52U		NA
gamma-BHC (Lindane)			52U		520
Heptachlor			52U		150
Aldrin			52U		40
Heptachlor Epoxide			52U		NA
Endosulfan I			52U		50,000
Dieldrin			100U		11
4,4'-DDE			100U	71 J	2000
Endrin			100U		42
Endosulfan II			100U		50,000
4,4'-DDD (p,p'-TDE)			100U		3000
Endosulfan Sulfate			100U		50,000
4,4'-DDT			100U		2000
Methoxychlor			520U		50,000
Endrin Ketone			100U		NA
Endrin Aldehyde			100U		NA
alpha-Chlordane			52U		NA
gamma-Chlordane			52U		NA
Mirex			100U		NA
Toxaphene			1000U		100
Aroclor-1016			520U		29
Aroclor-1221			520U		29
Aroclor-1232			520U		29
Aroclor-1242			520U		29
Aroclor-1248			520U		29
Aroclor-1254			520U		29
Aroclor-1260			520U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				5,300 BN	14,000
Arsenic				19,500	8,000
Barium				258,000	700,000
Beryllium			40U		1000
Cadmium				8,000	1000
Chromium				197,000 N	33,000
Copper				165,000 N*	28,000
Lead				205,000	21,000
Mercury	5/22/95	5/31/95		850	100
Nickel				47,200	20,900
Selenium				2,500	63,000
Silver				4,400 N	500
Thallium				1,600 B	2000
Vanadium				158,000	370,000
Zinc				817,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		110,761	NA
Cyanide		5/13/95-5/19/95	1.09U		1,100
Moisture, in Percent				54.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				0.0	
Sieve #10				0.3	
Sieve #40				0.7	
Sieve #200				10	
Results in Relative %					
Silt				78.9	
Clay				10.1	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: CRC-2-95-C-4.5 Lab ID: CRC2C4 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/05/95			
Acetone			12U		100,000
Acrolein			120U		NA
Acrylonitrile			120U		1000
Benzene			12U		1000
Bromodichloromethane			12U		1000
Bromoform			12U		1000
Bromomethane			12U		1000
2-Butanone (MEK)			12U		50,000
Carbon Tetrachloride			12U		1000
2-Chloroethylvinylether			12U		NA
Chlorobenzene			12U		1000
Chloroethane			12U		NA
Chloroform			12U		1000
Chloromethane			12U		10,000
1,2-Dichloropropane			12U		10,000
1,1-Dichloroethane			12U		10,000
1,2-Dichloroethane			12U		1000
1,1-Dichloroethene			12U		8000
Dibromochloromethane			12U		1000
1,2-trans Dichloroethylene			12U		50,000
1,2-cis Dichloroethene			12U		1000
cis-1,3-Dichloropropene			12U		1000
trans-1,3-Dichloropropene			12U		1000
Ethylbenzene			12U		100,000
2-Hexanone			12U		NA
4-Methyl-2-Pentanone (MIBK)			12U		50,000
Methylene Chloride			12U	5 J	1000
Styrene			12U		23,000
Tetrachloroethylene			12U		1000
1,1,2,2-Tetrachloroethane			12U		1000
Toluene			12U		500,000
1,1,1-Trichloroethane			12U		50,000
1,1,2-Trichloroethane			12U		1000
Trichloroethene (TCE)			12U		1000
Vinyl Chloride			12U		2000
Xylenes (Total)			12U		10,000
1,1,1,2-Tetrachloroethane			12U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/20/95			
Phenol			390U		50,000
bis(2-chloroethyl)ether			390U		660
2-Chlorophenol			390U		10,000
1,3-Dichlorobenzene			390U		100,000
1,4-Dichlorobenzene			390U		100,000
1,2-Dichlorobenzene			390U		50,000
2-Methylphenol			390U		2,800,000
bis(2-chloroisopropyl)ether			390U		10,000
4-Methylphenol			390U		2,800,000
N-Nitroso-di-n-propylamine			390U		660
Hexachloroethane			390U		6,000
Nitrobenzene			390U		10,000
Isophorone			390U		50,000
2-Nitrophenol			390U		NA
2,4-Dimethylphenol			390U		NA
2,4-Dichlorophenol			390U		10,000
1,2,4-Trichlorobenzene			390U		68,000
Naphthalene			390U		100,000
4-Chloroaniline			390U		230,000
Hexachlorobutadiene			390U		1,000
bis(2-Chloroethoxy)methane			390U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			390U		100,000
Hexachlorocyclopentadiene			390U		100,000
2,4,6-Trichlorophenol			390U		10,000
2,4,5-Trichlorophenol			1900U		50,000
2-Chloronaphthalene			390U		NA
Dimethyl phthalate			390U		50,000
Acenaphthylene			390U		44
2,6-Dinitrotoluene			390U		1,000
Acenaphthene			390U		16
2,4-Dinitrophenol			1900U		10,000
4-Nitrophenol			1900U		NA
2,4-Dinitrotoluene			390U		1,000
Diethylphthalate			390U		50,000
4-Chlorophenyl-phenylether			390U		NA
Fluorene			390U		18
4,6-Dinitro-2-methylphe...			1900U		NA
N-Nitrosodiphenylamine			390U		100,000
4-Bromophenyl-phenylether			390U		NA
Hexachlorobenzene			390U		660
Pentachlorophenol			1900U		6,000
Phenanthrene			390U		NA
Anthracene			390U		85
Di-n-butylphthalate			390U		100,000
Fluoranthene			390U		380
Pyrene			390U		290
Butylbenzylphthalate			390U		100,000
3,3'-Dichlorobenzidine			780U		2,000
Benzo(a)anthracene			390U		160
Chrysene			390U		220
Bis(2-Ethylhexyl)phthalate			390U	380 J	49,000
Di-n-octylphthalate			390U		100,000
Benzo(b)fluoranthene			390U		900
Benzo(k)fluoranthene			390U		900
Benzo(a)pyrene (BaP)			390U		230
Indeno(1,2,3-cd)pyrene			390U		900
Dibenz(a,h)anthracene			390U		31
Benzo(g,h,i)perylene			390U		NA

Sample ID: CRC-2-95-C-4.5 Lab ID: CRC2C4 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
N-nitrosodimethylamine			3900U		NA
Benzidine			3900U		NA
1,2-Diphenylhydrazine			3900U		NA
Benzyl Alcohol			390U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/13/95			
alpha-BHC			9U		NA
beta-BHC			9U		NA
delta-BHC			9U		NA
gamma-BHC (Lindane)			9U		520
Heptachlor			9U		150
Aldrin			9U		40
Heptachlor Epoxide			9U		NA
Endosulfan I			9U		50,000
Dieldrin			19U		11
4,4'-DDE			19U		2,000
Endrin			19U		42
Endosulfan II			19U		50,000
4,4'-DDD (p,p'-TDE)			19U		3,000
Endosulfan Sulfate			19U		50,000
4,4'-DDT			19U		2,000
Methoxychlor			93U		50,000
Endrin Ketone			19U		NA
Endrin Aldehyde			19U		NA
alpha-Chlordane			9U		NA
gamma-Chlordane			9U		NA
Mirex			19U		NA
Toxaphene			190U		100
Aroclor-1016			93U		29
Aroclor-1221			93U		29
Aroclor-1232			93U		29
Aroclor-1242			93U		29
Aroclor-1248			93U		29
Aroclor-1254			93U		29
Aroclor-1260			93U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			410U	410 UN	14,000
Arsenic				970 B	8,000
Barium				15,600 B	700,000
Beryllium				160 B	1,000
Cadmium				80 B	1,000
Chromium				7,500 N	33,000
Copper				2,300 BN*	28,000
Lead				2,800	21,000
Mercury	5/22/95	5/31/95	120U		100
Nickel				4,700	20,900
Selenium				310 B	63,000
Silver			70U	70 UN	500
Thallium			380U		2,000
Vanadium				6,300	370,000
Zinc				16,700	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		11,372	NA
Cyanide		5/13/95-5/19/95	0.58U		1,100
Moisture, in Percent				14.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				41.4	
Sieve #200				47.4	
Results in Relative %					
Silt				6.5	
Clay				4.6	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: CRC-2-95-C-7.4 Lab ID: CRC2C7 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/05/95 and			
Acetone		05/08/95	15U		100,000
Acrolein		Cts from both run	150U		NA
Acrylonitrile		reported	150U		1000
Benzene			15U		1000
Bromodichloromethane			15U		1000
Bromoform			15U		1000
Bromomethane			15U		1000
2-Butanone (MEK)			15U		50,000
Carbon Tetrachloride			15U		1000
2-Chloroethylvinylether			15U		NA
Chlorobenzene			15U		1000
Chloroethane			15U		NA
Chloroform			15U		1000
Chloromethane			15U		10,000
1,2-Dichloropropane			15U		10,000
1,1-Dichloroethane			15U		10,000
1,2-Dichloroethane			15U		1000
1,1-Dichloroethene			15U		8000
Dibromochloromethane			15U		1000
1,2-trans Dichloroethylene			15U		50,000
1,2-cis Dichloroethene			15U		1000
cis-1,3-Dichloropropene			15U		1000
trans-1,3-Dichloropropene			15U		1000
Ethylbenzene			15U		100,000
2-Hexanone			15U		NA
4-Methyl-2-Pentanone (MIBK)			15U		50,000
Methylene Chloride			15U	4J/12JB	1000
Styrene			15U		23,000
Tetrachloroethylene			15U		1000
1,1,2,2-Tetrachloroethane			15U		1000
Toluene			15U	2J/15U	500,000
1,1,1-Trichloroethane			15U		50,000
1,1,2-Trichloroethane			15U		1000
Trichloroethene (TCE)			15U		1000
Vinyl Chloride			15U		2000
Xylenes (Total)			15U		10,000
1,1,1,2-Tetrachloroethane			15U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 1/ days to extract, 40 days to analyze	05/05/95	05/20/95			
Phenol			500U		50,000
bis(2-chloroethyl)ether			500U		660
2-Chlorophenol			500U		10,000
1,3-Dichlorobenzene			500U		100,000
1,4-Dichlorobenzene			500U		100,000
1,2-Dichlorobenzene			500U		50,000
2-Methylphenol			500U		2,800,000
bis(2-chloroisopropyl)ether			500U		10,000
4-Methylphenol			500U		2,800,000
N-Nitroso-di-n-propylamine			500U		660
Hexachloroethane			500U		6,000
Nitrobenzene			500U		10,000
Isophorone			500U		50,000
2-Nitrophenol			500U		NA
2,4-Dimethylphenol			500U		NA
2,4-Dichlorophenol			500U		10,000
1,2,4-Trichlorobenzene			500U		68,000
Naphthalene			500U		100,000
4-Chloroaniline			500U		230,000
Hexachlorobutadiene			500U		1,000
bis(2-Chloroethoxy)methane			500U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			500U		100,000
Hexachlorocyclopentadiene			500U		100,000
2,4,6-Trichlorophenol			500U		10,000
2,4,5-Trichlorophenol			2500U		50,000
2-Chloronaphthalene			500U		NA
Dimethyl phthalate			500U		50,000
Acenaphthylene			500U		44
2,6-Dinitrotoluene			500U		1,000
Acenaphthene			500U		16
2,4-Dinitrophenol			2500U		10,000
4-Nitrophenol			2500U		NA
2,4-Dinitrotoluene			500U		1,000
Diethylphthalate			500U		50,000
4-Chlorophenyl-phenylether			500U		NA
Fluorene			500U		18
4,6-Dinitro-2-methylphenol			2500U		NA
N-Nitrosodiphenylamine			500U		100,000
4-Bromophenyl-phenylether			500U		NA
Hexachlorobenzene			500U		650
Pentachlorophenol			2500U		6,000
Phenanthrene			500U		NA
Anthracene			500U		85
Di-n-butylphthalate			500U		100,000
Fluoranthene			500U		380
Pyrene			500U		290
Butylbenzylphthalate			500U		100,000
3,3'-Dichlorobenzidine			1000U		2,000
Benzo(a)anthracene			500U		160
Chrysene			500U		220
Bis(2-Ethylhexyl)phthalate			500U	61J	49,000
Di-n-octylphthalate			500U		100,000

Sample ID: CRC-2-95-C-7.4 Lab ID: CRC2C7 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			500U		900
Benzo(k)fluoranthene			500U		900
Benzo(a)pyrene (BaP)			500U	140J	230
Indeno(1,2,3-cd)pyrene			500U		900
Dibenz(a,h)anthracene			500U		31
Benzo(g,h,i)perylene			500U		NA
N-nitrosodimethylamine			5000U		NA
Benzidine			5000U		NA
1,2-Diphenylhydrazine			5000U		NA
Benzyl Alcohol			500U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/13/95			
alpha-BHC			12U		NA
beta-BHC			12U		NA
delta-BHC			12U		NA
gamma-BHC (Lindane)			12U		520
Heptachlor			12U		130
Aldrin			12U		40
Heptachlor Epoxide			12U		NA
Endosulfan I			12U		50,000
Dieldrin			24U		11
4,4'-DDE			24U		2,000
Endrin			24U		42
Endosulfan II			24U		50,000
4,4'-DDD (p,p'-TDE)			24U		3,000
Endosulfan Sulfate			24U		50,000
4,4'-DDT			24U		2,000
Methoxychlor			120U		50,000
Endrin Ketone			24U		NA
Endrin Aldehyde			24U		NA
alpha-Chlordane			12U		NA
gamma-Chlordane			12U		NA
Mirex			24U		NA
Toxaphene			240U		100
Aroclor-1016			120U		29
Aroclor-1221			120U		29
Aroclor-1232			120U		29
Aroclor-1242			120U		29
Aroclor-1248			120U		29
Aroclor-1254			120U		29
Aroclor-1260			120U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				590 BN	14,000
Arsenic				5,300	8,000
Barium				79,200	700,000
Beryllium			30U		1,000
Cadmium				190 B	1,000
Chromium				27,400 N	33,000
Copper				8,500 N*	28,000
Lead				7,300	21,000
Mercury	5/22/95	5/31/95	150U		100
Nickel				16,800	20,900
Selenium				690 B	63,000
Silver				110 BN	500
Thallium			500U		2,000
Vanadium				27,600	370,000
Zinc				44,600	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		25,652	NA
Cyanide		5/13/95-5/19/95	0.76U		1,100
Moisture, in Percent				34.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				0.0	
Sieve #10				1.8	
Sieve #40				12.2	
Sieve #200				24.1	
Results in Relative %					
Silt				35.8	
Clay				26.0	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-1-95-C-0.0 Lab ID: PAT1C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/10/95 and 05/11/95			
Acetone			17U		100,000
Acrolein			170U		NA
Acrylonitrile			170U		1000
Benzene			17U		1000
Bromodichloromethane			17U		1000
Bromoform			17U		1000
Bromomethane			17U		1000
2-Butanone (MEK)			17U		50,000
Carbon Tetrachloride			17U		1000
2-Chloroethylvinylether			17U		NA
Chlorobenzene			17U		1000
Chloroethane			17U		NA
Chloroform			17U		1000
Chloromethane			17U		10,000
1,2-Dichloropropane			17U		10,000
1,1-Dichloroethane			17U		10,000
1,2-Dichloroethane			17U		1000
1,1-Dichloroethene			17U		8000
Dibromochloromethane			17U		1000
1,2-trans Dichloroethylene			17U		50,000
1,2-cis Dichloroethene			17U		1000
cis-1,3-Dichloropropene			17U		1000
trans-1,3-Dichloropropene			17U		1000
Ethylbenzene			17U		100,000
2-Hexanone			17U		NA
4-Methyl-2-Pentanone (MIBK)			17U		50,000
Methylene Chloride			17U	11J/6JB	1000
Styrene			17U		23,000
Tetrachloroethylene			17U		1000
1,1,2,2-Tetrachloroethane			17U		1000
Toluene			17U		500,000
1,1,1-Trichloroethane			17U		50,000
1,1,2-Trichloroethane			17U		1000
Trichloroethene (TCE)			17U		1000
Vinyl Chloride			17U		2000
Xylenes (Total)			17U		10,000
1,1,1,2-Tetrachloroethane			17U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to extract	05/05/95	05/21/95			
Phenol			1100U		50,000
bis(2-chloroethyl)ether			1100U		660
2-Chlorophenol			1100U		10,000
1,3-Dichlorobenzene			1100U		100,000
1,4-Dichlorobenzene			1100U		100,000
1,2-Dichlorobenzene			1100U		50,000
2-Methylphenol			1100U		2,800,000
bis(2-chloroisopropyl)ether			1100U		10,000
4-Methylphenol			1100U	160 J	2,800,000
N-Nitroso-di-n-propylamine			1100U		660
Hexachloroethane			1100U		6,000
Nitrobenzene			1100U		10,000
Isophorone			1100U		50,000
2-Nitrophenol			1100U		NA
2,4-Dimethylphenol			1100U		NA
2,4-Dichlorophenol			1100U		10,000
1,2,4-Trichlorobenzene			1100U		68,000
Naphthalene			1100U		100,000
4-Chloroaniline			1100U		230,000
Hexachlorobutadiene			1100U		1,000
bis(2-Chloroethoxy)methane			1100U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			1100U		100,000
Hexachlorocyclopentadiene			1100U		100,000
2,4,6-Trichlorophenol			1100U		10,000
2,4,5-Trichlorophenol			1100U		50,000
2-Chloronaphthalene			5700U		NA
Dimethyl phthalate			1100U		50,000
Acenaphthylene			1100U		44
2,6-Dinitrotoluene			1100U		1,000
Acenaphthene			1100U		16
2,4-Dinitrophenol			5700U		10,000
4-Nitrophenol			5700U		NA
2,4-Dinitrotoluene			1100U		1,000
Diethylphthalate			1100U		50,000
4-Chlorophenyl-phenylether			1100U		NA
Fluorene			1100U		18
4,6-Dinitro-2-methylphenol			5700U		NA
N-Nitrosodiphenylamine			1100U		100,000
4-Bromophenyl-phenylether			1100U		NA
Hexachlorobenzene			1100U		660
Pentachlorophenol			5700U		6,000
Phenanthrene			1100U	480 J	NA
Anthracene			1100U	150 J	85
Di-n-butylphthalate			1100U		100,000
Fluoranthene			1100U	900 J	380
Pyrene			1100U	780 J	290
Butylbenzylphthalate			1100U		100,000
3,3'-Dichlorobenzidine			2300U		2,000
Benzo(a)anthracene			1100U	370 J	160
Chrysene			1100U	480 J	220
Bis(2-Ethylhexyl)phthalate			1100U	3200	49,000
Di-n-octylphthalate			1100U		100,000

Sample ID: PAT-1-95-C-0.0 Lab ID: PAT1C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			1100U	560 J	900
Benzo(k)fluoranthene			1100U	290 J	900
Benzo(a)pyrene (BaP)			1100U	400 J	230
Indeno(1,2,3-cd)pyrene			1100U	120 J	900
Dibenz(a,h)anthracene			1100U		31
Benzo(g,h,i)perylene			1100U	130 J	NA
N-nitrosodimethylamine			11000U		NA
Benzidine			11000U		NA
1,2-Diphenylhydrazine			11000U		NA
Benzyl Alcohol			1100U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to extract	05/07/95	05/15/95			
alpha-BHC			41U		NA
beta-BHC			41U		NA
delta-BHC			41U		NA
gamma-BHC (Lindane)			41U		520
Heptachlor			41U		150
Aldrin			41U		40
Heptachlor Epoxide			41U		NA
Endosulfan I			41U		50,000
Dieldrin			83U		11
4,4'-DDE			83U	150	2,000
Endrin			83U		42
Endosulfan II			83U		50,000
4,4'-DDD (p,p'-TDE)			83U		3,000
Endosulfan Sulfate			83U		50,000
4,4'-DDT			83U		2,000
Methoxychlor			410U		50,000
Endrin Ketone			83U		NA
Endrin Aldehyde			83U		NA
alpha-Chlordane			41U		NA
gamma-Chlordane			41U		NA
Mirex			83U		NA
Toxaphene			830U		100
Aroclor-1016			410U		29
Aroclor-1221			410U		29
Aroclor-1232			410U		29
Aroclor-1242			410U		29
Aroclor-1248			410U		29
Aroclor-1254			410U	190 J	29
Aroclor-1260			410U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				3,000 BN	14,000
Arsenic				14,200	8,000
Barium				143,000	700,000
Beryllium				660 B	1,000
Cadmium				5,200	1,000
Chromium				128,000 N	33,000
Copper				93,700 N*	28,000
Lead				154,000	21,000
Mercury	5/22/95	5/31/95		390	100
Nickel				32,000	20,900
Selenium				1,200	63,000
Silver				2,600 N	500
Thallium				1,300	2,000
Vanadium				66,700	370,000
Zinc				456,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		69,310	NA
Cyanide		5/13/95-5/19/95	0.86U		1,100
Moisture, in Percent				42.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				3.9	
Sieve #10				4.0	
Sieve #40				11.5	
Sieve #200				35.4	
Results in Relative %					
Silt				29.4	
Clay				15.4	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
NR - Not required
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-1-95-C-2.3 Lab ID: PATIC2 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/10/95			
Acetone			11U		100,000
Acrolein			110U		NA
Acrylonitrile			110U		1000
Benzene			11U		1000
Bromodichloromethane			11U		1000
Bromoform			11U		1000
Bromomethane			11U		1000
2-Butanone (MEK)			11U		50,000
Carbon Tetrachloride			11U		1000
2-Chloroethylvinylether			11U		NA
Chlorobenzene			11U		1000
Chloroethane			11U		NA
Chloroform			11U		1000
Chloromethane			11U		10,000
1,2-Dichloropropane			11U		10,000
1,1-Dichloroethane			11U		10,000
1,2-Dichloroethane			11U		1000
1,1-Dichloroethene			11U		8000
Dibromochloromethane			11U		1000
1,2-trans Dichloroethylene			11U		50,000
1,2-cis Dichloroethene			11U		1000
cis-1,3-Dichloropropene			11U		1000
trans-1,3-Dichloropropene			11U		1000
Ethylbenzene			11U		100,000
2-Hexanone			11U		NA
4-Methyl-2-Pentanone (MIBK)			11U		50,000
Methylene Chloride			11U	10 J	1000
Styrene			11U		23,000
Tetrachloroethylene			11U		1000
1,1,2,2-Tetrachloroethane			11U		1000
Toluene			11U		500,000
1,1,1-Trichloroethane			11U		50,000
1,1,2-Trichloroethane			11U		1000
Trichloroethene (TCE)			11U		1000
Vinyl Chloride			11U		2000
Xylenes (Total)			11U		10,000
1,1,1,2-Tetrachloroethane			11U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/21/95			
Phenol			370U		50,000
bis(2-chloroethyl)ether			370U		660
2-Chlorophenol			370U		10,000
1,3-Dichlorobenzene			370U		100,000
1,4-Dichlorobenzene			370U		100,000
1,2-Dichlorobenzene			370U		50,000
2-Methylphenol			370U		2,800,000
bis(2-chloroisopropyl)ether			370U		10,000
4-Methylphenol			370U		2,800,000
N-Nitroso-di-n-propylamine			370U		660
Hexachloroethane			370U		6,000
Nitrobenzene			370U		10,000
Isophorone			370U		50,000
2-Nitrophenol			370U		NA
2,4-Dimethylphenol			370U		NA
2,4-Dichlorophenol			370U		10,000
1,2,4-Trichlorobenzene			370U		68,000
Naphthalene			370U		100,000
4-Chloroaniline			370U		230,000
Hexachlorobutadiene			370U		1,000
bis(2-Chloroethoxy)methane			370U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			370U		100,000
Hexachlorocyclopentadiene			370U		100,000
2,4,6-Trichlorophenol			370U		10,000
2,4,5-Trichlorophenol			1800U		50,000
2-Chloronaphthalene			370U		NA
Dimethyl phthalate			370U		50,000
Acenaphthylene			370U		44
2,6-Dinitrotoluene			370U		1,000
Acenaphthene			370U		16
2,4-Dinitrophenol			1800U		10,000
4-Nitrophenol			1800U		NA
2,4-Dinitrotoluene			370U		1,000
Diethylphthalate			370U		50,000
4-Chlorophenyl-phenylether			370U		NA
Fluorene			370U		18
4,6-Dinitro-2-methylphenol			1800U		NA
N-Nitrosodiphenylamine			370U		100,000
4-Bromophenyl-phenylether			370U		NA
Hexachlorobenzene			370U		650
Pentachlorophenol			1800U		6,000
Phenanthrene			370U		NA
Anthracene			370U		85
Di-n-butylphthalate			370U		100,000
Fluoranthene			370U		380
Pyrene			370U		290
Butylbenzylphthalate			370U		100,000
3,3'-Dichlorobenzidine			730U		2,000
Benzo(a)anthracene			370U		160
Chrysene			370U		220
Bis(2-Ethylhexyl)phthalate			370U	110 J	49,000
Di-n-octylphthalate			370U		100,000

Sample ID: PAT-1-95-C-2.3 Lab ID: PAT1C2 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			370U		900
Benzo(k)fluoranthene			370U		900
Benzo(a)pyrene (BaP)			370U		230
Indeno(1,2,3-cd)pyrene			370U		900
Dibenz(a,h)anthracene			370U		31
Benzo(g,h,i)perylene			370U		NA
N-nitrosodimethylamine			3700U		NA
Benzidine			3700U		NA
1,2-Diphenylhydrazine			3700U		NA
Benzyl Alcohol			370U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/07/95	05/13/95			
alpha-BHC			9U		NA
beta-BHC			9U		NA
delta-BHC			9U		NA
gamma-BHC (Lindane)			9U		520
Heptachlor			9U		130
Aldrin			9U		40
Heptachlor Epoxide			9U		NA
Endosulfan I			9U		50,000
Dieldrin			18U		11
4,4'-DDE			18U		2,000
Endrin			18U		42
Endosulfan II			18U		50,000
4,4'-DDD (p,p'-TDE)			18U		3,000
Endosulfan Sulfate			18U		50,000
4,4'-DDT			18U		2,000
Methoxychlor			88U		50,000
Endrin Ketone			18U		NA
Endrin Aldehyde			18U		NA
alpha-Chlordane			9U		NA
gamma-Chlordane			9U		NA
Mirex			18U		NA
Toxaphene			180U		100
Aroclor-1016			88U		29
Aroclor-1221			88U		29
Aroclor-1232			88U		29
Aroclor-1242			88U		29
Aroclor-1248			88U		29
Aroclor-1254			88U		29
Aroclor-1260			88U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			520U	520 UN	14,000
Arsenic				1,200 B	8,000
Barium				11,200 B	700,000
Beryllium				260 B	1,000
Cadmium				50 B	1,000
Chromium				18,700 N	33,000
Copper				5,300 N*	28,000
Lead				3,600	21,000
Mercury			170U		100
Nickel				5,700 B	20,900
Selenium			300U		63,000
Silver				180 BN	500
Thallium			490U		2,000
Vanadium				13,200	370,000
Zinc				21,300	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		1,088	NA
Cyanide		5/13/95-5/19/95	0.55U		1,100
Moisture, in Percent				9.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				14.0	
Sieve #10				12.4	
Sieve #40				43.3	
Sieve #200				21.5	
Results in Relative %					
Silt				91.2	
Clay				8.8	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
NR - Not required
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-2-95-C-0.0 Lab ID: PAT2C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/11/95			
Acetone			20U		100,000
Acrolein			200U		NA
Acrylonitrile			200U		1000
Benzene			20U		1000
Bromodichloromethane			20U		1000
Bromoform			20U		1000
Bromomethane			20U		1000
2-Butanone (MEK)			20U		50,000
Carbon Tetrachloride			20U		1000
2-Chloroethylvinylether			20U		NA
Chlorobenzene			20U		1000
Chloroethane			20U		NA
Chloroform			20U		1000
Chloromethane			20U		10,000
1,2-Dichloropropane			20U		10,000
1,1-Dichloroethane			20U		10,000
1,2-Dichloroethane			20U		1000
1,1-Dichloroethene			20U		8000
Dibromochloromethane			20U		1000
1,2-trans Dichloroethylene			20U		50,000
1,2-cis Dichloroethene			20U		1000
cis-1,3-Dichloropropene			20U		1000
trans-1,3-Dichloropropene			20U		1000
Ethylbenzene			20U		100,000
2-Hexanone			20U		NA
4-Methyl-2-Pentanone (MIBK)			20U		50,000
Methylene Chloride			20U	8 JB	1000
Styrene			20U		23,000
Tetrachloroethylene			20U		1000
1,1,2,2-Tetrachloroethane			20U		1000
Toluene			20U	4 J	500,000
1,1,1-Trichloroethane			20U		50,000
1,1,2-Trichloroethane			20U		1000
Trichloroethene (TCE)			20U		1000
Vinyl Chloride			20U		2000
Xylenes (Total)			20U		10,000
1,1,1,2-Tetrachloroethane			20U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to extract	05/05/95	05/20/95			
Phenol			1300U		50,000
bis(2-chloroethyl)ether			1300U		660
2-Chlorophenol			1300U		10,000
1,3-Dichlorobenzene			1300U		100,000
1,4-Dichlorobenzene			1300U		100,000
1,2-Dichlorobenzene			1300U		50,000
2-Methylphenol			1300U		2,800,000
bis(2-chloroisopropyl)ether			1300U		10,000
4-Methylphenol			1300U		2,800,000
N-Nitroso-di-n-propylamine			1300U		660
Hexachloroethane			1300U		6,000
Nitrobenzene			1300U		10,000
Isophorone			1300U		50,000
2-Nitrophenol			1300U		NA
2,4-Dimethylphenol			1300U		NA
2,4-Dichlorophenol			1300U		10,000
1,2,4-Trichlorobenzene			1300U		68,000
Naphthalene			1300U		100,000
4-Chloroaniline			1300U		230,000
Hexachlorobutadiene			1300U		1,000
bis(2-Chloroethoxy)methane			1300U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			1300U		100,000
Hexachlorocyclopentadiene			1300U		100,000
2,4,6-Trichlorophenol			1300U		10,000
2,4,5-Trichlorophenol			6700U		50,000
2-Chloronaphthalene			1300U		NA
Dimethyl phthalate			1300U		50,000
Acenaphthylene			1300U		44
2,6-Dinitrotoluene			1300U		1,000
Acenaphthene			1300U		16
2,4-Dinitrophenol			6700U		10,000
4-Nitrophenol			6700U		NA
2,4-Dinitrotoluene			1300U		1,000
Diethylphthalate			1300U		50,000
4-Chlorophenyl-phenylether			1300U		NA
Fluorene			1300U		18
4,6-Dinitro-2-methylphenol			6700U		NA
N-Nitrosodiphenylamine			1300U		100,000
4-Bromophenyl-phenylether			1300U		NA
Hexachlorobenzene			1300U		660
Pentachlorophenol			6700U		6,000
Phenanthrene			1300U	270 J	NA
Anthracene			1300U		85
Di-n-butylphthalate			1300U		100,000
Fluoranthene			1300U	540 J	380
Pyrene			1300U	490 J	290
Butylbenzylphthalate			1300U		100,000
3,3'-Dichlorobenzidine			2700U		2,000
Benzo(a)anthracene			1300U	250 J	160
Chrysene			1300U	340 J	220
Bis(2-Ethylhexyl)phthalate			1300U	3000	49,000
Di-n-octylphthalate			1300U		100,000

Sample ID: PAT-2-95-C-0.0 Lab ID: PAT2C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			1300U	380 J	900
Benzo(k)fluoranthene			1300U	310 J	900
Benzo(a)pyrene (BaP)			1300U	290 J	230
Indeno(1,2,3-cd)pyrene			1300U		900
Dibenz(a,h)anthracene			1300U		31
Benzo(g,h,i)perylene			1300U		NA
N-nitrosodimethylamine			13000U		NA
Benzidine			13000U		NA
1,2-Diphenylhydrazine			13000U		NA
Benzyl Alcohol			1300U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to extract	05/07/95	05/13/95			
alpha-BHC			48U		NA
beta-BHC			48U		NA
delta-BHC			48U		NA
gamma-BHC (Lindane)			48U		520
Heptachlor			48U		130
Aldrin			48U		40
Heptachlor Epoxide			48U		NA
Endosulfan I			48U		50,000
Dieldrin			96U		11
4,4'-DDE			96U	72 J	2,000
Endrin			96U		42
Endosulfan II			96U		50,000
4,4'-DDD (p,p'-TDE)			96U		3,000
Endosulfan Sulfate			96U		50,000
4,4'-DDT			96U		2,000
Methoxychlor			480U		50,000
Endrin Ketone			96U		NA
Endrin Aldehyde			96U		NA
alpha-Chlordane			48U		NA
gamma-Chlordane			48U		NA
Mirex			96U		NA
Toxaphene			960U		100
Aroclor-1016			480U		29
Aroclor-1221			480U		29
Aroclor-1232			480U		29
Aroclor-1242			480U		29
Aroclor-1248			480U		29
Aroclor-1254			480U		29
Aroclor-1260			480U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				2,900 BN	14,000
Arsenic				12,200	8,000
Barium				180,000	700,000
Beryllium				540 B	1,000
Cadmium				4,300	1,000
Chromium				88,800 N	33,000
Copper				99,700 N*	28,000
Lead				118,000	21,000
Mercury	5/22/95	5/31/95		550	100
Nickel				32,700	20,900
Selenium				1,100	63,000
Silver				3,000 N	500
Thallium				2,200	2,000
Vanadium				52,100	370,000
Zinc				467,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		78,000	NA
Cyanide		5/13/95/19/95	1.00U		1,100
Moisture, in Percent				50.00	NA
GRAIN SIZE:					
Results in % Recovery					
Sieve #4		5/24/95, 5/25/95		0.0	
Sieve #10				0.0	
Sieve #40				1.2	
Sieve #200				22.3	
Results in Relative %					
Silt				62.5	
Clay				14.0	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-2-95-C-0.0-D Lab ID: PAT2CD Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/10/95 and 05/11/95			
Acetone			20U		100,000
Acrolein		hits from both run	200U		NA
Acrylonitrile		reported	200U		1000
Benzene			20U		1000
Bromodichloromethane			20U		1000
Bromoform			20U		1000
Bromomethane			20U		1000
2-Butanone (MEK)			20U		50,000
Carbon Tetrachloride			20U		1000
2-Chloroethylvinylether			20U		NA
Chlorobenzene			20U		1000
Chloroethane			20U		NA
Chloroform			20U		1000
Chloromethane			20U		10,000
1,2-Dichloropropane			20U		10,000
1,1-Dichloroethane			20U		10,000
1,2-Dichloroethane			20U		1000
1,1-Dichloroethene			20U		8000
Dibromochloromethane			20U		1000
1,2-trans Dichloroethylene			20U		50,000
1,2-cis Dichloroethene			20U		1000
cis-1,3-Dichloropropene			20U		1000
trans-1,3-Dichloropropene			20U		1000
Ethylbenzene			20U		100,000
2-Hexanone			20U		NA
4-Methyl-2-Pentanone (MIBK)			20U		50,000
Methylene Chloride			20U	22/11JB	1000
Styrene			20U		23,000
Tetrachloroethylene			20U		1000
1,1,2,2-Tetrachloroethane			20U		1000
Toluene			20U	4J/3J	500,000
1,1,1-Trichloroethane			20U		50,000
1,1,2-Trichloroethane			20U		1000
Trichloroethene (TCE)			20U		1000
Vinyl Chloride			20U		2000
Xylenes (Total)			20U		10,000
1,1,1,2-Tetrachloroethane			20U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/21/95			
Phenol			1300U		50,000
bis(2-chloroethyl)ether			1300U		660
2-Chlorophenol			1300U		10,000
1,3-Dichlorobenzene			1300U		100,000
1,4-Dichlorobenzene			1300U		100,000
1,2-Dichlorobenzene			1300U		50,000
2-Methylphenol			1300U		2,800,000
bis(2-chloroisopropyl)ether			1300U		10,000
4-Methylphenol			1300U	250 J	2,800,000
N-Nitroso-di-n-propylamine			1300U		660
Hexachloroethane			1300U		6,000
Nitrobenzene			1300U		10,000
Isophorone			1300U		50,000
2-Nitrophenol			1300U		NA
2,4-Dimethylphenol			1300U		NA
2,4-Dichlorophenol			1300U		10,000
1,2,4-Trichlorobenzene			1300U		68,000
Naphthalene			1300U		100,000
4-Chloroaniline			1300U		230,000
Hexachlorobutadiene			1300U		1,000
bis(2-Chloroethoxy)methane			1300U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			1300U		100,000
Hexachlorocyclopentadiene			1300U		100,000
2,4,6-Trichlorophenol			1300U		10,000
2,4,5-Trichlorophenol			6500U		50,000
2-Chloronaphthalene			1300U		NA
Dimethyl phthalate			1300U		50,000
Acenaphthylene			1300U		44
2,6-Dinitrotoluene			1300U		1,000
Acenaphthene			1300U		16
2,4-Dinitrophenol			6500U		10,000
4-Nitrophenol			6500U		NA
2,4-Dinitrotoluene			1300U		1,000
Diethylphthalate			1300U		50,000
4-Chlorophenyl-phenylether			1300U		NA
Fluorene			1300U		18
4,6-Dinitro-2-methylphenol			6500U		NA
N-Nitrosodiphenylamine			1300U		100,000
4-Bromophenyl-phenylether			1300U		NA
Hexachlorobenzene			1300U		660
Pentachlorophenol			6500U		6,000
Phenanthrene			1300U	370 J	NA
Anthracene			1300U		85
Di-n-butylphthalate			1300U		100,000
Fluoranthene			1300U	760 J	380
Pyrene			1300U	650 J	290
Butylbenzylphthalate			1300U		100,000
3,3'-Dichlorobenzidine			2600U		2,000
Benzo(a)anthracene			1300U	340 J	160
Chrysene			1300U	460 J	220
Bis(2-Ethylhexyl)phthalate			1300U	3200	49,000
Di-n-octylphthalate			1300U		100,000

Sample ID: PAT-2-95-C-0.0-D Lab ID: PAT2CD Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			1300U	500 J	900
Benzo(k)fluoranthene			1300U	450 J	900
Benzo(a)pyrene (BaP)			1300U	400 J	230
Indeno(1,2,3-cd)pyrene			1300U		900
Dibenz(a,h)anthracene			1300U		31
Benzo(g,h,i)perylene			1300U	140 J	NA
N-nitrosodimethylamine			13000U		NA
Benzidine			13000U		NA
1,2-Diphenylhydrazine			13000U		NA
Benzyl Alcohol			1300U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/07/95	05/15/95			
alpha-BHC			47U		NA
beta-BHC			47U		NA
delta-BHC			47U		NA
gamma-BHC (Lindane)			47U		520
Heptachlor			47U		150
Aldrin			47U		40
Heptachlor Epoxide			47U		NA
Endosulfan I			47U		50,000
Dieldrin			94U		11
4,4'-DDE			94U	82 J	2,000
Endrin			94U		42
Endosulfan II			94U		50,000
4,4'-DDD (p,p'-TDE)			94U		3,000
Endosulfan Sulfate			94U		50,000
4,4'-DDT			94U	63 J	2,000
Methoxychlor			470U		50,000
Endrin Ketone			94U		NA
Endrin Aldehyde			94U		NA
alpha-Chlordane			47U		NA
gamma-Chlordane			47U		NA
Mirex			94U		NA
Toxaphene			940U		100
Aroclor-1016			470U		29
Aroclor-1221			470U		29
Aroclor-1232			470U		29
Aroclor-1242			470U		29
Aroclor-1248			470U		29
Aroclor-1254			470U		29
Aroclor-1260			470U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,900 BN	14,000
Arsenic				9,500	8,000
Barium				156,000	700,000
Beryllium				710 B	1,000
Cadmium				2,900	1,000
Chromium				59,900 N	33,000
Copper				67,000 N*	28,000
Lead				88,600	21,000
Mercury	5/22/95	5/31/95		500	100
Nickel				28,300	20,900
Selenium				1,100	63,000
Silver				3,900 N	500
Thallium				2,000	2,000
Vanadium				43,600	370,000
Zinc				368,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		90,294	NA
Cyanide		5/13/95-5/19/95	0.98U		1,100
Moisture, in Percent			NR		NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4			NR		
Sieve #10			NR		
Sieve #40			NR		
Sieve #200			NR		
Results in Relative %					
Silt			NR		
Clay			NR		

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
NR - Not required
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-2-95-C-6.8 Lab ID: PAT2C6 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/11/95			
Acetone			11U		100,000
Acrolein			110U		NA
Acrylonitrile			110U		1000
Benzene			11U		1000
Bromodichloromethane			11U		1000
Bromoform			11U		1000
Bromomethane			11U		1000
2-Butanone (MEK)			11U		50,000
Carbon Tetrachloride			11U		1000
2-Chloroethylvinylether			11U		NA
Chlorobenzene			11U		1000
Chloroethane			11U		NA
Chloroform			11U		1000
Chloromethane			11U		10,000
1,2-Dichloropropane			11U		10,000
1,1-Dichloroethane			11U		10,000
1,2-Dichloroethane			11U		1000
1,1-Dichloroethene			11U		8000
Dibromochloromethane			11U		1000
1,2-trans Dichloroethylene			11U		50,000
1,2-cis Dichloroethene			11U		1000
cis-1,3-Dichloropropene			11U		1000
trans-1,3-Dichloropropene			11U		1000
Ethylbenzene			11U		100,000
2-Hexanone			11U		NA
4-Methyl-2-Pentanone (MIBK)			11U		50,000
Methylene Chloride			11U	4 JB	1000
Styrene			11U		23,000
Tetrachloroethylene			11U		1000
1,1,2,2-Tetrachloroethane			11U		1000
Toluene			11U		500,000
1,1,1-Trichloroethane			11U		50,000
1,1,2-Trichloroethane			11U		1000
Trichloroethene (TCE)			11U		1000
Vinyl Chloride			11U		2000
Xylenes (Total)			11U		10,000
1,1,1,2-Tetrachloroethane			11U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to extract	05/05/95	05/21/95			
Phenol			380U	100 J	50,000
bis(2-chloroethyl)ether			380U		660
2-Chlorophenol			380U		10,000
1,3-Dichlorobenzene			380U		100,000
1,4-Dichlorobenzene			380U		100,000
1,2-Dichlorobenzene			380U		50,000
2-Methylphenol			380U		2,800,000
bis(2-chloroisopropyl)ether			380U		10,000
4-Methylphenol			380U		2,800,000
N-Nitroso-di-n-propylamine			380U		660
Hexachloroethane			380U		6,000
Nitrobenzene			380U		10,000
Isophorone			380U		50,000
2-Nitrophenol			380U		NA
2,4-Dimethylphenol			380U		NA
2,4-Dichlorophenol			380U		10,000
1,2,4-Trichlorobenzene			380U		68,000
Naphthalene			380U		100,000
4-Chloroaniline			380U		230,000
Hexachlorobutadiene			380U		1,000
bis(2-Chloroethoxy)methane			380U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			380U		100,000
Hexachlorocyclopentadiene			380U		100,000
2,4,6-Trichlorophenol			380U		10,000
2,4,5-Trichlorophenol			1900U		50,000
2-Chloronaphthalene			380U		NA
Dimethyl phthalate			380U		50,000
Acenaphthylene			380U		44
2,6-Dinitrotoluene			380U		1,000
Acenaphthene			380U		16
2,4-Dinitrophenol			1900U		10,000
4-Nitrophenol			1900U		NA
2,4-Dinitrotoluene			380U		1,000
Diethylphthalate			380U		50,000
4-Chlorophenyl-phenylether			380U		NA
Fluorene			380U		18
4,6-Dinitro-2-methylphenol			1900U		NA
N-Nitrosodiphenylamine			380U		100,000
4-Bromophenyl-phenylether			380U		NA
Hexachlorobenzene			380U		660
Pentachlorophenol			1900U		6,000
Phenanthrene			380U	85 J	NA
Anthracene			380U		85
Di-n-butylphthalate			380U		100,000
Fluoranthene			380U	78 J	380
Pyrene			380U	68 J	290
Butylbenzylphthalate			380U		100,000
3,3'-Dichlorobenzidine			770U		2,000
Benzo(a)anthracene			380U		160
Chrysene			380U	43 J	220
Bis(2-Ethylhexyl)phthalate			380U	240 J	49,000
Di-n-octylphthalate			380U		100,000

Sample ID: PAT-2-95-C-6.8 Lab ID: PAT2C6 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			380U	55 J	900
Benzo(k)fluoranthene			380U	41 J	900
Benzo(a)pyrene (BaP)			380U	41 J	230
Indeno(1,2,3-cd)pyrene			380U		900
Dibenz(a,h)anthracene			380U		31
Benzo(g,h,i)perylene			380U		NA
N-nitrosodimethylamine			3800U		NA
Benzidine			3800U		NA
1,2-Diphenylhydrazine			3800U		NA
Benzyl Alcohol			380U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to extract	05/07/95	05/24/95			
alpha-BHC			9U		NA
beta-BHC			9U		NA
delta-BHC			9U		NA
gamma-BHC (Lindane)			9U		520
Heptachlor			9U		150
Aldrin			9U		40
Heptachlor Epoxide			9U		NA
Endosulfan I			9U		50,000
Dieldrin			18U		11
4,4'-DDE			18U		2,000
Endrin			18U		42
Endosulfan II			18U		50,000
4,4'-DDD (p,p'-TDE)			18U		3,000
Endosulfan Sulfate			18U		50,000
4,4'-DDT			18U		2,000
Methoxychlor			92U		50,000
Endrin Ketone			18U		NA
Endrin Aldehyde			18U		NA
alpha-Chlordane			9U		NA
gamma-Chlordane			9U		NA
Mirex			18U		NA
Toxaphene			180U		100
Aroclor-1016			92U		29
Aroclor-1221			92U		29
Aroclor-1232			92U		29
Aroclor-1242			92U		29
Aroclor-1248			92U		29
Aroclor-1254			92U		29
Aroclor-1260			92U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			370U	370 UN	14,000
Arsenic				820 B	8,000
Barium				12,000 B	700,000
Beryllium				140 B	1,000
Cadmium			30U		1,000
Chromium				6,000 N	33,000
Copper				1,900 BN*	28,000
Lead				2,900	21,000
Mercury	5/22/95	5/31/95	110U		100
Nickel				4,700	20,900
Selenium			210U		63,000
Silver			60U	60 UN	500
Thallium			350U		2,000
Vanadium				5,300	370,000
Zinc				18,100	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		11,333	NA
Cyanide		5/13/95-5/19/95	0.57U		1,100
Moisture, in Percent				13.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				17.1	
Sieve #10				7.2	
Sieve #40				27.2	
Sieve #200				4.35	
Results in Relative %					
Silt				4.3	
Clay				0.7	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
NR - Not required
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-3-95-C-0.0 Lab ID: PAT3C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/10/95			
Acetone			19U		100,000
Acrolein			190U		NA
Acrylonitrile			190U		1000
Benzene			19U		1000
Bromodichloromethane			19U		1000
Bromoform			19U		1000
Bromomethane			19U		1000
2-Butanone (MEK)			19U		50,000
Carbon Tetrachloride			19U		1000
2-Chloroethylvinylether			19U		NA
Chlorobenzene			19U		1000
Chloroethane			19U		NA
Chloroform			19U		1000
Chloromethane			19U		10,000
1,2-Dichloropropane			19U		10,000
1,1-Dichloroethane			19U		10,000
1,2-Dichloroethane			19U		1000
1,1-Dichloroethene			19U		8000
Dibromochloromethane			19U		1000
1,2-trans Dichloroethylene			19U		50,000
1,2-cis Dichloroethene			19U		1000
cis-1,3-Dichloropropene			19U		1000
trans-1,3-Dichloropropene			19U		1000
Ethylbenzene			19U		100,000
2-Hexanone			19U		NA
4-Methyl-2-Pentanone (MIBK)			19U		50,000
Methylene Chloride			19U	13 J	1000
Styrene			19U		23,000
Tetrachloroethylene			19U		1000
1,1,2,2-Tetrachloroethane			19U		1000
Toluene			19U	6 J	500,000
1,1,1-Trichloroethane			19U		50,000
1,1,2-Trichloroethane			19U		1000
Trichloroethene (TCE)			19U		1000
Vinyl Chloride			19U		2000
Xylenes (Total)			19U		10,000
1,1,1,2-Tetrachloroethane			19U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to extract	05/05/95	05/20/95			
Phenol			1300U		50,000
bis(2-chloroethyl)ether			1300U		660
2-Chlorophenol			1300U		10,000
1,3-Dichlorobenzene			1300U		100,000
1,4-Dichlorobenzene			1300U		100,000
1,2-Dichlorobenzene			1300U		50,000
2-Methylphenol			1300U		2,800,000
bis(2-chloroisopropyl)ether			1300U		10,000
4-Methylphenol			1300U		2,800,000
N-Nitroso-di-n-propylamine			1300U		660
Hexachloroethane			1300U		6,000
Nitrobenzene			1300U		10,000
Isophorone			1300U		50,000
2-Nitrophenol			1300U		NA
2,4-Dimethylphenol			1300U		NA
2,4-Dichlorophenol			1300U		10,000
1,2,4-Trichlorobenzene			1300U		68,000
Naphthalene			1300U		100,000
4-Chloroaniline			1300U		230,000
Hexachlorobutadiene			1300U		1,000
bis(2-Chloroethoxy)methane			1300U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			1300U		100,000
Hexachlorocyclopentadiene			1300U		100,000
2,4,6-Trichlorophenol			1300U		10,000
2,4,5-Trichlorophenol			6400U		50,000
2-Chloronaphthalene			1300U		NA
Dimethyl phthalate			1300U		50,000
Acenaphthylene			1300U		44
2,6-Dinitrotoluene			1300U		1,000
Acenaphthene			1300U		16
2,4-Dinitrophenol			6400U		10,000
4-Nitrophenol			6400U		NA
2,4-Dinitrotoluene			1300U		1,000
Diethylphthalate			1300U		50,000
4-Chlorophenyl-phenylether			1300U		NA
Fluorene			1300U		18
4,6-Dinitro-2-methylphenol			6400U		NA
N-Nitrosodiphenylamine			1300U		100,000
4-Bromophenyl-phenylether			1300U		NA
Hexachlorobenzene			1300U		660
Pentachlorophenol			6400U		6,000
Phenanthrene			1300U	200 J	NA
Anthracene			1300U		85
Di-n-butylphthalate			1300U		100,000
Fluoranthene			1300U	390 J	380
Pyrene			1300U	410 J	290
Butylbenzylphthalate			1300U		100,000
3,3'-Dichlorobenzidine			2600U		2,000
Benzo(a)anthracene			1300U	210 J	160
Chrysene			1300U	260 J	220
Bis(2-Ethylhexyl)phthalate			1300U	1400	49,000
Di-n-octylphthalate			1300U		100,000

Sample ID: PAT-3-95-C-0.0 Lab ID: PAT3C0 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			1300U	280 J	900
Benzo(k)fluoranthene			1300U	180 J	900
Benzo(a)pyrene (BaP)			1300U	230 J	230
Indeno(1,2,3-cd)pyrene			1300U	130 J	900
Dibenz(a,h)anthracene			1300U		31
Benzo(g,h,i)perylene			1300U	150 J	NA
N-nitrosodimethylamine			13000U		NA
Benzidine			13000U		NA
1,2-Diphenylhydrazine			13000U		NA
Benzyl Alcohol			1300U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to extract	05/07/95	05/15/95			
alpha-BHC			46U		NA
beta-BHC			46U		NA
delta-BHC			46U		NA
gamma-BHC (Lindane)			46U		520
Heptachlor			46U		150
Aldrin			46U		40
Heptachlor Epoxide			46U		NA
Endosulfan I			46U		50,000
Dieldrin			92U		11
4,4'-DDE			92U	72 J	2,000
Endrin			92U		42
Endosulfan II			92U		50,000
4,4'-DDD (p,p'-TDE)			92U		3,000
Endosulfan Sulfate			92U		50,000
4,4'-DDT			92U		2,000
Methoxychlor			460U		50,000
Endrin Ketone			92U		NA
Endrin Aldehyde			92U		NA
alpha-Chlordane			46U		NA
gamma-Chlordane			46U		NA
Mirex			92U		NA
Toxaphene			920U		100
Aroclor-1016			460U		29
Aroclor-1221			460U		29
Aroclor-1232			460U		29
Aroclor-1242			460U		29
Aroclor-1248			460U		29
Aroclor-1254			460U		29
Aroclor-1260			460U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				2,400 BN	14,000
Arsenic				9,500	8,000
Barium				168,000	700,000
Beryllium				690 B	1,000
Cadmium				3,300	1,000
Chromium				60,000 N	33,000
Copper				104,000 N*	28,000
Lead				94,500	21,000
Mercury	5/22/95	5/31/95		440	100
Nickel				31,000	20,900
Selenium				1,300	63,000
Silver				2,400 N	500
Thallium				2,100	2,000
Vanadium				38,300	370,000
Zinc				400,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		49,904	NA
Cyanide		5/13/95-5/19/95	0.96U		1,100
Moisture, in Percent				48.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				0.9	
Sieve #200				25	
Results in Relative %					
Silt				65.0	
Clay				9.1	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-3-95-C-6.25 Lab ID: PAT3C6 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/11/95			
Acetone			16U	35	100,000
Acrolein			160U		NA
Acrylonitrile			160U		1000
Benzene			16U		1000
Bromodichloromethane			16U		1000
Bromoform			16U		1000
Bromomethane			16U		1000
2-Butanone (MEK)			16U		50,000
Carbon Tetrachloride			16U		1000
2-Chloroethylvinylether			16U		NA
Chlorobenzene			16U		1000
Chloroethane			16U		NA
Chloroform			16U		1000
Chloromethane			16U		10,000
1,2-Dichloropropane			16U		10,000
1,1-Dichloroethane			16U		10,000
1,2-Dichloroethane			16U		1000
1,1-Dichloroethene			16U		8000
Dibromochloromethane			16U		1000
1,2-trans Dichloroethylene			16U		50,000
1,2-cis Dichloroethene			16U		1000
cis-1,3-Dichloropropene			16U		1000
trans-1,3-Dichloropropene			16U		1000
Ethylbenzene			16U		100,000
2-Hexanone			16U		NA
4-Methyl-2-Pentanone (MIBK)			16U		50,000
Methylene Chloride			16U	7 JB	1000
Styrene			16U		23,000
Tetrachloroethylene			16U		1000
1,1,2,2-Tetrachloroethane			16U		1000
Toluene			16U		500,000
1,1,1-Trichloroethane			16U		50,000
1,1,2-Trichloroethane			16U		1000
Trichloroethene (TCE)			16U		1000
Vinyl Chloride			16U		2000
Xylenes (Total)			16U		10,000
1,1,1,2-Tetrachloroethane			16U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/20/95			
Phenol			520U		50,000
bis(2-chloroethyl)ether			520U		660
2-Chlorophenol			520U		10,000
1,3-Dichlorobenzene			520U		100,000
1,4-Dichlorobenzene			520U		100,000
1,2-Dichlorobenzene			520U		50,000
2-Methylphenol			520U		2,800,000
bis(2-chloroisopropyl)ether			520U		10,000
4-Methylphenol			520U		2,800,000
N-Nitroso-di-n-propylamine			520U		660
Hexachloroethane			520U		6,000
Nitrobenzene			520U		10,000
Isophorone			520U		50,000
2-Nitrophenol			520U		NA
2,4-Dimethylphenol			520U		NA
2,4-Dichlorophenol			520U		10,000
1,2,4-Trichlorobenzene			520U		68,000
Naphthalene			520U		100,000
4-Chloroaniline			520U		230,000
Hexachlorobutadiene			520U		1,000
bis(2-Chloroethoxy)methane			520U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			520U		100,000
Hexachlorocyclopentadiene			520U		100,000
2,4,6-Trichlorophenol			520U		10,000
2,4,5-Trichlorophenol			2600U		50,000
2-Chloronaphthalene			520U		NA
Dimethyl phthalate			520U		50,000
Acenaphthylene			520U		44
2,6-Dinitrotoluene			520U		1,000
Acenaphthene			520U		16
2,4-Dinitrophenol			2600U		10,000
4-Nitrophenol			2600U		NA
2,4-Dinitrotoluene			520U		1,000
Diethylphthalate			520U		50,000
4-Chlorophenyl-phenylether			520U		NA
Fluorene			520U		18
4,6-Dinitro-2-methylphenol			2600U		NA
N-Nitrosodiphenylamine			520U		100,000
4-Bromophenyl-phenylether			520U		NA
Hexachlorobenzene			520U		660
Pentachlorophenol			2600U		6,000
Phenanthrene			520U		NA
Anthracene			520U		85
Di-n-butylphthalate			520U		100,000
Fluoranthene			520U		380
Pyrene			520U		290
Butylbenzylphthalate			520U		100,000
3,3'-Dichlorobenzidine			1000U		2,000
Benzo(a)anthracene			520U		160
Chrysene			520U		220
Bis(2-Ethylhexyl)phthalate			520U		49,000
Di-n-octylphthalate			520U		100,000

Sample ID: PAT-3-95-C-6.25 Lab ID: PAT3C6 Sampling Date: 5/1/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			520U		900
Benzo(k)fluoranthene			520U		900
Benzo(a)pyrene (BaP)			520U	170 J	230
Indeno(1,2,3-cd)pyrene			520U		900
Dibenz(a,h)anthracene			520U		31
Benzo(g,h,i)perylene			520U		NA
N-nitrosodimethylamine			5200U		NA
Benzidine			5200U		NA
1,2-Diphenylhydrazine			5200U		NA
Benzyl Alcohol			520U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/07/95	05/13/95			
alpha-BHC			13U		NA
beta-BHC			13U		NA
delta-BHC			13U		NA
gamma-BHC (Lindane)			13U		520
Heptachlor			13U		150
Aldrin			13U		40
Heptachlor Epoxide			13U		NA
Endosulfan I			13U		50,000
Dieldrin			25U		11
4,4'-DDE			25U		2,000
Endrin			25U		42
Endosulfan II			25U		50,000
4,4'-DDD (p,p'-TDE)			25U		3,000
Endosulfan Sulfate			25U		50,000
4,4'-DDT			25U		2,000
Methoxychlor			130U		50,000
Endrin Ketone			25U		NA
Endrin Aldehyde			25U		NA
alpha-Chlordane			13U		NA
gamma-Chlordane			13U		NA
Mirex			25U		NA
Toxaphene			250U		100
Aroclor-1016			130U		29
Aroclor-1221			130U		29
Aroclor-1232			130U		29
Aroclor-1242			130U		29
Aroclor-1248			130U		29
Aroclor-1254			130U		29
Aroclor-1260			130U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				740 BN	14,000
Arsenic				7,000	8,000
Barium				110,000	700,000
Beryllium			30U		1,000
Cadmium				140 B	1,000
Chromium				31,100 N	33,000
Copper				10,300 N*	28,000
Lead				9,100	21,000
Mercury	5/22/95	5/31/95	160U		100
Nickel				20,000	20,900
Selenium				450 B	63,000
Silver				120 BN	500
Thallium				1,300 B	2,000
Vanadium				29,300	370,000
Zinc				50,800	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		48,563	NA
Cyanide		5/13/95-5/19/95	0.78U		1,100
Moisture, in Percent				36.00	NA
GEOTECHNICAL TESTING:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				17.6	
Sieve #10				0.9	
Sieve #40				8.5	
Sieve #200				19.0	
Results in Relative %					
Silt				36.2	
Clay				18.1	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-4-95-C-0.0 Lab ID: PAT4C0 Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/05/95 and			
Acetone		05/08/95	15U		100,000
Acrolein		hits from both run	150U		NA
Acrylonitrile		reported	150U		1000
Benzene			15U		1000
Bromodichloromethane			15U		1000
Bromoform			15U		1000
Bromomethane			15U		1000
2-Butanone (MEK)			15U		50,000
Carbon Tetrachloride			15U		1000
2-Chloroethylvinylether			15U		NA
Chlorobenzene			15U		1000
Chloroethane			15U		NA
Chloroform			15U		1000
Chloromethane			15U		10,000
1,2-Dichloropropane			15U		10,000
1,1-Dichloroethane			15U		10,000
1,2-Dichloroethane			15U		1000
1,1-Dichloroethene			15U		8000
Dibromochloromethane			15U		1000
1,2-trans Dichloroethylene			15U		50,000
1,2-cis Dichloroethene			15U		1000
cis-1,3-Dichloropropene			15U		1000
trans-1,3-Dichloropropene			15U		1000
Ethylbenzene			15U		100,000
2-Hexanone			15U		NA
4-Methyl-2-Pentanone (MIBK)			15U		50,000
Methylene Chloride			15U	5J/15U	1000
Styrene			15U		23,000
Tetrachloroethylene			15U		1000
1,1,2,2-Tetrachloroethane			15U		1000
Toluene			15U	3J/15U	500,000
1,1,1-Trichloroethane			15U		50,000
1,1,2-Trichloroethane			15U		1000
Trichloroethene (TCE)			15U		1000
Vinyl Chloride			15U		2000
Xylenes (Total)			15U		10,000
1,1,1,2-Tetrachloroethane			15U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/20/95			
Phenol			490U	3100	50,000
bis(2-chloroethyl)ether			490U		660
2-Chlorophenol			490U	2200	10,000
1,3-Dichlorobenzene			490U		100,000
1,4-Dichlorobenzene			490U	1400	100,000
1,2-Dichlorobenzene			490U		50,000
2-Methylphenol			490U		2,800,000
bis(2-chloroisopropyl)ether			490U		10,000
4-Methylphenol			490U		2,800,000
N-Nitroso-di-n-propylamine			490U	1400	660
Hexachloroethane			490U		6,000
Nitrobenzene			490U		10,000
Isophorone			490U		50,000
2-Nitrophenol			490U		NA
2,4-Dimethylphenol			490U		NA
2,4-Dichlorophenol			490U		10,000
1,2,4-Trichlorobenzene			490U	1400	68,000
Naphthalene			490U		100,000
4-Chloroaniline			490U		220,000
Hexachlorobutadiene			490U		1,000
bis(2-Chloroethoxy)methane			490U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			490U	2900	100,000
Hexachlorocyclopentadiene			490U		100,000
2,4,6-Trichlorophenol			490U		10,000
2,4,5-Trichlorophenol			2400U		50,000
2-Chloronaphthalene			490U		NA
Dimethyl phthalate			490U		50,000
Acenaphthylene			490U		44
2,6-Dinitrotoluene			490U		1,000
Acenaphthene			490U	1600	16
2,4-Dinitrophenol			2400U		10,000
4-Nitrophenol			2400U	3100	NA
2,4-Dinitrotoluene			490U	1800	1,000
Diethylphthalate			490U		50,000
4-Chlorophenyl-phenylether			490U		NA
Fluorene			490U		18
4,6-Dinitro-2-methylphenol			2400U		NA
N-Nitrosodiphenylamine			490U		100,000
4-Bromophenyl-phenylether			490U		NA
Hexachlorobenzene			490U		660
Pentachlorophenol			2400U	3500	6,000
Phenanthrene			490U		NA
Anthracene			490U		85
Di-n-butylphthalate			490U		100,000
Fluoranthene			490U		380
Pyrene			490U	2100	290
Butylbenzylphthalate			490U		100,000
3,3'-Dichlorobenzidine			980U		2,000
Benzo(a)anthracene			490U		160
Chrysene			490U		220
Bis(2-Ethylhexyl)phthalate			490U		49,000
Di-n-octylphthalate			490U		100,000

Sample ID: PAT-4-95-C-0.0 Lab ID: PAT4C0 Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			490U		900
Benzo(k)fluoranthene			490U		900
Benzo(a)pyrene (BaP)			490U		230
Indeno(1,2,3-cd)pyrene			490U		900
Dibenz(a,h)anthracene			490U		31
Benzo(g,h,i)perylene			490U		NA
N-nitrosodimethylamine			4900U		NA
Benzidine			4900U		NA
1,2-Diphenylhydrazine			4900U		NA
Benzyl Alcohol			490U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/05/95	05/14/95			
alpha-BHC			24U		NA
beta-BHC			24U		NA
delta-BHC			24U		NA
gamma-BHC (Lindane)			24U		520
Heptachlor			24U		130
Aldrin			24U		40
Heptachlor Epoxide			24U		NA
Endosulfan I			24U		50,000
Dieldrin			47U		11
4,4'-DDE			47U		2,000
Endrin			47U		42
Endosulfan II			47U		50,000
4,4'-DDD (p,p'-TDE)			47U		3,000
Endosulfan Sulfate			47U		50,000
4,4'-DDT			47U		2,000
Methoxychlor			240U		50,000
Endrin Ketone			47U		NA
Endrin Aldehyde			47U		NA
alpha-Chlordane			24U		NA
gamma-Chlordane			24U		NA
Mirex			47U		NA
Toxaphene			470U		100
Aroclor-1016			240U		29
Aroclor-1221			240U		29
Aroclor-1232			240U		29
Aroclor-1242			240U		29
Aroclor-1248			240U		29
Aroclor-1254			240U		29
Aroclor-1260			240U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				830 BN	14,000
Arsenic				4,400	8,000
Barium				99,700	700,000
Beryllium			30U		1,000
Cadmium				210 B	1,000
Chromium				28,700 N	33,000
Copper				9,400 N*	28,000
Lead				8,200	21,000
Mercury	5/22/95	5/31/95	150U		100
Nickel				18,500	20,900
Selenium				880	63,000
Silver				510 BN	500
Thallium				1,400 B	2,000
Vanadium				26,900	370,000
Zinc				55,200	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		40,868	NA
Cyanide		5/13/95-5/19/95	0.74U		1,100
Moisture, in Percent				32.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				0.9	
Sieve #200				13.2	
Results in Relative %					
Silt				77.1	
Clay				8.8	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: PAT-4-95-C-5.0 Lab ID: PAT4C5 Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/08/95			
Acetone			15U		100,000
Acrolein			150U		NA
Acrylonitrile			150U		1000
Benzene			15U		1000
Bromodichloromethane			15U		1000
Bromoform			15U		1000
Bromomethane			15U		1000
2-Butanone (MEK)			15U		50,000
Carbon Tetrachloride			15U		1000
2-Chloroethylvinylether			15U		NA
Chlorobenzene			15U		1000
Chloroethane			15U		NA
Chloroform			15U		1000
Chloromethane			15U		10,000
1,2-Dichloropropane			15U		10,000
1,1-Dichloroethane			15U		10,000
1,2-Dichloroethane			15U		1000
1,1-Dichloroethene			15U		8000
Dibromochloromethane			15U		1000
1,2-trans Dichloroethylene			15U		50,000
1,2-cis Dichloroethene			15U		1000
cis-1,3-Dichloropropene			15U		1000
trans-1,3-Dichloropropene			15U		1000
Ethylbenzene			15U		100,000
2-Hexanone			15U		NA
4-Methyl-2-Pentanone (MIBK)			15U		50,000
Methylene Chloride			15U	3 JB	1000
Styrene			15U		23,000
Tetrachloroethylene			15U		1000
1,1,2,2-Tetrachloroethane			15U		1000
Toluene			15U		500,000
1,1,1-Trichloroethane			15U		50,000
1,1,2-Trichloroethane			15U		1000
Trichloroethene (TCE)			15U		1000
Vinyl Chloride			15U		2000
Xylenes (Total)			15U		10,000
1,1,1,2-Tetrachloroethane			15U		1000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to extract	05/05/95	05/20/95			
Phenol			510U	2700	50,000
bis(2-chloroethyl)ether			510U		660
2-Chlorophenol			510U	2900	10,000
1,3-Dichlorobenzene			510U		100,000
1,4-Dichlorobenzene			510U	1800	100,000
1,2-Dichlorobenzene			510U		50,000
2-Methylphenol			510U		2,800,000
bis(2-chloroisopropyl)ether			510U		10,000
4-Methylphenol			510U		2,800,000
N-Nitroso-di-n-propylamine			510U	1500	660
Hexachloroethane			510U		6,000
Nitrobenzene			510U		10,000
Isophorone			510U		50,000
2-Nitrophenol			510U		NA
2,4-Dimethylphenol			510U		NA
2,4-Dichlorophenol			510U		10,000
1,2,4-Trichlorobenzene			510U	1600	68,000
Naphthalene			510U		100,000
4-Chloroaniline			510U		230,000
Hexachlorobutadiene			510U		1,000
bis(2-Chloroethoxy)methane			510U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			510U	2900	100,000
Hexachlorocyclopentadiene			510U		100,000
2,4,6-Trichlorophenol			510U		10,000
2,4,5-Trichlorophenol			2600U		50,000
2-Chloronaphthalene			510U		NA
Dimethyl phthalate			510U		50,000
Acenaphthylene			510U		44
2,6-Dinitrotoluene			510U		1,000
Acenaphthene			510U	1700	16
2,4-Dinitrophenol			2600U		10,000
4-Nitrophenol			2600U	3300	NA
2,4-Dinitrotoluene			510U	1900	1,000
Diethylphthalate			510U		[illegible]000
4-Chlorophenyl-phenylether			510U		[illegible]A
Fluorene			510U		18
4,6-Dinitro-2-methylphenol			2600U		NA
N-Nitrosodiphenylamine			510U		100[illegible]00
4-Bromophenyl-phenylether			510U		[illegible]A
Hexachlorobenzene			510U		660
Pentachlorophenol			2600U	3900	6,000
Phenanthrene			510U		NA
Anthracene			510U		85
Di-n-butylphthalate			510U		100,000
Fluoranthene			510U		380
Pyrene			51[illegible]U	2300	290
Butylbenzylphthalate			[illegible] J		100,000
3,3'-Dichlorobenzidine			1[illegible] J		2,000
Benzo(a)anthracene			510U		160
Chrysene			510U		220
Bis(2-Ethylhexyl)phthalate			510U		49,000
Di-n-octylphthalate			510U		10[illegible],000

Sample ID: PAT-4-95-C-5.0 Lab ID: PAT4C5 Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			510U		900
Benzo(k)fluoranthene			510U		900
Benzo(a)pyrene (BaP)			510U		230
Indeno(1,2,3-cd)pyrene			510U		900
Dibenz(a,h)anthracene			510U		31
Benzo(g,h,i)perylene			510U		NA
N-nitrosodimethylamine			5100U		NA
Benzidine			5100U		NA
1,2-Diphenylhydrazine			5100U		NA
Benzyl Alcohol			510U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to extract	05/05/95	05/14/95			
alpha-BHC			25U		NA
beta-BHC			25U		NA
delta-BHC			25U		NA
gamma-BHC (Lindane)			25U		520
Heptachlor			25U		150
Aldrin			25U		40
Heptachlor Epoxide			25U		NA
Endosulfan I			25U		50,000
Dieldrin			49U		11
4,4'-DDE			49U		2,000
Endrin			49U		42
Endosulfan II			49U		50,000
4,4'-DDD (p,p'-TDE)			49U		3,000
Endosulfan Sulfate			49U		50,000
4,4'-DDT			49U		2,000
Methoxychlor			250U		50,000
Endrin Ketone			49U		NA
Endrin Aldehyde			49U		NA
alpha-Chlordane			25U		NA
gamma-Chlordane			25U		NA
Mirex			49U		NA
Toxaphene			490U		100
Aroclor-1016			250U		29
Aroclor-1221			250U		29
Aroclor-1232			250U		29
Aroclor-1242			250U		29
Aroclor-1248			250U		29
Aroclor-1254			250U		29
Aroclor-1260			250U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95, 5/18/95	5/19/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				730 BN	14,000
Arsenic				4,200	8,000
Barium				83,800	700,000
Beryllium			30U		1,000
Cadmium				190 B	1,000
Chromium				24,700 N	33,000
Copper				8,600 N*	28,000
Lead				7,300	21,000
Mercury	5/22/95	5/31/95	150U		100
Nickel				16,500	20,900
Selenium				1,000	63,000
Silver			90U	90 UN	500
Thallium				890 B	2,000
Vanadium				23,200	370,000
Zinc				46,200	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95-5/23/95		26,046	NA
Cyanide		5/13/95-5/19/95	0.77U		1,100
Moisture, in Percent				35.00	NA
GRAIN SIZE:					
Results in % Recovery		5/24/95, 5/25/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				3.2	
Sieve #200				16.5	
Results in Relative %					
Silt				49.2	
Clay				31.0	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SFM-1-95-C-0.0 Lab ID: SFM1C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/8/95			
Acetone			14U		100,000
Acrolein			140U		NA
Acrylonitrile			140U		1,000
Benzene			14U		1,000
Bromodichloromethane			14U		1,000
Bromoform			14U		1,000
Bromomethane			14U		1,000
2-Butanone (MEK)			14U		50,000
Carbon Tetrachloride			14U		1,000
2-Chloroethylvinylether			14U		NA
Chlorobenzene			14U		1,000
Chloroethane			14U		NA
Chloroform			14U		1,000
Chloromethane			14U		10,000
1,2-Dichloropropane			14U		10,000
1,1-Dichloroethane			14U		10,000
1,2-Dichloroethane			14U		1,000
1,1-Dichloroethene			14U		8,000
Dibromochloromethane			14U		1,000
1,2-trans Dichloroethylene			14U		50,000
1,2-cis Dichloroethene			14U		1,000
cis-1,3-Dichloropropene			14U		1,000
trans-1,3-Dichloropropene			14U		1,000
Ethylbenzene			14U		100,000
2-Hexanone			14U		NA
4-Methyl-2-Pentanone (MIBK)			14U		50,000
Methylene Chloride			14U	9 JB	1,000
Styrene			14U		23,000
Tetrachloroethylene			14U		1,000
1,1,2,2-Tetrachloroethane			14U		1,000
Toluene			14U		500,000
1,1,1-Trichloroethane			14U		50,000
1,1,2-Trichloroethane			14U		1,000
Trichloroethene (TCE)			14U		1,000
Vinyl Chloride			14U		2,000
Xylenes (Total)			14U		10,000
1,1,1,2-Tetrachloroethane			14U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			460U		50,000
bis(2-chloroethyl)ether			460U		660
2-Chlorophenol			460U		10,000
1,3-Dichlorobenzene			460U		100,000
1,4-Dichlorobenzene			460U		100,000
1,2-Dichlorobenzene			460U		50,000
2-Methylphenol			460U		2,800,000
bis(2-chloroisopropyl)ether			460U		10,000
4-Methylphenol			460U		2,800,000
N-Nitroso-di-n-propylamine			460U		660
Hexachloroethane			460U		6,000
Nitrobenzene			460U		10,000
Isophorone			460U		50,000
2-Nitrophenol			460U		NA
2,4-Dimethylphenol			460U		NA
2,4-Dichlorophenol			460U		10,000
1,2,4-Trichlorobenzene			460U		68,000
Naphthalene			460U	86 J	100,000
4-Chloroaniline			460U		230,000
Hexachlorobutadiene			460U		1,000
bis(2-Chloroethoxy)methane			460U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			460U		100,000
Hexachlorocyclopentadiene			460U		100,000
2,4,6-Trichlorophenol			460U		10,000
2,4,5-Trichlorophenol			2300U		50,000
2-Chloronaphthalene			460U		NA
Dimethyl phthalate			460U		50,000
Acenaphthylene			460U		44
2,6-Dinitrotoluene			460U		1,000
Acenaphthene			460U	97 J	16
2,4-Dinitrophenol			2300U		10,000
4-Nitrophenol			2300U		NA
2,4-Dinitrotoluene			460U		1,000
Diethylphthalate			460U		50,000
4-Chlorophenyl-phenylether			460U		NA
Fluorene			460U		18
4,6-Dinitro-2-methylphenol			2300U		NA
N-Nitrosodiphenylamine			460U		100,000
4-Bromophenyl-phenylether			460U		NA
Hexachlorobenzene			460U		660
Pentachlorophenol			2300U		6,000
Phenanthrene			460U	580	NA
Anthracene			460U	160 J	85
Di-n-butylphthalate			460U	58 J	100,000
Fluoranthene			460U	920	380
Pyrene			460U	770	290
Butylbenzylphthalate			460U		100,000
3,3'-Dichlorobenzidine			910U		2,000
Benzo(a)anthracene			460U	500	160
Chrysene			460U	610	220
Bis(2-Ethylhexyl)phthalate			460U	1700	49,000
Di-n-octylphthalate			460U		100,000

Results of Bulk Sediment Analyses

Sample ID: SFM-1-95-C-0.0 Lab ID: SFM1C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo b)fluoranthene			460U	510	900
Benzo(k)fluoranthene			460U	360 J	900
Benzo(a)pyrene (BaP)			460U	500	230
Indeno(1,2,3-cd)pyrene			460U	140 J	900
Dibenz(a,h)anthracene			460U		31
Benzo(g,h,i)perylene			460U	130 J	NA
N-nitrosodimethylamine			4600U		NA
Benzidine			4600U		NA
1,2-Diphenylhydrazine			4600U		NA
Benzyl Alcohol			460U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			22U		NA
beta-BHC			22U		NA
delta-BHC			22U		NA
gamma-BHC (Lindane)			22U		520
Heptachlor			22U		150
Aldrin			22U		40
Heptachlor Epoxide			22U		NA
Endosulfan I			22U		0,000
Dieldrin			44U		11
4,4'-DDE			44U	120	2,000
Endrin			44U		42
Endosulfan II			44U		50,000
4,4'-DDD (p,p'-TDE)			44U		3,000
Endosulfan Sulfate			44U		50,000
4,4'-DDT			44U		2,000
Methoxychlor			220U		50,000
Endrin Ketone			44U		NA
Endrin Aldehyde			44U		NA
alpha-Chlordane			22U		NA
gamma-Chlordane			22U		NA
Mirex			44U		NA
Toxaphene			440U		100
Aroclor-1016			220U		29
Aroclor-1221			220U		29
Aroclor-1232			220U		29
Aroclor-1242			220U		29
Aroclor-1248			220U		29
Aroclor-1254			220U	160 J	29
Aroclor-1260			220U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				2,400 BN	14,000
Arsenic				9,300 N	8,000
Barium				76,000	700,000
Beryllium				250 B	1,000
Cadmium				2,400	1,000
Chromium				64,700	33,000
Copper				44,100	28,000
Lead				69,000	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	140U		100
Nickel				18,000	20,900
Selenium				800	63,000
Silver				1,100 BN	500
Thallium				620 B	2,000
Vanadium				39,200	370,000
Zinc				239,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		12,411	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				27.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				1.1	
Sieve #40				16.8	
Sieve #200				37.7	
Results in Relative %					
Silt				0.0	
Clay				44.3	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SFM-1-95-C-1.0 Lab ID: SFM1C1 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			21U		100,000
Acrolein			210U		NA
Acrylonitrile			210U		1,000
Benzene			21U		1,000
Bromodichloromethane			21U		1,000
Bromoform			21U		1,000
Bromomethane			21U		1,000
2-Butanone (MEK)			21U		50,000
Carbon Tetrachloride			21U		1,000
2-Chloroethylvinylether			21U		NA
Chlorobenzene			21U		1,000
Chloroethane			21U		NA
Chloroform			21U		1,000
Chloromethane			21U		10,000
1,2-Dichloropropane			21U		10,000
1,1-Dichloroethane			21U		10,000
1,2-Dichloroethane			21U		1,000
1,1-Dichloroethene			21U		8,000
Dibromochloromethane			21U		1,000
1,2-trans Dichloroethylene			21U		50,000
1,2-cis Dichloroethene			21U		1,000
cis-1,3-Dichloropropene			21U		1,000
trans-1,3-Dichloropropene			21U		1,000
Ethylbenzene			21U		100,000
2-Hexanone			21U		NA
4-Methyl-2-Pentanone (MIBK)			21U		50,000
Methylene Chloride			21U	6 J	1,000
Styrene			21U		23,000
Tetrachloroethylene			21U		1,000
1,1,2,2-Tetrachloroethane			21U		1,000
Toluene			21U		500,000
1,1,1-Trichloroethane			21U		50,000
1,1,2-Trichloroethane			21U		1,000
Trichloroethene (TCE)			21U		1,000
Vinyl Chloride			21U		2,000
Xylenes (Total)			21U		10,000
1,1,1,2-Tetrachloroethane			21U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			690U		50,000
bis(2-chloroethyl)ether			690U		660
2-Chlorophenol			690U		10,000
1,3-Dichlorobenzene			690U		100,000
1,4-Dichlorobenzene			690U		100,000
1,2-Dichlorobenzene			690U		50,000
2-Methylphenol			690U		2,800,000
bis(2-chloroisopropyl)ether			690U		10,000
4-Methylphenol			690U	100 J	2,800,000
N-Nitroso-di-n-propylamine			690U		660
Hexachloroethane			690U		6,000
Nitrobenzene			690U		10,000
Isophorone			690U		50,000
2-Nitrophenol			690U		NA
2,4-Dimethylphenol			690U		NA
2,4-Dichlorophenol			690U		10,000
1,2,4-Trichlorobenzene			690U		68,000
Naphthalene			690U		100,000
4-Chloroaniline			690U		230,000
Hexachlorobutadiene			690U		1,000
bis(2-Chloroethoxy)methane			690U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			690U		100,000
Hexachlorocyclopentadiene			690U		100,000
2,4,6-Trichlorophenol			690U		10,000
2,4,5-Trichlorophenol			3500U		50,000
2-Chloronaphthalene			690U		NA
Dimethyl phthalate			690U		50,000
Acenaphthylene			690U		44
2,6-Dinitrotoluene			690U		1,000
Acenaphthene			690U		16
2,4-Dinitrophenol			3500U		10,000
4-Nitrophenol			3500U		NA
2,4-Dinitrotoluene			690U		1,000
Diethylphthalate			690U		50,000
4-Chlorophenyl-phenylether			690U		NA
Fluorene			690U		18
4,6-Dinitro-2-methylphenol			3500U		NA
N-Nitrosodiphenylamine			690U		100,000
4-Bromophenyl-phenylether			690U		NA
Hexachlorobenzene			690U		660
Pentachlorophenol			3500U		6,000
Phenanthrene			690U	180 J	NA
Anthracene			690U	90 J	85
Di-n-butylphthalate			690U	83 J	100,000
Fluoranthene			690U	240 J	380
Pyrene			690U	300 J	290
Butylbenzylphthalate			690U		100,000
3,3'-Dichlorobenzidine			1400U		2,000
Benzo(a)anthracene			690U	250 J	160
Chrysene			690U	420 J	220
Bis(2-Ethylhexyl)phthalate			690 J	1600	49,000
Di-n-octylphthalate			690U		100,000

Sample ID: SFM-1-95-C-1.0 Lab ID: SFM1C1 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			690U	220 J	900
Benzo(k)fluoranthene			690U	200 J	900
Benzo(a)pyrene (BaP)			690U	230 J	230
Indeno(1,2,3-cd)pyrene			690U		900
Dibenz(a,h)anthracene			690U		31
Benzo(g,h,i)perylene			690U		NA
N-nitrosodimethylamine			6900U		NA
Benzidine			6900U		NA
1,2-Diphenylhydrazine			6900U		NA
Benzyl Alcohol			690U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			33U		NA
beta-BHC			33U		NA
delta-BHC			33U		NA
gamma-BHC (Lindane)			33U		520
Heptachlor			33U		150
Aldrin			33U		40
Heptachlor Epoxide			33U		NA
Endosulfan I			33U		50,000
Dieldrin			67U		11
4,4'-DDE			67U	260	2,000
Endrin			67U	34 J	42
Endosulfan II			67U		50,000
4,4'-DDD (p,p'-TDE)			67U		3,000
Endosulfan Sulfate			67U		50,000
4,4'-DDT			67U		2,000
Methoxychlor			330U		50,000
Endrin Ketone			67U		NA
Endrin Aldehyde			67U		NA
alpha-Chlordane			33U		NA
gamma-Chlordane			33U		NA
Mirex			67U		NA
Toxaphene			670U		100
Aroclor-1016			330U		29
Aroclor-1221			330U		29
Aroclor-1232			330U		29
Aroclor-1242			330U		29
Aroclor-1248			330U		29
Aroclor-1254			330U	550	29
Aroclor-1260			330U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				2,000 BN	14,000
Arsenic				25,200 N	8,000
Barium				160,000	700,000
Beryllium				50 B	1,000
Cadmium				3,200	1,000
Chromium				169,000	33,000
Copper				97,000	28,000
Lead				140,000	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		970	100
Nickel				34,900	20,900
Selenium				2,200	63,000
Silver				3,500 N	500
Thallium				2,200	2,000
Vanadium				123,000	370,000
Zinc				337,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		67,583	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				52.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				1.7	
Sieve #200				21.7	
Results in Relative %					
Silt				56.3	
Clay				20.3	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: SFM-1-95-C-3.3 Lab ID: SFM1C3 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			18U		100,000
Acrolein			180U		NA
Acrylonitrile			180U		1,000
Benzene			18U		1,000
Bromodichloromethane			18U		1,000
Bromoform			18U		1,000
Bromomethane			18U		1,000
2-Butanone (MEK)			18U		50,000
Carbon Tetrachloride			18U		1,000
2-Chloroethylvinylether			18U		NA
Chlorobenzene			18U		1,000
Chloroethane			18U		NA
Chloroform			18U		1,000
Chloromethane			18U		10,000
1,2-Dichloropropane			18U		10,000
1,1-Dichloroethane			18U		10,000
1,2-Dichloroethane			18U		1,000
1,1-Dichloroethene			18U		8,000
Dibromochloromethane			18U		1,000
1,2-trans Dichloroethylene			18U		50,000
1,2-cis Dichloroethene			18U		1,000
cis-1,3-Dichloropropene			18U		1,000
trans-1,3-Dichloropropene			18U		1,000
Ethylbenzene			18U		100,000
2-Hexanone			18U		NA
4-Methyl-2-Pentanone (MIBK)			18U		50,000
Methylene Chloride			18U	5 J	1,000
Styrene			18U		23,000
Tetrachloroethylene			18U		1,000
1,1,2,2-Tetrachloroethane			18U		1,000
Toluene			18U		500,000
1,1,1-Trichloroethane			18U		50,000
1,1,2-Trichloroethane			18U		1,000
Trichloroethene (TCE)			18U		1,000
Vinyl Chloride			18U		2,000
Xylenes (Total)			18U		10,000
1,1,1,2-Tetrachloroethane			18U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			580U		50,000
bis(2-chloroethyl)ether			580U		660
2-Chlorophenol			580U		10,000
1,3-Dichlorobenzene			580U		100,000
1,4-Dichlorobenzene			580U		100,000
1,2-Dichlorobenzene			580U		50,000
2-Methylphenol			580U		2,800,000
bis(2-chloroisopropyl)ether			580U		10,000
4-Methylphenol			580U		2,800,000
N-Nitroso-di-n-propylamine			580U		660
Hexachloroethane			580U		6,000
Nitrobenzene			580U		10,000
Isophorone			580U		50,000
2-Nitrophenol			580U		NA
2,4-Dimethylphenol			580U		NA
2,4-Dichlorophenol			580U		10,000
1,2,4-Trichlorobenzene			580U		68,000
Naphthalene			580U		100,000
4-Chloroaniline			580U		230,000
Hexachlorobutadiene			580U		1,000
bis(2-Chloroethoxy)methane			580U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			580U		100,000
Hexachlorocyclopentadiene			580U		100,000
2,4,6-Trichlorophenol			580U		10,000
2,4,5-Trichlorophenol			2900U		50,000
2-Chloronaphthalene			580U		NA
Dimethyl phthalate			580U		50,000
Acenaphthylene			580U		44
2,6-Dinitrotoluene			580U		1,000
Acenaphthene			580U		16
2,4-Dinitrophenol			2900U		10,000
4-Nitrophenol			2900U		NA
2,4-Dinitrotoluene			580U		1,000
Diethylphthalate			580U		50,000
4-Chlorophenyl-phenylether			580U		NA
Fluorene			580U		18
4,6-Dinitro-2-methylphenol			2900U		NA
N-Nitrosodiphenylamine			580U		100,000
4-Bromophenyl-phenylether			580U		NA
Hexachlorobenzene			580U		660
Pentachlorophenol			2900U		6,000
Phenanthrene			580U		NA
Anthracene			580U		85
Di-n-butylphthalate			580U		100,000
Fluoranthene			580U		380
Pyrene			580U		290
Butylbenzylphthalate			580U		100,000
3,3'-Dichlorobenzidine			1200U		2,000
Benzo(a)anthracene			580U		160
Chrysene			580U		220
Bis(2-Ethylhexyl)phthalate			580U	83 J	49,000
Di-n-octylphthalate			580U		100,000

Sample ID: SFM-1-95-C-3.3 Lab ID: SFM1C3 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			580U		900
Benzo(k)fluoranthene			580U		900
Benzo(a)pyrene (BaP)			580U		230
Indeno(1,2,3-cd)pyrene			580U		900
Dibenz(a,h)anthracene			580U		31
Benzo(g,h,i)perylene			580U		NA
N-nitrosodimethylamine			5800U		NA
Benzidine			5800U		NA
1,2-Diphenylhydrazine			5800U		NA
Benzyl Alcohol			580U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			14U		NA
beta-BHC			14U		NA
delta-BHC			14U		NA
gamma-BHC (Lindane)			14U		520
Heptachlor			14U		150
Aldrin			14U		40
Heptachlor Epoxide			14U		NA
Endosulfan I			14U		50,000
Dieldrin			28U		11
4,4'-DDE			28U		2,000
Endrin			28U		42
Endosulfan II			28U		50,000
4,4'-DDD (p,p'-TDE)			28U		3,000
Endosulfan Sulfate			28U		50,000
4,4'-DDT			28U		2,000
Methoxychlor			140U		50,000
Endrin Ketone			28U		NA
Endrin Aldehyde			28U		NA
alpha-Chlordane			14U		NA
gamma-Chlordane			14U		NA
Mirex			28U		NA
Toxaphene			280U		100
Aroclor-1016			140U		29
Aroclor-1221			140U		29
Aroclor-1232			140U		29
Aroclor-1242			140U		29
Aroclor-1248			140U		29
Aroclor-1254			140U		29
Aroclor-1260			140U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			610U	610 UN	14,000
Arsenic				8,500 N	8,000
Barium				86,700	700,000
Beryllium			30U		1,000
Cadmium				170 B	1,000
Chromium				41,500	33,000
Copper				11,600	28,000
Lead				10,300	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	180U		100
Nickel				23,400	20,900
Selenium				490 B	63,000
Silver				680 BN	500
Thallium				1,800	2,000
Vanadium				41,800	370,000
Zinc				61,600	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		53,772	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				43.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				4.4	
Sieve #40				4.2	
Sieve #200				18.3	
Results in Relative %					
Silt				56.7	
Clay				16.4	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SFM-1-95-C-6.4 LAb ID: SFM1C6 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			14U		100,000
Acrolein			140U		NA
Acrylonitrile			140U		1,000
Benzene			14U		1,000
Bromodichloromethane			14U		1,000
Bromoform			14U		1,000
Bromomethane			14U		1,000
2-Butanone (MEK)			14U		50,000
Carbon Tetrachloride			14U		1,000
2-Chloroethylvinylether			14U		NA
Chlorobenzene			14U		1,000
Chloroethane			14U		NA
Chloroform			14U		1,000
Chloromethane			14U		10,000
1,2-Dichloropropane			14U		10,000
1,1-Dichloroethane			14U		10,000
1,2-Dichloroethane			14U		1,000
1,1-Dichloroethene			14U		8,000
Dibromochloromethane			14U		1,000
1,2-trans Dichloroethylene			14U		50,000
1,2-cis Dichloroethene			14U		1,000
cis-1,3-Dichloropropene			14U		1,000
trans-1,3-Dichloropropene			14U		1,000
Ethylbenzene			14U		100,000
2-Hexanone			14U		NA
4-Methyl-2-Pentanone (MIBK)			14U		50,000
Methylene Chloride			14U	5 J	1,000
Styrene			14U		23,000
Tetrachloroethylene			14U		1,000
1,1,2,2-Tetrachloroethane			14U		1,000
Toluene			14U		500,000
1,1,1-Trichloroethane			14U		50,000
1,1,2-Trichloroethane			14U		1,000
Trichloroethene (TCE)			14U		1,000
Vinyl Chloride			14U		2,000
Xylenes (Total)			14U		10,000
1,1,1,2-Tetrachloroethane			14U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			480U		50,000
bis(2-chloroethyl)ether			480U		660
2-Chlorophenol			480U		10,000
1,3-Dichlorobenzene			480U		100,000
1,4-Dichlorobenzene			480U		100,000
1,2-Dichlorobenzene			480U		50,000
2-Methylphenol			480U		2,800,000
bis(2-chloroisopropyl)ether			480U		10,000
4-Methylphenol			480U		2,800,000
N-Nitroso-di-n-propylamine			480U		660
Hexachloroethane			480U		6,000
Nitrobenzene			480U		10,000
Isophorone			480U		50,000
2-Nitrophenol			480U		NA
2,4-Dimethylphenol			480U		NA
2,4-Dichlorophenol			480U		10,000
1,2,4-Trichlorobenzene			480U		68,000
Naphthalene			480U		100,000
4-Chloroaniline			480U		230,000
Hexachlorobutadiene			480U		1,000
bis(2-Chloroethoxy)methane			480U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			480U		100,000
Hexachlorocyclopentadiene			480U		100,000
2,4,6-Trichlorophenol			480U		10,000
2,4,5-Trichlorophenol			2400U		50,000
2-Chloronaphthalene			480U		NA
Dimethyl phthalate			480U		50,000
Acenaphthylene			480U		44
2,6-Dinitrotoluene			480U		1,000
Acenaphthene			480U		16
2,4-Dinitrophenol			2400U		10,000
4-Nitrophenol			2400U		NA
2,4-Dinitrotoluene			480U		1,000
Diethylphthalate			480U		50,000
4-Chlorophenyl-phenylether			480U		NA
Fluorene			480U		18
4,6-Dinitro-2-methylphenol			2400U		NA
N-Nitrosodiphenylamine			480U		100,000
4-Bromophenyl-phenylether			480U		NA
Hexachlorobenzene			480U		660
Pentachlorophenol			2400U		6,000
Phenanthrene			480U		NA
Anthracene			480U		85
Di-n-butylphthalate			480U		100,000
Fluoranthene			480U		380
Pyrene			480U		290
Butylbenzylphthalate			480U		100,000
3,3'-Dichlorobenzidine			970U		2,000
Benzo(a)anthracene			480U		160
Chrysene			480U		220
Bis(2-Ethylhexyl)phthalate			480U		49,000
Di-n-octylphthalate			480U		100,000

Results of Bulk Sediment Analyses

Sample ID: SFM-1-95-C-6.4 LAb ID: SFM1C6 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			480U		900
Benzo(k)fluoranthene			480U		900
Benzo(a)pyrene (BaP)			480U	140 J	230
Indeno(1,2,3-cd)pyrene			480U		900
Dibenz(a,h)anthracene			480U		31
Benzo(g,h,i)perylene			480U		NA
N-nitrosodimethylamine			4800U		NA
Benzidine			4800U		NA
1,2-Diphenylhydrazine			4800U		NA
Benzyl Alcohol			480U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			12U		NA
beta-BHC			12U		NA
delta-BHC			12U		NA
gamma-BHC (Lindane)			12U		520
Heptachlor			12U		150
Aldrin			12U		40
Heptachlor Epoxide			12U		NA
Endosulfan I			12U		50,000
Dieldrin			23U		11
4,4'-DDE			23U		2,000
Endrin			23U		42
Endosulfan II			23U		50,000
4,4'-DDD (p,p'-TDE)			23U		3,000
Endosulfan Sulfate			23U		50,000
4,4'-DDT			23U		2,000
Methoxychlor			120U		50,000
Endrin Ketone			23U		NA
Endrin Aldehyde			23U		NA
alpha-Chlordane			12U		NA
gamma-Chlordane			12U		NA
Mirex			23U		NA
Toxaphene			230U		100
Aroclor-1016			120U		29
Aroclor-1221			120U		29
Aroclor-1232			120U		29
Aroclor-1242			120U		29
Aroclor-1248			120U		29
Aroclor-1254			120U		29
Aroclor-1260			120U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			450U	450 UN	14,000
Arsenic				4,200 N	8,000
Barium				53,700	700,000
Beryllium			20U		1,000
Cadmium				90 B	1,000
Chromium				20,200	33,000
Copper				6,400	28,000
Lead				5,500	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	140U		100
Nickel				13,900	20,900
Selenium			260U		63,000
Silver				620 BN	500
Thallium				990 B	2,000
Vanadium				20,700	370,000
Zinc				39,200	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		12,188	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				31.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				1.7	
Sieve #200				8.8	
Results in Relative %					
Silt				27.2	
Clay				62.3	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SFM-2-95-C-0.0 Lab ID: SFM2C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240)1					
Holding time: 14 days	—	5/10/95			
Acetone			14U		100,000
Acrolein			140U		NA
Acrylonitrile			140U		1,000
Benzene			14U		1,000
Bromodichloromethane			14U		1,000
Bromoform			14U		1,000
Bromomethane			14U		1,000
2-Butanone (MEK)			14U		50,000
Carbon Tetrachloride			14U		1,000
2-Chloroethylvinylether			14U		NA
Chlorobenzene			14U		1,000
Chloroethane			14U		NA
Chloroform			14U		1,000
Chloromethane			14U		10,000
1,2-Dichloropropane			14U		10,000
1,1-Dichloroethane			14U		10,000
1,2-Dichloroethane			14U		1,000
1,1-Dichloroethene			14U		8,000
Dibromochloromethane			14U		1,000
1,2-trans Dichloroethylene			14U		50,000
1,2-cis Dichloroethene			14U		1,000
cis-1,3-Dichloropropene			14U		1,000
trans-1,3-Dichloropropene			14U		1,000
Ethylbenzene			14U		100,000
2-Hexanone			14U		NA
4-Methyl-2-Pentanone (MIBK)			14U		50,000
Methylene Chloride			14U	3 J	1,000
Styrene			14U		23,000
Tetrachloroethylene			14U		1,000
1,1,2,2-Tetrachloroethane			14U		1,000
Toluene			14U		500,000
1,1,1-Trichloroethane			14U		50,000
1,1,2-Trichloroethane			14U		1,000
Trichloroethene (TCE)			14U		1,000
Vinyl Chloride			14U		2,000
Xylenes (Total)			14U		10,000
1,1,1,2-Tetrachloroethane			14U		1,000
SEMIVOLATILE ORGANICS (SW846 8270)1					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			480U		50,000
bis(2-chloroethyl)ether			480U		660
2-Chlorophenol			480U		10,000
1,3-Dichlorobenzene			480U		100,000
1,4-Dichlorobenzene			480U		100,000
1,2-Dichlorobenzene			480U		50,000
2-Methylphenol			480U		2,800,000
bis(2-chloroisopropyl)ether			480U		10,000
4-Methylphenol			480U		2,800,000
N-Nitroso-di-n-propylamine			480U		660
Hexachloroethane			480U		6,000
Nitrobenzene			480U		10,000
Isophorone			480U		50,000
2-Nitrophenol			480U		NA
2,4-Dimethylphenol			480U		NA
2,4-Dichlorophenol			480U		10,000
1,2,4-Trichlorobenzene			480U		68,000
Naphthalene			480U		100,000
4-Chloroaniline			480U		230,000
Hexachlorobutadiene			480U		1,000
bis(2-Chloroethoxy)methane			480U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			480U		100,000
Hexachlorocyclopentadiene			480U		100,000
2,4,6-Trichlorophenol			480U		10,000
2,4,5-Trichlorophenol			2400U		50,000
2-Chloronaphthalene			480U		NA
Dimethyl phthalate			480U		50,000
Acenaphthylene			480U		44
2,6-Dinitrotoluene			480U		1,000
Acenaphthene			480U		16
2,4-Dinitrophenol			2400U		10,000
4-Nitrophenol			2400U		NA
2,4-Dinitrotoluene			480U		1,000
Diethylphthalate			480U		50,000
4-Chlorophenyl-phenylether			480U		NA
Fluorene			480U		18
4,6-Dinitro-2-methylphenol			2400U		NA
N-Nitrosodiphenylamine			480U		100,000
4-Bromophenyl-phenylether			480U		NA
Hexachlorobenzene			480U		660
Pentachlorophenol			2400U		6,000
Phenanthrene			480U		NA
Anthracene			480U		85
Di-n-butylphthalate			480U	100J	100,000
Fluoranthene			480U		380
Pyrene			480U		290
Butylbenzylphthalate			480U		100,000
3,3'-Dichlorobenzidine			970U		2,000
Benzo(a)anthracene			480U		160
Chrysene			480U		220
Bis(2-Ethylhexyl)phthalate			480U	57J	49,000
Di-n-octylphthalate			480U		100,000

Sample ID: SFM-2-95-C-0.0 Lab ID: SFM2C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			480U		900
Benzo(k)fluoranthene			480U		900
Benzo(a)pyrene (BaP)			480U	140J	230
Indeno(1,2,3-cd)pyrene			480U		900
Dibenz(a,h)anthracene			480U		31
Benzo(g,h,i)perylene			480U		NA
N-nitrosodimethylamine			4800U		NA
Benzidine			4800U		NA
1,2-Diphenylhydrazine			4800U		NA
Benzyl Alcohol			480U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			12U		NA
beta-BHC			12U		NA
delta-BHC			12U		NA
gamma-BHC (Lindane)			12U		520
Heptachlor			12U		150
Aldrin			12U		40
Heptachlor Epoxide			12U		NA
Endosulfan I			12U		50,000
Dieldrin			23U		11
4,4'-DDE			23U		2,000
Endrin			23U		42
Endosulfan II			23U		50,000
4,4'-DDD (p,p'-TDE)			23U		3,000
Endosulfan Sulfate			23U		50,000
4,4'-DDT			23U		2,000
Methoxychlor			120U		50,000
Endrin Ketone			23U		NA
Endrin Aldehyde			23U		NA
alpha-Chlordane			12U		NA
gamma-Chlordane			12U		NA
Mirex			23U		NA
Toxaphene			230U		100
Aroclor-1016			120U		29
Aroclor-1221			120U		29
Aroclor-1232			120U		29
Aroclor-1242			120U		29
Aroclor-1248			120U		29
Aroclor-1254			120U		29
Aroclor-1260			120U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			320U	420 UN	14,000
Arsenic				3,200 N	8,000
Barium				40,800	700,000
Beryllium			20U		1,000
Cadmium				60 B	1,000
Chromium				16,000	33,000
Copper				4,200	28,000
Lead				4,400	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	140U		100
Nickel				10,700	20,900
Selenium			240U		63,000
Silver			70U	70 UN	500
Thallium				770 B	2,000
Vanadium				16,200	370,000
Zinc				30,300	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (TOI)		5/19/95, 5/23/95		16,464	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				31.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				10.7	
Sieve #200				52.6	
Results in Relative %					
Silt				12.9	
Clay				23.8	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SFM-2-95-C-5.0 Lab ID: SFM2C5 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/10/95			
Acetone			15U		100,000
Acrolein			150U		NA
Acrylonitrile			150U		1,000
Benzene			15U		1,000
Bromodichloromethane			15U		1,000
Bromoform			15U		1,000
Bromomethane			15U		1,000
2-Butanone (MEK)			15U		50,000
Carbon Tetrachloride			15U		1,000
2-Chloroethylvinylether			15U		NA
Chlorobenzene			15U		1,000
Chloroethane			15U		NA
Chloroform			15U		1,000
Chloromethane			15U		10,000
1,2-Dichloropropane			15U		10,000
1,1-Dichloroethane			15U		10,000
1,2-Dichloroethane			15U		1,000
1,1-Dichloroethene			15U		8,000
Dibromochloromethane			15U		1,000
1,2-trans Dichloroethylene			15U		50,000
1,2-cis Dichloroethene			15U		1,000
cis-1,3-Dichloropropene			15U		1,000
trans-1,3-Dichloropropene			15U		1,000
Ethylbenzene			15U		100,000
2-Hexanone			15U		NA
4-Methyl-2-Pentanone (MIBK)			15U		50,000
Methylene Chloride			15U	5 J	1,000
Styrene			15U		23,000
Tetrachloroethylene			15U		1,000
1,1,2,2-Tetrachloroethane			15U		1,000
Toluene			15U		500,000
1,1,1-Trichloroethane			15U		50,000
1,1,2-Trichloroethane			15U		1,000
Trichloroethene (TCE)			15U		1,000
Vinyl Chloride			15U		2,000
Xylenes (Total)			15U		10,000
1,1,1,2-Tetrachloroethane			15U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95 and 05/26/95			
Phenol			510U		50,000
bis(2-chloroethyl)ether			510U		660
2-Chlorophenol			510U		10,000
1,3-Dichlorobenzene			510U		100,000
1,4-Dichlorobenzene			510U		100,000
1,2-Dichlorobenzene			510U		50,000
2-Methylphenol			510U		2,800,000
bis(2-chloroisopropyl)ether			510U		10,000
4-Methylphenol			510U		2,800,000
N-Nitroso-di-n-propylamine			510U		660
Hexachloroethane			510U		6,000
Nitrobenzene			510U		10,000
Isophorone			510U		50,000
2-Nitrophenol			510U		NA
2,4-Dimethylphenol			510U		NA
2,4-Dichlorophenol			510U		10,000
1,2,4-Trichlorobenzene			510U		68,000
Naphthalene			510U		100,000
4-Chloroaniline			510U		230,000
Hexachlorobutadiene			510U		1,000
bis(2-Chloroethoxy)methane			510U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			510U		100,000
Hexachlorocyclopentadiene			510U		100,000
2,4,6-Trichlorophenol			510U		10,000
2,4,5-Trichlorophenol			2600U		50,000
2-Chloronaphthalene			510U		NA
Dimethyl phthalate			510U		50,000
Acenaphthylene			510U		44
2,6-Dinitrotoluene			510U		1,000
Acenaphthene			510U		16
2,4-Dinitrophenol			2600U		10,000
4-Nitrophenol			2600U		NA
2,4-Dinitrotoluene			510U		1,000
Diethylphthalate			510U		50,000
4-Chlorophenyl-phenylether			510U		NA
Fluorene			510U		18
4,6-Dinitro-2-methylphenol			2600U		NA
N-Nitrosodiphenylamine			510U		100,000
4-Bromophenyl-phenylether			510U		NA
Hexachlorobenzene			510U		660
Pentachlorophenol			2600U		6,000
Phenanthrene			510U		NA
Anthracene			510U		85
Di-n-butylphthalate			510U		100,000
Fluoranthene			510U		380
Pyrene			510U		290
Butylbenzylphthalate			510U		100,000
3,3'-Dichlorobenzidine			1000U		2,000
Benzo(a)anthracene			510U		160
Chrysene			510U		220
Bis(2-Ethylhexyl)phthalate			510U		49,000
Di-n-octylphthalate			510U		100,000

Results of Bulk Sediment Analyses

Sample ID: SFM-2-95-C-5.0 Lab ID: SFM2C5 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			510U		900
Benzo(k)fluoranthene			510U		900
Benzo(a)pyrene (BaP)			510U	160J/150J	230
Indeno(1,2,3-cd)pyrene			510U		900
Dibenz(a,h)anthracene			510U		31
Benzo(g,h,i)perylene			510U		NA
N-nitrosodimethylamine			5100U		NA
Benzidine			5100U		NA
1,2-Diphenylhydrazine			5100U		NA
Benzyl Alcohol			510U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			12U		NA
beta-BHC			12U		NA
delta-BHC			12U		NA
gamma-BHC (Lindane)			12U		520
Heptachlor			12U		150
Aldrin			12U		40
Heptachlor Epoxide			12U		NA
Endosulfan I			12U		50,000
Dieldrin			25U		11
4,4'-DDE			25U		2,000
Endrin			25U		42
Endosulfan II			25U		50,000
4,4'-DDD (p,p'-TDE)			25U		3,000
Endosulfan Sulfate			25U		50,000
4,4'-DDT			25U		2,000
Methoxychlor			120U		50,000
Endrin Ketone			25U		NA
Endrin Aldehyde			25U		NA
alpha-Chlordane			12U		NA
gamma-Chlordane			12U		NA
Mirex			25U		NA
Toxaphene			250U		100
Aroclor-1016			120U		29
Aroclor-1221			120U		29
Aroclor-1232			120U		29
Aroclor-1242			120U		29
Aroclor-1248			120U		29
Aroclor-1254			120U		29
Aroclor-1260			120U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			540U	540 UN	14,000
Arsenic				4,000 N	8,000
Barium				52,500	700,000
Beryllium			30U		1,000
Cadmium				60 B	1,000
Chromium				17,500	33,000
Copper				5,900	28,000
Lead				5,500	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	150U		100
Nickel				13,000	20,900
Selenium				320 B	63,000
Silver				190 BN	500
Thallium				1,200 B	2,000
Vanadium				17,400	370,000
Zinc				35,500	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		60,692	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				35.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				1.5	
Sieve #40				2.7	
Sieve #200				46.5	
Results in Relative %					
Silt				31.7	
Clay				17.7	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: SHI-1-95-C-0.0 Lab ID: SHI1C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			21U		100,000
Acrolein			210U		NA
Acrylonitrile			210U		1,000
Benzene			21U		1,000
Bromodichloromethane			21U		1,000
Bromoform			21U		1,000
Bromomethane			21U		1,000
2-Butanone (MEK)			21U		50,000
Carbon Tetrachloride			21U		1,000
2-Chloroethylvinylether			21U		NA
Chlorobenzene			21U		1,000
Chloroethane			21U		NA
Chloroform			21U		1,000
Chloromethane			21U		10,000
1,2-Dichloropropane			21U		10,000
1,1-Dichloroethane			21U		10,000
1,2-Dichloroethane			21U		1,000
1,1-Dichloroethene			21U		8,000
Dibromochloromethane			21U		1,000
1,2-trans Dichloroethylene			21U		50,000
1,2-cis Dichloroethene			21U		1,000
cis-1,3-Dichloropropene			21U		1,000
trans-1,3-Dichloropropene			21U		1,000
Ethylbenzene			21U		100,000
2-Hexanone			21U		NA
4-Methyl-2-Pentanone (MIBK)			21U		50,000
Methylene Chloride			21U	6 J	1,000
Styrene			21U		23,000
Tetrachloroethylene			21U		1,000
1,1,2,2-Tetrachloroethane			21U		1,000
Toluene			21U		500,000
1,1,1-Trichloroethane			21U		50,000
1,1,2-Trichloroethane			21U		1,000
Trichloroethene (TCE)			21U		1,000
Vinyl Chloride			21U		2,000
Xylenes (Total)			21U		10,000
1,1,1,2-Tetrachloroethane			21U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/22/95			
Phenol			690U		50,000
bis(2-chloroethyl)ether			690U		660
2-Chlorophenol			690U		10,000
1,3-Dichlorobenzene			690U		100,000
1,4-Dichlorobenzene			690U		100,000
1,2-Dichlorobenzene			690U		50,000
2-Methylphenol			690U		2,800,000
bis(2-chloroisopropyl)ether			690U		10,000
4-Methylphenol			690U		2,800,000
N-Nitroso-di-n-propylamine			690U		660
Hexachloroethane			690U		6,000
Nitrobenzene			690U		10,000
Isophorone			690U		50,000
2-Nitrophenol			690U		NA
2,4-Dimethylphenol			690U		NA
2,4-Dichlorophenol			690U		10,000
1,2,4-Trichlorobenzene			690U		68,000
Naphthalene			690U		100,000
4-Chloroaniline			690U		230,000
Hexachlorobutadiene			690U		1,000
bis(2-Chloroethoxy)methane			690U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			690U		100,000
Hexachlorocyclopentadiene			690U		100,000
2,4,6-Trichlorophenol			690U		10,000
2,4,5-Trichlorophenol			3500U		50,000
2-Chloronaphthalene			690U		NA
Dimethyl phthalate			690U		50,000
Acenaphthylene			690U		44
2,6-Dinitrotoluene			690U		1,000
Acenaphthene			690U		16
2,4-Dinitrophenol			3500U		10,000
4-Nitrophenol			3500U		NA
2,4-Dinitrotoluene			690U		1,000
Diethylphthalate			690U		50,000
4-Chlorophenyl-phenylether			690U		NA
Fluorene			690U		18
4,6-Dinitro-2-methylphenol			3500U		NA
N-Nitrosodiphenylamine			690U		100,000
4-Bromophenyl-phenylether			690U		NA
Hexachlorobenzene			690U		660
Pentachlorophenol			3500U		6,000
Phenanthrene			590U	85 J	NA
Anthracene			690U		85
Di-n-butylphthalate			690U	81 J	100,000
Fluoranthene			690U	140 J	380
Pyrene			690U	160 J	290
Butylbenzylphthalate			690U		100,000
3,3'-Dichlorobenzidine			1400U		2,000
Benzo(a)anthracene			690U	86 J	160
Chrysene			690U	110 J	220
Bis(2-Ethylhexyl)phthalate			690U	840	49,000
Di-n-octylphthalate			690U		100,000

Results of Bulk Sediment Analyses

Sample ID: SHI-1-95-C-0.0 Lab ID: SHI1C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			690U	100 J	900
Benzo(k)fluoranthene			690U	120 J	900
Benzo(a)pyrene (BaP)			690U	91 J	230
Indeno(1,2,3-cd)pyrene			690U		900
Dibenz(a,h)anthracene			690U		31
Benzo(g,h,i)perylene			690U		NA
N-nitrosodimethylamine			6900U		NA
Benzidine			6900U		NA
1,2-Diphenylhydrazine			6900U		NA
Benzyl Alcohol			690U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			33U		NA
beta-BHC			33U		NA
delta-BHC			33U		NA
gamma-BHC (Lindane)			33U		520
Heptachlor			33U		150
Aldrin			33U		40
Heptachlor Epoxide			33U		NA
Endosulfan I			33U		50,000
Dieldrin			67U		11
4,4'-DDE			67U	76	2,000
Endrin			67U		42
Endosulfan II			67U		50,000
4,4'-DDD (p,p'-TDE)			67U		3,000
Endosulfan Sulfate			67U		50,000
4,4'-DDT			67U		2,000
Methoxychlor			330U		50,000
Endrin Ketone			67U		NA
Endrin Aldehyde			67U		NA
alpha-Chlordane			33U		NA
gamma-Chlordane			33U		NA
Mirex			67U		NA
Toxaphene			670U		100
Aroclor-1016			330U		29
Aroclor-1221			330U		29
Aroclor-1232			330U		29
Aroclor-1242			330U		29
Aroclor-1248			330U		29
Aroclor-1254			330U	230 J	29
Aroclor-1260			330U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,700 BN	14,000
Arsenic				14,900 N	8,000
Barium				184,000	700,000
Beryllium			40U		1,000
Cadmium				3,000	1,000
Chromium				114,000	33,000
Copper				78,800	28,000
Lead				110,000	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		520	100
Nickel				34,600	20,900
Selenium				1,300	63,000
Silver				2,800 N	500
Thallium				2,600	2,000
Vanadium				87,000	370,000
Zinc				380,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		64,896	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				52.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				3.5	
Sieve #200				20.3	
Results in Relative %					
Silt				58.2	
Clay				18.0	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: SHI-1-95-C-6.7 Lab ID: SHI1C6 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			15U		100,000
Acrolein			150U		NA
Acrylonitrile			150U		1,000
Benzene			15U		1,000
Bromodichloromethane			15U		1,000
Bromoform			15U		1,000
Bromomethane			15U		1,000
2-Butanone (MEK)			15U		50,000
Carbon Tetrachloride			15U		1,000
2-Chloroethylvinylether			15U		NA
Chlorobenzene			15U		1,000
Chloroethane			15U		NA
Chloroform			15U		1,000
Chloromethane			15U		10,000
1,2-Dichloropropane			15U		10,000
1,1-Dichloroethane			15U		10,000
1,2-Dichloroethane			15U		1,000
1,1-Dichloroethene			15U		8,000
Dibromochloromethane			15U		1,000
1,2-trans Dichloroethylene			15U		50,000
1,2-cis Dichloroethene			15U		1,000
cis-1,3-Dichloropropene			15U		1,000
trans-1,3-Dichloropropene			15U		1,000
Ethylbenzene			15U		100,000
2-Hexanone			15U		NA
4-Methyl-2-Pentanone (MIBK)			15U		50,000
Methylene Chloride			15U	4 J	1,000
Styrene			15U		23,000
Tetrachloroethylene			15U		1,000
1,1,2,2-Tetrachloroethane			15U		1,000
Toluene			15U	2 J	500,000
1,1,1-Trichloroethane			15U		50,000
1,1,2-Trichloroethane			15U		1,000
Trichloroethene (TCE)			15U		1,000
Vinyl Chloride			15U		2,000
Xylenes (Total)			15U		10,000
1,1,1,2-Tetrachloroethane			15U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			500U		50,000
bis(2-chloroethyl)ether			500U		660
2-Chlorophenol			500U		10,000
1,3-Dichlorobenzene			500U		100,000
1,4-Dichlorobenzene			500U		100,000
1,2-Dichlorobenzene			500U		50,000
2-Methylphenol			500U		2,800,000
bis(2-chloroisopropyl)ether			500U		10,000
4-Methylphenol			500U		2,800,000
N-Nitroso-di-n-propylamine			500U		660
Hexachloroethane			500U		6,000
Nitrobenzene			500U		10,000
Isophorone			500U		50,000
2-Nitrophenol			500U		NA
2,4-Dimethylphenol			500U		NA
2,4-Dichlorophenol			500U		10,000
1,2,4-Trichlorobenzene			500U		68,000
Naphthalene			500U		100,000
4-Chloroaniline			500U		230,000
Hexachlorobutadiene			500U		1,000
bis(2-Chloroethoxy)methane			500U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			500U		100,000
Hexachlorocyclopentadiene			500U		100,000
2,4,6-Trichlorophenol			500U		10,000
2,4,5-Trichlorophenol			2500U		50,000
2-Chloronaphthalene			500U		NA
Dimethyl phthalate			500U		50,000
Acenaphthylene			500U		44
2,6-Dinitrotoluene			500U		1,000
Acenaphthene			500U		16
2,4-Dinitrophenol			2500U		10,000
4-Nitrophenol			2500U		NA
2,4-Dinitrotoluene			500U		1,000
Diethylphthalate			500U		50,000
4-Chlorophenyl-phenylether			500U		NA
Fluorene			500U		18
4,6-Dinitro-2-methylphenol			2500U		NA
N-Nitrosodiphenylamine			500U		100,000
4-Bromophenyl-phenylether			500U		NA
Hexachlorobenzene			500U		660
Pentachlorophenol			2500U		6,000
Phenanthrene			500U		NA
Anthracene			500U		85
Di-n-butylphthalate			500U		100,000
Fluoranthene			500U		380
Pyrene			500U		290
Butylbenzylphthalate			500U		100,000
3,3'-Dichlorobenzidine			1000U		2,000
Benzo(a)anthracene			500U		160
Chrysene			500U		220
Bis(2-Ethylhexyl)phthalate			500U		49,000
Di-n-octylphthalate			500U		100,000

Sample ID: SHI-1-95-C-6.7 Lab ID: SHI1C6 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			500U		900
Benzo(k)fluoranthene			500U		900
Benzo(a)pyrene (BaP)			500U	300 J	230
Indeno(1,2,3-cd)pyrene			500U		900
Dibenz(a,h)anthracene			500U		31
Benzo(g,h,i)perylene			500U		NA
N-nitrosodimethylamine			5000U		NA
Benzidine			5000U		NA
1,2-Diphenylhydrazine			5000U		NA
Benzyl Alcohol			500U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			12U		NA
beta-BHC			12U		NA
delta-BHC			12U		NA
gamma-BHC (Lindane)			12U		520
Heptachlor			12U		150
Aldrin			12U		40
Heptachlor Epoxide			12U		NA
Endosulfan I			12U		50,000
Dieldrin			24U		11
4,4'-DDE			24U		2,000
Endrin			24U		42
Endosulfan II			24U		50,000
4,4'-DDD (p,p'-TDE)			24U		3,000
Endosulfan Sulfate			24U		50,000
4,4'-DDT			24U		2,000
Methoxychlor			120U		50,000
Endrin Ketone			24U		NA
Endrin Aldehyde			24U		NA
alpha-Chlordane			12U		NA
gamma-Chlordane			12U		NA
Mirex			24U		NA
Toxaphene			240U		100
Aroclor-1016			120U		29
Aroclor-1221			120U		29
Aroclor-1232			120U		29
Aroclor-1242			120U		29
Aroclor-1248			120U		29
Aroclor-1254			120U		29
Aroclor-1260			120U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				700 BN	14,000
Arsenic				5,700 N	8,000
Barium				73,300	700,000
Beryllium			30U		1,000
Cadmium				110 B	1,000
Chromium				23,600	33,000
Copper				8,000	28,000
Lead				7,000	21,000
Mercury			150U		100
Nickel				15,600	20,900
Selenium				370 B	63,000
Silver				160 BN	500
Thallium				1,100 B	2,000
Vanadium				22,700	370,000
Zinc				40,900	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		42,000	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				33.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				4.2	
Sieve #200				30.5	
Results in Relative %					
Silt				49.9	
Clay				15.3	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SIII-2-95-C-0.0 Lab ID: SIII2C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/9/95			
Acetone			20U		100,000
Acrolein			200U		NA
Acrylonitrile			200U		1,000
Benzene			20U		1,000
Bromodichloromethane			20U		1,000
Bromoform			20U		1,000
Bromomethane			20U		1,000
2-Butanone (MEK)			20U		50,000
Carbon Tetrachloride			20U		1,000
2-Chloroethylvinylether			20U		NA
Chlorobenzene			20U		1,000
Chloroethane			20U		NA
Chloroform			20U		1,000
Chloromethane			20U		10,000
1,2-Dichloropropane			20U		10,000
1,1-Dichloroethane			20U		10,000
1,2-Dichloroethane			20U		1,000
1,1-Dichloroethene			20U		8,000
Dibromochloromethane			20U		1,000
1,2-trans Dichloroethylene			20U		50,000
1,2-cis Dichloroethene			20U		1,000
cis-1,3-Dichloropropene			20U		1,000
trans-1,3-Dichloropropene			20U		1,000
Ethylbenzene			20U		100,000
2-Hexanone			20U		NA
4-Methyl-2-Pentanone (MIBK)			20U		50,000
Methylene Chloride			20U	6 J	1,000
Styrene			20U		23,000
Tetrachloroethylene			20U		1,000
1,1,2,2-Tetrachloroethane			20U		1,000
Toluene			20U		500,000
1,1,1-Trichloroethane			20U		50,000
1,1,2-Trichloroethane			20U		1,000
Trichloroethene (TCE)			20U		1,000
Vinyl Chloride			20U		2,000
Xylenes (Total)			20U		10,000
1,1,1,2-Tetrachloroethane			20U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/22/95			
Phenol			650U		50,000
bis(2-chloroethyl)ether			650U		660
2-Chlorophenol			650U		10,000
1,3-Dichlorobenzene			650U		100,000
1,4-Dichlorobenzene			650U		100,000
1,2-Dichlorobenzene			650U		50,000
2-Methylphenol			650U		2,800,000
bis(2-chloroisopropyl)ether			650U		10,000
4-Methylphenol			650U	150 J	2,800,000
N-Nitroso-di-n-propylamine			650U		660
Hexachloroethane			650U		6,000
Nitrobenzene			650U		10,000
Isophorone			650U		50,000
2-Nitrophenol			650U		NA
2,4-Dimethylphenol			650U		NA
2,4-Dichlorophenol			650U		10,000
1,2,4-Trichlorobenzene			650U		68,000
Naphthalene			650U	94 J	100,000
4-Chloroaniline			650U	100 J	230,000
Hexachlorobutadiene			650U		1,000
bis(2-Chloroethoxy)methane			650U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			650U		100,000
Hexachlorocyclopentadiene			650U		100,000
2,4,6-Trichlorophenol			650U		10,000
2,4,5-Trichlorophenol			3300U		50,000
2-Chloronaphthalene			650U		NA
Dimethyl phthalate			650U		50,000
Acenaphthylene			650U		44
2,6-Dinitrotoluene			650U		1,000
Acenaphthene			650U		16
2,4-Dinitrophenol			3300U		10,000
4-Nitrophenol			3300U		NA
2,4-Dinitrotoluene			650U		1,000
Diethylphthalate			650U		50,000
4-Chlorophenyl-phenylether			650U		NA
Fluorene			650U		18
4,6-Dinitro-2-methylphenol			3300U		NA
N-Nitrosodiphenylamine			650U		100,000
4-Bromophenyl-phenylether			650U		NA
Hexachlorobenzene			650U		660
Pentachlorophenol			3300U		6,000
Phenanthrene			650U	210 J	NA
Anthracene			650U	71 J	85
Di-n-butylphthalate			650U	130 J	100,000
Fluoranthene			650U	360 J	380
Pyrene			650U	380 J	290
Butylbenzylphthalate			650U		100,000
3,3'-Dichlorobenzidine			1300U		2,000
Benzo(a)anthracene			650U	210 J	160
Chrysene			650U	270 J	220
Bis(2-Ethylhexyl)phthalate			650U	2600	49,000
Di-n-octylphthalate			650U		100,000

Results of Bulk Sediment Analyses

Sample ID: SIII-2-95-C-0.0 Lab ID: SIII2C0 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			650U	210 J	900
Benzo(k)fluoranthene			650U	200 J	900
Benzo(a)pyrene (BaP)			650U	190 J	230
Indeno(1,2,3-cd)pyrene			650U		900
Dibenz(a,h)anthracene			650U		31
Benzo(g,h,i)perylene			650U		NA
N-nitrosodimethylamine			6500U		NA
Benzidine			6500U		NA
1,2-Diphenylhydrazine			6500U		NA
Benzyl Alcohol			650U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/24/95			
alpha-BHC			31U		NA
beta-BHC			31U		NA
delta-BHC			31U		NA
gamma-BHC (Lindane)			31U		520
Heptachlor			31U		150
Aldrin			31U		40
Heptachlor Epoxide			31U		NA
Endosulfan I			31U		50,000
Dieldrin			63U		11
4,4'-DDE			63U	81	2,000
Endrin			63U		42
Endosulfan II			63U		50,000
4,4'-DDD (p,p'-TDE)			63U		3,000
Endosulfan Sulfate			63U		50,000
4,4'-DDT			63U		2,000
Methoxychlor			310U		50,000
Endrin Ketone			63U		NA
Endrin Aldehyde			63U		NA
alpha-Chlordane			31U		NA
gamma-Chlordane			31U		NA
Mirex			63U		NA
Toxaphene			630U		100
Aroclor-1016			310U		29
Aroclor-1221			310U		29
Aroclor-1232			310U		29
Aroclor-1242			310U		29
Aroclor-1248			310U		29
Aroclor-1254			310U	210 J	29
Aroclor-1260			310U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				1,900 BN	14,000
Arsenic				13,100 N	8,000
Barium				135,000	700,000
Beryllium			30U		1,000
Cadmium				2,900	1,000
Chromium				94,800	33,000
Copper				72,200	28,000
Lead				95,600	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95		640	100
Nickel				29,800	20,900
Selenium				1,000	63,000
Silver				2,000 N	500
Thallium				1,600	2,000
Vanadium				82,200	370,000
Zinc				341,000	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		66,373	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				49.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				0.0	
Sieve #40				1.2	
Sieve #200				19.6	
Results in Relative %					
Silt				64.9	
Clay				14.2	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: SHI-2-95-C-5.1 Lab ID: SHI2C5 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/8/95			
Acetone			12U		100,000
Acrolein			120U		NA
Acrylonitrile			120U		1,000
Benzene			12U		1,000
Bromodichloromethane			12U		1,000
Bromoform			12U		1,000
Bromomethane			12U		1,000
2-Butanone (MEK)			12U		50,000
Carbon Tetrachloride			12U		1,000
2-Chloroethylvinylether			12U		NA
Chlorobenzene			12U		1,000
Chloroethane			12U		NA
Chloroform			12U		1,000
Chloromethane			12U		10,000
1,2-Dichloropropane			12U		10,000
1,1-Dichloroethane			12U		10,000
1,2-Dichloroethane			12U		1,000
1,1-Dichloroethene			12U		8,000
Dibromochloromethane			12U		1,000
1,2-trans Dichloroethylene			12U		50,000
1,2-cis Dichloroethene			12U		1,000
cis-1,3-Dichloropropene			12U		1,000
trans-1,3-Dichloropropene			12U		1,000
Ethylbenzene			12U		100,000
2-Hexanone			12U		NA
4-Methyl-2-Pentanone (MIBK)			12U		50,000
Methylene Chloride			12U	8 JB	1,000
Styrene			12U		23,000
Tetrachloroethylene			12U		1,000
1,1,2,2-Tetrachloroethane			12U		1,000
Toluene			12U		500,000
1,1,1-Trichloroethane			12U		50,000
1,1,2-Trichloroethane			12U		1,000
Trichloroethene (TCE)			12U		1,000
Vinyl Chloride			12U		2,000
Xylenes (Total)			12U		10,000
1,1,1,2-Tetrachloroethane			12U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/25/95			
Phenol			400U		50,000
bis(2-chloroethyl)ether			400U		660
2-Chlorophenol			400U		10,000
1,3-Dichlorobenzene			400U		100,000
1,4-Dichlorobenzene			400U		100,000
1,2-Dichlorobenzene			400U		50,000
2-Methylphenol			400U		2,800,000
bis(2-chloroisopropyl)ether			400U		10,000
4-Methylphenol			400U		2,800,000
N-Nitroso-di-n-propylamine			400U		660
Hexachloroethane			400U		6,000
Nitrobenzene			400U		10,000
Isophorone			400U		50,000
2-Nitrophenol			400U		NA
2,4-Dimethylphenol			400U		NA
2,4-Dichlorophenol			400U		10,000
1,2,4-Trichlorobenzene			400U		68,000
Naphthalene			400U		100,000
4-Chloroaniline			400U		230,000
Hexachlorobutadiene			400U		1,000
bis(2-Chloroethoxy)methane			400U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			400U		100,000
Hexachlorocyclopentadiene			400U		100,000
2,4,6-Trichlorophenol			400U		10,000
2,4,5-Trichlorophenol			2000U		50,000
2-Chloronaphthalene			400U		NA
Dimethyl phthalate			400U		50,000
Acenaphthylene			400U		44
2,6-Dinitrotoluene			400U		1,000
Acenaphthene			400U		16
2,4-Dinitrophenol			2000U		10,000
4-Nitrophenol			2000U		NA
2,4-Dinitrotoluene			400U		1,000
Diethylphthalate			400U		50,000
4-Chlorophenyl-phenylether			400U		NA
Fluorene			400U		18
4,6-Dinitro-2-methylphenol			2000U		NA
N-Nitrosodiphenylamine			400U		100,000
4-Bromophenyl-phenylether			400U		NA
Hexachlorobenzene			400U		660
Pentachlorophenol			2000U		6,000
Phenanthrene			400U		NA
Anthracene			400U		85
Di-n-butylphthalate			400U		100,000
Fluoranthene			400U		380
Pyrene			400U		290
Butylbenzylphthalate			400U		100,000
3,3'-Dichlorobenzidine			790U		2,000
Benzo(a)anthracene			400U		160
Chrysene			400U		220
Bis(2-Ethylhexyl)phthalate			400U	47 J	49,000
Di-n-octylphthalate			400U		100,000

Sample ID: SHI-2-95-C-5.1 Lab ID: SHI2C5 Sampling Date: 5/3/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			400U		900
Benzo(k)fluoranthene			400U		900
Benzo(a)pyrene (BaP)			400U	53 J	230
Indeno(1,2,3-cd)pyrene			400U		900
Dibenz(a,h)anthracene			400U		31
Benzo(g,h,i)perylene			400U		NA
N-nitrosodimethylamine			4000U		NA
Benzidine			4000U		NA
1,2-Diphenylhydrazine			4000U		NA
Benzyl Alcohol			400U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			10U		NA
beta-BHC			10U		NA
delta-BHC			10U		NA
gamma-BHC (Lindane)			10U		520
Heptachlor			10U		150
Aldrin			10U		40
Heptachlor Epoxide			10U		NA
Endosulfan I			10U		50,000
Dieldrin			19U		11
4,4'-DDE			19U		2,000
Endrin			19U		42
Endosulfan II			19U		50,000
4,4'-DDD (p,p'-TDE)			19U		3,000
Endosulfan Sulfate			19U		50,000
4,4'-DDT			19U		2,000
Methoxychlor			95U		50,000
Endrin Ketone			19U		NA
Endrin Aldehyde			19U		NA
alpha-Chlordane			10U		NA
gamma-Chlordane			10U		NA
Mirex			19U		NA
Toxaphene			190U		100
Aroclor-1016			95U		29
Aroclor-1221			95U		29
Aroclor-1232			95U		29
Aroclor-1242			95U		29
Aroclor-1248			95U		29
Aroclor-1254			95U		29
Aroclor-1260			95U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			400U	400 UN	14,000
Arsenic				1,100 N	8,000
Barium				14,000 B	700,000
Beryllium				50 B	1,000
Cadmium			30U		1,000
Chromium				5,000	33,000
Copper				1,200 B	28,000
Lead				1,800	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	120U		100
Nickel				3,900 B	20,900
Selenium			230U		63,000
Silver			70U	70 UN	500
Thallium				600 B	2,000
Vanadium				5,900	370,000
Zinc				9,600	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		1,048	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				16.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				10.7	
Sieve #40				67.4	
Sieve #200				19.3	
Results in Relative %					
Silt				0.4	
Clay				2.2	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SMII-1-95-C-0.0 Lab ID: SMII1C0 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/10/95			
Acetone			16U		100,000
Acrolein			160U		NA
Acrylonitrile			160U		1,000
Benzene			16U		1,000
Bromodichloromethane			16U		1,000
Bromoform			16U		1,000
Bromomethane			16U		1,000
2-Butanone (MEK)			16U		50,000
Carbon Tetrachloride			16U		1,000
2-Chloroethylvinylether			16U		NA
Chlorobenzene			16U		1,000
Chloroethane			16U		NA
Chloroform			16U		1,000
Chloromethane			16U		10,000
1,2-Dichloropropane			16U		10,000
1,1-Dichloroethane			16U		10,000
1,2-Dichloroethane			16U		1,000
1,1-Dichloroethene			16U		8,000
Dibromochloromethane			16U		1,000
1,2-trans Dichloroethylene			16U		50,000
1,2-cis Dichloroethene			16U		1,000
cis-1,3-Dichloropropene			16U		1,000
trans-1,3-Dichloropropene			16U		1,000
Ethylbenzene			16U		100,000
2-Hexanone			16U		NA
4-Methyl-2-Pentanone (MIBK)			16U		50,000
Methylene Chloride			16U	7 J	1,000
Styrene			16U		23,000
Tetrachloroethylene			16U		1,000
1,1,2,2-Tetrachloroethane			16U		1,000
Toluene			16U		500,000
1,1,1-Trichloroethane			16U		50,000
1,1,2-Trichloroethane			16U		1,000
Trichloroethene (TCE)			16U		1,000
Vinyl Chloride			16U		2,000
Xylenes (Total)			16U		10,000
1,1,1,2-Tetrachloroethane			16U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/26/95			
Phenol			540U		50,000
bis(2-chloroethyl)ether			540U		660
2-Chlorophenol			540U		10,000
1,3-Dichlorobenzene			540U		100,000
1,4-Dichlorobenzene			540U		100,000
1,2-Dichlorobenzene			540U		50,000
2-Methylphenol			540U		2,800,000
bis(2-chloroisopropyl)ether			540U		10,000
4-Methylphenol			540U		2,800,000
N-Nitroso-di-n-propylamine			540U		660
Hexachloroethane			540U		6,000
Nitrobenzene			540U		10,000
Isophorone			540U		50,000
2-Nitrophenol			540U		NA
2,4-Dimethylphenol			540U		NA
2,4-Dichlorophenol			540U		10,000
1,2,4-Trichlorobenzene			540U		68,000
Naphthalene			540U		100,000
4-Chloroaniline			540U		230,000
Hexachlorobutadiene			540U		1,000
bis(2-Chloroethoxy)methane			540U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			540U		100,000
Hexachlorocyclopentadiene			540U		100,000
2,4,6-Trichlorophenol			540U		10,000
2,4,5-Trichlorophenol			2700U		50,000
2-Chloronaphthalene			540U		NA
Dimethyl phthalate			540U		50,000
Acenaphthylene			540U		44
2,6-Dinitrotoluene			540U		1,000
Acenaphthene			540U		16
2,4-Dinitrophenol			2700U		10,000
4-Nitrophenol			2700U		NA
2,4-Dinitrotoluene			540U		1,000
Diethylphthalate			540U		50,000
4-Chlorophenyl-phenylether			540U		NA
Fluorene			540U		18
4,6-Dinitro-2-methylphenol			2700U		NA
N-Nitrosodiphenylamine			540U		100,000
4-Bromophenyl-phenylether			540U		NA
Hexachlorobenzene			540U		660
Pentachlorophenol			2700U		6,000
Phenanthrene			540U		NA
Anthracene			540U		85
Di-n-butylphthalate			540U	110 J	100,000
Fluoranthene			540U	76 J	380
Pyrene			540U	80 J	290
Butylbenzylphthalate			540U		100,000
3,3'-Dichlorobenzidine			1100U		2,000
Benzo(a)anthracene			540U		160
Chrysene			540U		220
Bis(2-Ethylhexyl)phthalate			540U	600	49,000
Di-n-octylphthalate			540U		100,000

Results of Bulk Sediment Analyses

Sample ID: SMII-1-95-C-0.0 Lab ID: SMII1C0 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			540U		900
Benzo(k)fluoranthene			540U		900
Benzo(a)pyrene (BaP)			540U		230
Indeno(1,2,3-cd)pyrene			540U		900
Dibenz(a,h)anthracene			540U		31
Benzo(g,h,i)perylene			540U		NA
N-nitrosodimethylamine			5400U		NA
Benzidine			5400U		NA
1,2-Diphenylhydrazine			5400U		NA
Benzyl Alcohol			540U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/11/95	05/24/95			
alpha-BHC			26U		NA
beta-BHC			26U		NA
delta-BHC			26U		NA
gamma-BHC (Lindane)			26U		520
Heptachlor			26U		150
Aldrin			26U		40
Heptachlor Epoxide			26U		NA
Endosulfan I			26U		50,000
Dieldrin			52U		11
4,4'-DDE			52U		2,000
Endrin			52U		42
Endosulfan II			52U		50,000
4,4'-DDD (p,p'-TDE)			52U	22J	3,000
Endosulfan Sulfate			52U		50,000
4,4'-DDT			52U		2,000
Methoxychlor			260U		50,000
Endrin Ketone			52U		NA
Endrin Aldehyde			52U		NA
alpha-Chlordane			26U		NA
gamma-Chlordane			26U		NA
Mirex			52U		NA
Toxaphene			520U		100
Aroclor-1016			260U		29
Aroclor-1221			260U		29
Aroclor-1232			260U		29
Aroclor-1242			260U		29
Aroclor-1248			260U		29
Aroclor-1254			260U		29
Aroclor-1260			260U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				960 BN	14,000
Arsenic				6,400 N	8,000
Barium				104,000	700,000
Beryllium			30U		1,000
Cadmium				390 B	1,000
Chromium				37,800	33,000
Copper				24,700	28,000
Lead				22,800	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	160U		100
Nickel				21,800	20,900
Selenium			300U		63,000
Silver				300 BN	500
Thallium				1,300 B	2,000
Vanadium				44,800	370,000
Zinc				98,600	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		15,806	NA
Cyanide		5/13/95, 5/16/95	0.81U		1,100
Moisture, in Percent				38.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				13.4	
Sieve #40				23.8	
Sieve #200				26.5	
Results in Relative %					
Silt				31.1	
Clay				5.3	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: SMH-1-95-C-1.4
Lab ID: SMH1CI
Sampling Date: 5/2/95

	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/10/95			
Acetone			12U		100,000
Acrolein			120U		NA
Acrylonitrile			120U		1,000
Benzene			12U		1,000
Bromodichloromethane			12U		1,000
Bromoform			12U		1,000
Bromomethane			12U		1,000
2-Butanone (MEK)			12U		50,000
Carbon Tetrachloride			12U		1,000
2-Chloroethylvinylether			12U		NA
Chlorobenzene			12U		1,000
Chloroethane			12U		NA
Chloroform			12U		1,000
Chloromethane			12U		10,000
1,2-Dichloropropane			12U		10,000
1,1-Dichloroethane			12U		10,000
1,2-Dichloroethane			12U		1,000
1,1-Dichloroethene			12U		8,000
Dibromochloromethane			12U		1,000
1,2-trans Dichloroethylene			12U		50,000
1,2-cis Dichloroethene			12U		1,000
cis-1,3-Dichloropropene			12U		1,000
trans-1,3-Dichloropropene			12U		1,000
Ethylbenzene			12U		100,000
2-Hexanone			12U		NA
4-Methyl-2-Pentanone (MIBK)			12U		50,000
Methylene Chloride			12U	9 J	1,000
Styrene			12U		23,000
Tetrachloroethylene			12U		1,000
1,1,2,2-Tetrachloroethane			12U		1,000
Toluene			12U		500,000
1,1,1-Trichloroethane			12U		50,000
1,1,2-Trichloroethane			12U		1,000
Trichloroethene (TCE)			12U		1,000
Vinyl Chloride			12U		2,000
Xylenes (Total)			12U		10,000
1,1,1,2-Tetrachloroethane			12U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/26/95			
Phenol			400U		50,000
bis(2-chloroethyl)ether			400U		660
2-Chlorophenol			400U		10,000
1,3-Dichlorobenzene			400U		100,000
1,4-Dichlorobenzene			400U		100,000
1,2-Dichlorobenzene			400U		50,000
2-Methylphenol			400U		2,800,000
bis(2-chloroisopropyl)ether			400U		10,000
4-Methylphenol			400U		2,800,000
N-Nitroso-di-n-propylamine			400U		660
Hexachloroethane			400U		6,000
Nitrobenzene			400U		10,000
Isophorone			400U		50,000
2-Nitrophenol			400U		NA
2,4-Dimethylphenol			400U		NA
2,4-Dichlorophenol			400U		10,000
1,2,4-Trichlorobenzene			400U		68,000
Naphthalene			400U		100,000
4-Chloroaniline			400U		230,000
Hexachlorobutadiene			400U		1,000
bis(2-Chloroethoxy)methane			400U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			400U		100,000
Hexachlorocyclopentadiene			400U		100,000
2,4,6-Trichlorophenol			400U		10,000
2,4,5-Trichlorophenol			2000U		50,000
2-Chloronaphthalene			400U		NA
Dimethyl phthalate			400U		50,000
Acenaphthylene			400U		44
2,6-Dinitrotoluene			400U		1,000
Acenaphthene			400U		16
2,4-Dinitrophenol			2000U		10,000
4-Nitrophenol			2000U		NA
2,4-Dinitrotoluene			400U		1,000
Diethylphthalate			400U		50,000
4-Chlorophenyl-phenylether			400U		NA
Fluorene			400U		18
4,6-Dinitro-2-methylphenol			2000U		NA
N-Nitrosodiphenylamine			400U		100,000
4-Bromophenyl-phenylether			400U		NA
Hexachlorobenzene			400U		660
Pentachlorophenol			2000U		6,000
Phenanthrene			400U		NA
Anthracene			400U		85
Di-n-butylphthalate			400U	48 J	100,000
Fluoranthene			400U		380
Pyrene			400U		290
Butylbenzylphthalate			400U		100,000
3,3'-Dichlorobenzidine			800U		2,000
Benzo(a)anthracene			400U		160
Chrysene			400U		220
Bis(2-Ethylhexyl)phthalate			400U	460	49,000
Di-n-octylphthalate			400U		100,000

Sample ID: SMH-1-95-C-1.4
Lab ID: SMH1C1
Sampling Date: 5/2/95

	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			400U		900
Benzo(k)fluoranthene			400U		900
Benzo(a)pyrene (BaP)			400U		230
Indeno(1,2,3-cd)pyrene			400U		900
Dibenz(a,h)anthracene			400U		31
Benzo(g,h,i)perylene			400U		NA
N-nitrosodimethylamine			4000U		NA
Benzidine			4000U		NA
1,2-Diphenylhydrazine			4000U		NA
Benzyl Alcohol			400U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/11/95	05/14/95			
alpha-BHC			10U		NA
beta-BHC			10U		NA
delta-BHC			10U		NA
gamma-BHC (Lindane)			10U		520
Heptachlor			10U		150
Aldrin			10U		40
Heptachlor Epoxide			10U		NA
Endosulfan I			10U		50,000
Dieldrin			19U		11
4,4'-DDE			19U		2,000
Endrin			19U		42
Endosulfan II			19U		50,000
4,4'-DDD (p,p'-TDE)			19U		3,000
Endosulfan Sulfate			19U		50,000
4,4'-DDT			19U		2,000
Methoxychlor			96U		50,000
Endrin Ketone			19U		NA
Endrin Aldehyde			19U		NA
alpha-Chlordane			10U		NA
gamma-Chlordane			10U		NA
Mirex			19U		NA
Toxaphene			190U		100
Aroclor-1016			96U		29
Aroclor-1221			96U		29
Aroclor-1232			96U		29
Aroclor-1242			96U		29
Aroclor-1248			96U		29
Aroclor-1254			96U		29
Aroclor-1260			96U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				520 BN	14,000
Arsenic				2,800 N	8,000
Barium				79,500	700,000
Beryllium			20U		1,000
Cadmium				90 B	1,000
Chromium				20,500	33,000
Copper				16,000	28,000
Lead				6,000	21,000
Mercury			120U		100
Nickel				14,800	20,900
Selenium			220U		63,000
Silver			60U	60 UN	500
Thallium				590 B	2,000
Vanadium				26,000	370,000
Zinc				29,200	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		2,386	NA
Cyanide		5/13/95, 5/16/95	0.60U		1,100
Moisture, in Percent				17.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				14.1	
Sieve #10				8.0	
Sieve #40				30.0	
Sieve #200				29.6	
Results in Relative %					
Silt				15.2	
Clay				3.1	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Sample ID: SMH-2-95-C-0.0-R1 Lab ID: SM2C01 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			12U		100,000
Acrolein			120U		NA
Acrylonitrile			120U		1,000
Benzene			12U		1,000
Bromodichloromethane			12U		1,000
Bromoform			12U		1,000
Bromomethane			12U		1,000
2-Butanone (MEK)			12U		50,000
Carbon Tetrachloride			12U		1,000
2-Chloroethylvinylether			12U		NA
Chlorobenzene			12U		1,000
Chloroethane			12U		NA
Chloroform			12U		1,000
Chloromethane			12U		10,000
1,2-Dichloropropane			12U		10,000
1,1-Dichloroethane			12U		10,000
1,2-Dichloroethane			12U		1,000
1,1-Dichloroethene			12U		8,000
Dibromochloromethane			12U		1,000
1,2-trans Dichloroethylene			12U		50,000
1,2-cis Dichloroethene			12U		1,000
cis-1,3-Dichloropropene			12U		1,000
trans-1,3-Dichloropropene			12U		1,000
Ethylbenzene			12U		100,000
?-Hexanone			12U		NA
-Methyl-2-Pentanone (MIBK)			12U		50,000
Methylene Chloride			12U	18	1,000
Styrene			12U		23,000
Tetrachloroethylene			12U		1,000
1,1,2,2-Tetrachloroethane			12U		1,000
Toluene			12U		500,000
1,1,1-Trichloroethane			12U		50,000
1,1,2-Trichloroethane			12U		1,000
Trichloroethene (TCE)			12U		1,000
Vinyl Chloride			12U		2,000
Xylenes (Total)			12U		10,000
1,1,1,2-Tetrachloroethane			12U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			400U		50,000
bis(2-chloroethyl)ether			400U		660
2-Chlorophenol			400U		10,000
1,3-Dichlorobenzene			400U		100,000
1,4-Dichlorobenzene			400U		100,000
1,2-Dichlorobenzene			400U		50,000
2-Methylphenol			400U		2,800,000
bis(2-chloroisopropyl)ether			400U		10,000
4-Methylphenol			400U		2,800,000
N-Nitroso-di-n-propylamine			400U		660
Hexachloroethane			400U		6,000
Nitrobenzene			400U		10,000
Isophorone			400U		50,000
2-Nitrophenol			400U		NA
2,4-Dimethylphenol			400U		NA
2,4-Dichlorophenol			400U		10,000
1,2,4-Trichlorobenzene			400U		68,000
Naphthalene			400U		100,000
4-Chloroaniline			400U		230,000
Hexachlorobutadiene			400U		1,000
bis(2-Chloroethoxy)methane			400U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			400U		100,000
Hexachlorocyclopentadiene			400U		100,000
2,4,6-Trichlorophenol			400U		10,000
2,4,5-Trichlorophenol			2000U		50,000
2-Chloronaphthalene			400U		NA
Dimethyl phthalate			400U		50,000
Acenaphthylene			400U		44
2,6-Dinitrotoluene			400U		1,000
Acenaphthene			400U		16
2,4-Dinitrophenol			2000U		10,000
4-Nitrophenol			2000U		NA
2,4-Dinitrotoluene			400U		1,000
Diethylphthalate			400U		50,000
4-Chlorophenyl-phenylether			400U		NA
Fluorene			400U		18
4,6-Dinitro-2-methylphenol			2000U		NA
N-Nitrosodiphenylamine			400U		100,000
4-Bromophenyl-phenylether			400U		NA
Hexachlorobenzene			400U		660
Pentachlorophenol			2000U		6,000
Phenanthrene			400U		NA
Anthracene			400U		85
Di-n-butylphthalate			400U	45 J	100,000
Fluoranthene			400U		380
Pyrene			400U		290
Butylbenzylphthalate			400U		100,000
3,3'-Dichlorobenzidine			790U		2,000
Benzo(a)anthracene			400U		160
Chrysene			400U		220
Bis(2-Ethylhexyl)phthalate			400U	230 J	49,000
Di-n-octylphthalate			400U		100,000

Sample ID: SMH-2-95-C-0.0-R1 Lab ID: SM2C01 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			400U		900
Benzo(k)fluoranthene			400U		900
Benzo(a)pyrene (BaP)			400U		230
Indeno(1,2,3-cd)pyrene			400U		900
Dibenz(a,h)anthracene			400U		31
Benzo(g,h,i)perylene			400U		NA
N-nitrosodimethylamine			4000U		NA
Benzidine			4000U		NA
1,2-Diphenylhydrazine			4000U		NA
Benzyl Alcohol			400U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95			
alpha-BHC			10U		NA
beta-BHC			10U		NA
delta-BHC			10U		NA
gamma-BHC (Lindane)			10U		520
Heptachlor			10U		150
Aldrin			10U		40
Heptachlor Epoxide			10U		NA
Endosulfan I			10U		50,000
Dieldrin			19U		11
4,4'-DDE			19U		2,000
Endrin			19U		42
Endosulfan II			19U		50,000
4,4'-DDD (p,p'-TDE)			19U	52	3,000
Endosulfan Sulfate			19U		50,000
4,4'-DDT		05/24/95 rerun	114U	570	2,000
Methoxychlor			95U		50,000
Endrin Ketone			19U		NA
Endrin Aldehyde			19U		NA
alpha-Chlordane			10U		NA
gamma-Chlordane			10U		NA
Mirex			19U		NA
Toxaphene			190U		100
Aroclor-1016			95U		29
Aroclor-1221			95U		29
Aroclor-1232			95U		29
Aroclor-1242			95U		29
Aroclor-1248			95U		29
Aroclor-1254			95U		29
Aroclor-1260			95U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony				600 BN	14,000
Arsenic				4,500 N	8,000
Barium				43,100	700,000
Beryllium			20U		1,000
Cadmium				160 B	1,000
Chromium				21,600	33,000
Copper				14,200	28,000
Lead				10,400	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	120U		100
Nickel				13,400	20,900
Selenium			210U		63,000
Silver			60U	60 UN	500
Thallium				800 B	2,000
Vanadium				32,800	370,000
Zinc				36,700	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		5000	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				16.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				0.0	
Sieve #10				5.9	
Sieve #40				29.2	
Sieve #200				40.8	
Results in Relative %					
Silt				24.1	
Clay				0.0	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Results of Bulk Sediment Analyses

Sample ID: SMH-2-95-C-0.0-R2 Lab ID: SM2C02 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/9/95			
Acetone			11U		100,000
Acrolein			110U		NA
Acrylonitrile			110U		1,000
Benzene			11U		1,000
Bromodichloromethane			11U		1,000
Bromoform			11U		1,000
Bromomethane			11U		1,000
2-Butanone (MEK)			11U		50,000
Carbon Tetrachloride			11U		1,000
2-Chloroethylvinylether			11U		NA
Chlorobenzene			11U		1,000
Chloroethane			11U		NA
Chloroform			11U		1,000
Chloromethane			11U		10,000
1,2-Dichloropropane			11U		10,000
1,1-Dichloroethane			11U		10,000
1,2-Dichloroethane			11U		1,000
1,1-Dichloroethene			11U		8,000
Dibromochloromethane			11U		1,000
1,2-trans Dichloroethylene			11U		50,000
1,2-cis Dichloroethene			11U		1,000
cis-1,3-Dichloropropene			11U		1,000
trans-1,3-Dichloropropene			11U		1,000
Ethylbenzene			11U		100,000
2-Hexanone			11U		NA
4-Methyl-2-Pentanone (MIBK)			11U		50,000
Methylene Chloride			11U	7 J	1,000
Styrene			11U		23,000
Tetrachloroethylene			11U		1,000
1,1,2,2-Tetrachloroethane			11U		1,000
Toluene			11U		500,000
1,1,1-Trichloroethane			11U		50,000
1,1,2-Trichloroethane			11U		1,000
Trichloroethene (TCE)			11U		1,000
Vinyl Chloride			11U		2,000
Xylenes (Total)			11U		10,000
1,1,1,2-Tetrachloroethane			11U		1,000
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 14 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			370U		50,000
bis(2-chloroethyl)ether			370U		660
2-Chlorophenol			370U		10,000
1,3-Dichlorobenzene			370U		100,000
1,4-Dichlorobenzene			370U		100,000
1,2-Dichlorobenzene			370U		50,000
2-Methylphenol			370U		2,800,000
bis(2-chloroisopropyl)ether			370U		10,000
4-Methylphenol			370U		2,800,000
N-Nitroso-di-n-propylamine			370U		660
Hexachloroethane			370U		6,000
Nitrobenzene			370U		10,000
Isophorone			370U		50,000
2-Nitrophenol			370U		NA
2,4-Dimethylphenol			370U		NA
2,4-Dichlorophenol			370U		10,000
1,2,4-Trichlorobenzene			370U		68,000
Naphthalene			370U		100,000
4-Chloroaniline			370U		230,000
Hexachlorobutadiene			370U		1,000
bis(2-Chloroethoxy)methane			370U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			370U		100,000
Hexachlorocyclopentadiene			370U		100,000
2,4,6-Trichlorophenol			370U		10,000
2,4,5-Trichlorophenol			1800U		50,000
2-Chloronaphthalene			370U		NA
Dimethyl phthalate			370U		50,000
Acenaphthylene			370U		44
2,6-Dinitrotoluene			370U		1,000
Acenaphthene			370U		16
2,4-Dinitrophenol			1800U		10,000
4-Nitrophenol			1800U		NA
2,4-Dinitrotoluene			370U		1,000
Diethylphthalate			370U		50,000
4-Chlorophenyl-phenylether			370U		NA
Fluorene			370U		18
4,6-Dinitro-2-methylphenol			1800U		NA
N-Nitrosodiphenylamine			370U		100,000
4-Bromophenyl-phenylether			370U		NA
Hexachlorobenzene			370U		660
Pentachlorophenol			1800U		6,000
Phenanthrene			370U		NA
Anthracene			370U		85
Di-n-butylphthalate			370U	48 J	100,000
Fluoranthene			370U		380
Pyrene			370U		290
Butylbenzylphthalate			370U		100,000
3,3'-Dichlorobenzidine			730U		2,000
Benzo(a)anthracene			370U		160
Chrysene			370U		220
Bis(2-Ethylhexyl)phthalate			370U	200 J	49,000
Di-n-octylphthalate			370U		100,000

Results of Bulk Sediment Analyses

Sample ID: SMH-2-95-C-0.0-R2 Lab ID: SM2C02 Sampling Date: 5/2/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg DW	Result ug/kg DW	Bulk Sediment Criteria ug/kg
Benzo(b)fluoranthene			370U		900
Benzo(k)fluoranthene			370U		900
Benzo(a)pyrene (BaP)			370U		230
Indeno(1,2,3-cd)pyrene			370U		900
Dibenz(a,h)anthracene			370U		31
Benzo(g,h,i)perylene			370U		NA
N-nitrosodimethylamine			3700U		NA
Benzidine			3700U		NA
1,2-Diphenylhydrazine			3700U		NA
Benzyl Alcohol			370U		50,000
PESTICIDES/PCBS (SW846 8080):					
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/13/95			
alpha-BHC			9U		NA
beta-BHC			9U		NA
delta-BHC			9U		NA
gamma-BHC (Lindane)			9U		520
Heptachlor			9U		150
Aldrin			9U		40
Heptachlor Epoxide			9U		NA
Endosulfan I			9U		50,000
Dieldrin			18U		11
4,4'-DDE			18U		2,000
Endrin			18U		42
Endosulfan II			18U		50,000
4,4'-DDD (p,p'-TDE)			18U		3,000
Endosulfan Sulfate			18U		50,000
4,4'-DDT			18U		2,000
Methoxychlor			88U		50,000
Endrin Ketone			18U		NA
Endrin Aldehyde			18U		NA
alpha-Chlordane			9U		NA
gamma-Chlordane			9U		NA
Mirex			18U		NA
Toxaphene			180U		100
Aroclor-1016			88U		29
Aroclor-1221			88U		29
Aroclor-1232			88U		29
Aroclor-1242			88U		29
Aroclor-1248			88U		29
Aroclor-1254			88U		29
Aroclor-1260			88U		29
INORGANICS - TOTAL METALS (SW846 6000/7000):	5/16/95	5/18/95, 5/24/95			
Holding time: 6 months (Hg 14 days)	all except Hg	all except Hg			
Antimony			360U	360 UN	14,000
Arsenic				1,400 N	8,000
Barium				53,000	700,000
Beryllium			20U		1,000
Cadmium			30U		1,000
Chromium				9,100	33,000
Copper				8,000	28,000
Lead				1,600	21,000
Mercury	5/22/95, 5/23/95	5/22/95, 5/24/95	110U		100
Nickel				7,700	20,900
Selenium			210U		63,000
Silver				90 BN	500
Thallium				810 B	2,000
Vanadium				24,600	370,000
Zinc				22,200	68,000
INORGANICS - OTHER (Results in mg/kg DW):					
Total Organic Carbon (LOI)		5/19/95, 5/23/95		648	NA
Cyanide		5/13/95, 5/16/95	0.5U		1,100
Moisture, in Percent				9.00	NA
GRAIN SIZE:					
Results in % Recovery		5/26/95, 5/27/95			
Sieve #4				14.5	
Sieve #10				20.4	
Sieve #40				33.1	
Sieve #200				21.0	
Results in Relative %					
Silt				2.5	
Clay				8.5	

Definitions:
NA - Not Available
ug/kg - micrograms per kilogram, parts per billion
mg/kg - milligrams per kilogram, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
DW - Dry weight corrected
D - Result obtained on diluted sample
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Table 4.0 ...ank Analytical Results

Lab ID: Sample ID: Sampling Date:	MDL (ug/L)	TB0424 Lab Provided Trip Blank 4/24/95	TB0430 Trip Blank 4/30/95	TB0501 Trip Blank 5/01/95	TB0502 Trip Blank 5/02/95	TB0504 Trip Blank 5/4/95	TB0504A Trip Blank 5/4/95-pm
VOLATILE ORGANICS (Results in ug/L): SW846 8240, Holding Time: 14 days Date Analyzed:		05/16/95	05/04/95	05/06/95	05/06/95	05/16/95	05/08/95
Acetone	10U	10U	10U	10U	10U	36	15
Acrolein	100U	100U	100U	100U	100U	100U	100U
Acrylonitrile	100U	100U	100U	100U	100U	100U	100U
Benzene	10U	10U	10U	10U	10U	10U	10U
Bromodichloromethane	10U	10U	10U	10U	10U	10U	10U
Bromoform	10U	10U	10U	10U	10U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U
2-Butanone (MEK)	10U	10U	10U	10U	10U	10U	10U
Carbon Tetrachloride	10U	10U	10U	10U	10U	10U	10U
2-Chloroethylvinylether	10U	10U	10U	10U	10U	10U	10U
Chlorobenzene	10U	10U	10U	10U	10U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	10U	10U	10U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloropropane	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethene	10U	10U	10U	10U	10U	10U	10U
Dibromochloromethane	10U	10U	10U	10U	10U	10U	10U
1,2-trans Dichloroethylene	10U	10U	10U	10U	10U	10U	10U
1,2-cis Dichloroethene	10U	10U	10U	10U	10U	10U	10U
cis-1,3-Dichloropropene	10U	10U	10U	10U	10U	10U	10U
trans-1,3-Dichloropropene	10U	10U	10U	10U	10U	10U	10U
Ethylbenzene	10U	10U	10U	10U	10U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-Pentanone (MIBK)	10U	10U	10U	10U	10U	10U	10U
Methylene Chloride	10U	2JB	5JB	3JB	3JB	4JB	2JB
Styrene	10U	10U	10U	10U	10U	10U	10U
Tetrachloroethylene	10U	10U	10U	10U	10U	10U	10U
1,1,2,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U
Toluene	10U	10U	10U	10U	10U	10U	10U
1,1,1-Trichloroethane	10U	10U	10U	10U	10U	10U	10U
1,1,2-Trichloroethane	10U	10U	10U	10U	10U	10U	10U
Trichloroethene (TCE)	10U	10U	10U	10U	10U	10U	10U
Vinyl Chloride	10U	10U	10U	10U	10U	10U	10U
Xylenes (Total)	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U

Definitions:

ug/L - micrograms per Liter, parts per billion
U - Undetected
J - Estimated value
B - Detected in laboratory blank

Results of Elutriate and River Water Analyses

Sample ID: BPO-1-95-C-0.0 Lab ID: BPO1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/13/95			
Acetone			10U	12O	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	5 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U	2 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	3 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	2 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: BPO-1-95-C-0.0 Lab ID: BPO1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/18/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: BPO-1-95-C-0.0 Lab ID: BPO1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/12/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	79,300	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	51.8 N	360
Barium			7.9U	599 N*	20,500
Beryllium			0.20U	1.3 B	NA
Boron			34.9U	186	8050
Cadmium			0.30U	3.1 B	1.79
Chromium III			1U	318	984.32
Cobalt			2.1U	64.8 E	95
Copper			0.9U	201 N*	9.22
Lead			2.1U	314 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	1.2	2.4
Nickel			3.8U	129 EN	789.01
Selenium			2.1U	6.6 N	20
Silver			0.60U	4.2 BN	0.92
Thallium			3.4U	5.4 BN	65
Vanadium			1.2U	214 EN	515
Zinc			2.1U	1070 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	1770 *	750
Antimony			3.6U		88
Arsenic			1.6U	7.8 B	360
Barium			7.9U	379	20,500
Beryllium			0.20U		NA
Boron			34.9U	191	8050
Cadmium			0.30U		1.79
Chromium III			1U	8	984.32
Cobalt			2.1U	2.8 B	95
Copper			0.9U	67.6 *	9.22
Lead			2.1U	20.6	33.78
Mercury	05/24/95	05/31/95	0.20U	1.2	2.4
Nickel			3.8U	4.9 B	789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	14.0 B	515
Zinc			2.1U	137	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	2980	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	24	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: BPO-1-95-C-6.2 Lab ID: BPO1C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/13/95			
Acetone			10U	37	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,300
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	110 B	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: BPO-1-95-C-6.2 Lab ID: BPO1C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		133
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	1 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/18/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: BPO-1-95-C-6.2 Lab ID: BPO1C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.01OU		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/12/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	53,600	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	17.2 N	360
Barium			7.9U	415 N*	20,500
Beryllium			0.20U	12.7	NA
Boron			34.9U	112	8050
Cadmium			0.30U	0.64 B	1.79
Chromium III			1U	271	984.32
Cobalt			2.1U	32.4 BE	95
Copper			0.9U	314 N*	9.22
Lead			2.1U	134 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	85.2 EN	789.01
Selenium			2.1U	5.6 N	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	267 EN	515
Zinc			2.1U	464 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	573 *	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	296	20,500
Beryllium			0.20U	0.55 B	NA
Boron			34.9U	121	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	86.3 *	9.22
Lead			2.1U	6.6	33.78
Mercury	05/24/95	05/31/95	0.20U	0.51	2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	8.2 B	515
Zinc			2.1U	76.6	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	2300	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	24	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample not within control limits
Blank spaces represent non-detected compounds.

Sample ID: BPO-2-95-C-0.0 Lab ID: BPO2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/13/95			
Acetone		05/15/95 rerun	10U	340 D	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		13,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			50U	15 JBD	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3190
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1035
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	2 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	3 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: BPO-2-95-C-0.0 Lab ID: BPO2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,390
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.3
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	J J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benz-/a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/18/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: BPO-2-95-C-0.0 Lab ID: BPO2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/12/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	24,300	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	16.2 N	360
Barium			7.9U	215 N*	20,500
Beryllium			0.20U		NA
Boron			34.9U	125	8050
Cadmium			0.30U	0.66 B	1.79
Chromium III			1U	73	984.32
Cobalt			2.1U	18.8 BE	95
Copper			0.9U	62.1 N*	9.22
Lead			2.1U	69.6 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	34.9 BEN	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	1.9 BN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	52.7 EN	515
Zinc			2.1U	262 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	478 *	750
Antimony			3.6U		88
Arsenic			1.6U	6.4 B	360
Barium			7.9U	392	20,500
Beryllium			0.20U		NA
Boron			34.9U	160	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	51.3 *	9.22
Lead			2.1U	3.8 B	33.78
Mercury	05/24/95	05/31/95	0.20U	0.68	2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	4.6 B	515
Zinc			2.1U	106 *	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	328	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
D - Compound identified at a secondary dilution factor

Blank spaces represent non-detected compounds.

Sample ID: BPO-2-95-C-4.1 Lab ID: BP02C4 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days		05/15/95			
Acetone			10U	58	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	3 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: BPO-2-95-C-4.1 Lab ID: BPO2C4 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,390
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	19	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.04 J	0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: BPO-2-95-C-4.1 Lab ID: BPO2C4 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	74,300	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	53.2 N	360
Barium			7.9U	928 N*	20,500
Beryllium			0.20U	2.0 B	NA
Boron			34.9U	117	8050
Cadmium			0.30U	8.7	1.79
Chromium III			1U	448	984.32
Cobalt			2.1U	88.1 E	95
Copper			0.9U	395 N*	9.22
Lead			2.1U	529 N*	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	1.6	2.4
Nickel			3.8U	160 EN	789.01
Selenium			2.1U	7.7 N	20
Silver			0.60U	10.6 N	0.92
Thallium			3.4U	6.1 BN	65
Vanadium			1.2U	269 EN	515
Zinc			2.1U	1370 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	1390 *	750
Antimony			3.6U		88
Arsenic			1.6U	5.6 B	360
Barium			7.9U	272	20,500
Beryllium			0.20U	0.39 B	NA
Boron			34.9U	160	8050
Cadmium			0.30U	0.46 B	1.79
Chromium III			1U	9	984.32
Cobalt			2.1U	5.3 B	95
Copper			0.9U	184 *	9.22
Lead			2.1U	26.7	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U	8.4 B	789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	15.7 B	515
Zinc			2.1U	154	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	22	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	1740	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	22	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	24	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: BST-1-95-C-1.0 Lab ID: BST1C3 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/8/95			
Acetone			10U	27	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	7 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/20/95 and 05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		1
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		13
Benzyl Alcohol			10U		NA

Sample ID: BST-1-95-C-1.0 Lab ID: BSTIC3 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	5 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	7 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		1
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	3 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U	1 J	NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: BST-1-95-C-1.0 Lab ID: BST1C3 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time:	05/09/95	05/22/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/15/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	19,300	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	4.0 BN	360
Barium			7.9U	170 B	20,500
Beryllium			0.20U	2.1 B	NA
Boron			34.9U	121	8050
Cadmium			0.30U	0.34 B	1.79
Chromium III			1U	46	984.32
Cobalt			2.1U	16.1 B	95
Copper			0.9U	56.4 *	9.22
Lead			2.1U	28.6 *	33.78
Mercury	05/24/95	05/31/95	0.20U	*	2.4
Nickel			3.8U	31.2 B	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	0.60 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	45.1 B	515
Zinc			2.1U	179 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	174 BEN*	750
Antimony			3.6U		88
Arsenic			1.6U	1.7 B	360
Barium			7.9U	224	20,500
Beryllium			0.20U		NA
Boron			34.9U	226	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	40.3 N*	9.22
Lead			2.1U	2.1 UN*	33.78
Mercury	05/24/95	05/31/95	0.20U	0.64	2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	2.1 B	515
Zinc			2.1U	178 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	18	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	442	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	17	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: BST-1-95-C-3.75 Lab ID: BST1C5 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/8/95			
Acetone			10U	24	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	7 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/20/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,390
Diethylphthalate			10U	1 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		293
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		293
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: BST-1-95-C-3.75 Lab ID: BST1C5 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U	1 J	NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U	2 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	6 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	7 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	6 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: BST-1-95-C-3.75 Lab ID: BST1C5 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/22/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/15/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	2200	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	1.6 UN	360
Barium			7.9U	51.0 B	20,500
Beryllium			0.20U	1.5 B	NA
Boron			34.9U	84.7 B	8050
Cadmium			0.30U		1.79
Chromium III			1U	9	984.32
Cobalt			2.1U	2.2 B	95
Copper			0.9U	12.8 B*	9.22
Lead			2.1U	2.4 B*	33.78
Mercury	05/24/95	05/31/95	0.20U	*	2.4
Nickel			3.8U	5.2 B	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	25.9 B	515
Zinc			2.1U	28.9 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	177 BEN*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	89.6 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	66.2 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	3.8 BN	9.22
Lead			2.1U	2.1 UN*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	1.3 B	515
Zinc			2.1U	35.3 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	20	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	488	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	20	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	4	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analysis

Sample ID: BST-2-95-C-0.0 Lab ID: BST2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/16/95			
Acetone			10U	35	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		250
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		13
Benzyl Alcohol			10U		NA

Sample ID: BST-2-95-C-0.0 Lab ID: BST2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		360
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 JB	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: BST-2-95-C-0.0 Lab ID: BST2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/26/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	78,300	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	28.1 N	360
Barium			7.9U	626 N*	20,500
Beryllium			0.20U	0.65 B	NA
Boron			34.9U	156	8050
Cadmium			0.30U	1.3 B	1.79
Chromium III			1U	198	984.32
Cobalt			2.1U	51.5 E	95
Copper			0.9U	106 N*	9.22
Lead			2.1U	85.8 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	0.29	2.4
Nickel			3.8U	108 EN	789.01
Selenium			2.1U	9.8 N	20
Silver			0.60U	2.2 BN	0.92
Thallium			3.4U	6.9 BN	65
Vanadium			1.2U	167 EN	515
Zinc			2.1U	462 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	136 B*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	18.7 B	20,500
Beryllium			0.20U		NA
Boron			34.9U		8050
Cadmium			0.30U	1.4 B	1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	449 *	9.22
Lead			2.1U	11.7	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U		515
Zinc			2.1U	127	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	11	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	2320	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	10	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U	0.2	19
Total Suspended Solids		05/12/95	1U	4	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: BST-2-95-C-0.75 Lab ID: BST2C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/16/95			
Acetone			10U	29	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	3 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: BST-2-95-C-0.75 Lab ID: BST2C1 *Elutriate Prep Date: 05/09/95*	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.35
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: BST-2-95-C-0.75 Lab ID: BST2C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/26/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	7,040	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	5.5 BN	360
Barium			7.9U	143 BN*	20,500
Beryllium			0.20U	6.4	NA
Boron			34.9U	125	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U	16.9 BE	95
Copper			0.9U	65.4 N*	9.22
Lead			2.1U	11.0 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	18.7 BEN	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	0.6 UN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	83.1 EN	515
Zinc			2.1U	262 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	149 B*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	157 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	50.6 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U	2.2 B	95
Copper			0.9U	249 *	9.22
Lead			2.1U	7.8	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	1.8 B	515
Zinc			2.1U	75.1	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	17	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	3200	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	17	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U	0.3	19
Total Suspended Solids		05/12/95	1U	4	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: CRC-1-95-C-0.0 Lab ID: CRC1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/13/95			
Acetone			10U	39	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		13,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	6 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U	8 J	1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: CRC-1-95-C-0.0 Lab ID: CRC1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U	1 JB	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 JB	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/18/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: CRC-1-95-C-0.0 Lab ID: CRC1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	18,500	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	14.7 N	360
Barium			7.9U	236 N*	20,500
Beryllium			0.20U	0.54 B	NA
Boron			34.9U	193	8050
Cadmium			0.30U	2.1 B	1.79
Chromium III			1U	82	984.32
Cobalt			2.1U	21.2 BE	95
Copper			0.9U	93.7 N*	9.22
Lead			2.1U	118 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	35.2 BEN	789.01
Selenium			2.1U	3.7 BN	20
Silver			0.60U	3.2 BN	0.92
Thallium			3.4U	4.4 BN	65
Vanadium			1.2U	52.1 EN	315
Zinc			2.1U	389 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	294 *	750
Antimony			3.6U		88
Arsenic			1.6U	3.6 B	360
Barium			7.9U	432	20,500
Beryllium			0.20U		NA
Boron			34.9U	187	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	37.8 *	9.22
Lead			2.1U	3.4 B	33.78
Mercury	05/24/95	05/31/95	0.20U	0.49	2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	5.0 B	315
Zinc			2.1U	136	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	22	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	1280	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	20	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
N - Spiked sample recovery not within control limits
E - Estimated value because of presence of interference
Blank spaces represent non-detected compounds.

Sample ID: CRC-1-95-C-3.5 Lab ID: CRC1C3 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/13/95			
Acetone			10U	46	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,3-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	6 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	2 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		590
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: CRC-1-95-C-3.5 Lab ID: CRC1C3 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		83
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		293
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/18/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.04 J	0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: CRC-1-95-C-3.5 Lab ID: CRC1C3 *Elutriate Prep Date: 05/08/95*	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time:	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	140,000	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	76.2 N	360
Barium			7.9U	749 N*	20,500
beryllium			0.20U	9.0	NA
boron			34.9U	135	8050
Cadmium			0.30U	4.8 B	1.79
Chromium III			1U	458	984.32
Cobalt			2.1U	101 B	95
Copper			0.9U	503 N*	9.22
Lead			2.1U	419 E*	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	1.7	2.4
Nickel			3.8U	165 EN	789.01
Selenium			2.1U	10.2 N	20
Silver			0.60U	1.4 BN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	721 EN	515
Zinc			2.1U	805 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	1980 *	750
Antimony			3.6U		88
Arsenic			1.6U	6.7 B	360
barium			7.9U	830	20,500
beryllium			0.20U	0.38 B	NA
boron			34.9U	366	8050
Cadmium			0.30U	0.79 B	1.79
Chromium III			1U	14	984.32
Cobalt			2.1U	2.6 B	95
Copper			0.9U	69.0 *	9.22
Lead			2.1U	39.8 *	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U	7.2 B	789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	14.5 B	515
Zinc			2.1U	237	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	22	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	3320	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	22	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	12	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: CRC-2-95-C-0.0 Lab ID: CRC2C0 Elutriate Prep. Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):	—	5/8/95			
Holding time: 14 days			10U	71	446,000
Acetone			100U		455
Acrolein			100U		645
Acrylonitrile			10U		640
Benzene			10U		NA
Bromodichloromethane			10U		1825
Bromoform			10U		NA
Bromomethane			10U		161,000
2-Butanone (MEK)			10U		2780
Carbon Tetrachloride			10U		17,500
2-Chloroethylvinylether			10U		1180
Chlorobenzene			10U		NA
Chloroethane			10U		1945
Chloroform			10U		NA
Chloromethane			10U		10,825
1,2-Dichloropropane			10U		NA
1,1-Dichloroethane			10U		13,440
1,2-Dichloroethane			10U		7460
1,1-Dichloroethene			10U		6750
Dibromochloromethane			10U		1000
1,2-trans Dichloroethylene			10U		305
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		2900
trans-1,3-Dichloropropene			10U		21,400
Ethylbenzene			10U		26,000
2-Hexanone			10U		11,840
4-Methyl-2-Pentanone (MIBK)			10U	9 JB	NA
Methylene Chloride			10U		695
Styrene			10U		1040
Tetrachloroethylene			10U		NA
1,1,1,2-Tetrachloroethane			10U		1040
1,1,2,2-Tetrachloroethane			10U		1650
Toluene			10U		3025
1,1,1-Trichloroethane			10U		3390
1,1,2-Trichloroethane			10U		2250
Trichloroethene (TCE)			10U		NA
Vinyl Chloride			10U		1055
Xylenes (Total)					
SEMIVOLATILE ORGANICS (SW846 8270):	05/10/95	05/20/95			
Holding time: 7 days to extract, 40 days to analyze			10U	2 J	100
Phenol			10U		30,000
bis(2-chloroethyl)ether			10U		560
2-Chlorophenol			10U		345
1,3-Dichlorobenzene			10U		730
1,4-Dichlorobenzene			10U		820
1,2-Dichlorobenzene			10U		NA
2-Methylphenol			10U		4,545
bis(2-chloroisopropyl)ether			10U	4 J	NA
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		60
Hexachloroethane			10U		4,040
Nitrobenzene			10U	1 J	10,400
Isophorone			10U		8,000
2-Nitrophenol			10U	2 J	660
2,4-Dimethylphenol			10U		1,685
2,4-Dichlorophenol			10U		130
1,2,4-Trichlorobenzene			10U		135
Naphthalene			10U		NA
4-Chloroaniline			10U		10
Hexachlorobutadiene			10U		NA
bis(2-Chloroethoxy)methane			10U		155
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		5
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			50U		100
2,4,5-Trichlorophenol			10U		NA
2-Chloronaphthalene			10U		2,475
Dimethyl phthalate			10U		NA
Acenaphthylene			10U		590
2,6-Dinitrotoluene			10U		85
Acenaphthene			50U		655
2,4-Dinitrophenol			50U		2,335
4-Nitrophenol			10U		1,590
2,4-Dinitrotoluene			10U		4,000
Diethylphthalate			10U		NA
4-Chlorophenyl-phenylether			10U		NA
Fluorene			50U		NA
4,6-Dinitro-2-methylphenol			10U		295
N-Nitrosodiphenylamine			10U		270
4-Bromophenyl-phenylether			10U		NA
Hexachlorobenzene			50U		e(1.005(pH)-4.830)
Pentachlorophenol			10U		5
Phenanthrene			10U		NA
Anthracene			10U		105
Di-n-butyl phthalate			10U		200
Fluoranthene			10U		NA
Pyrene			10U		140
Butylbenzyl phthalate			20U		NA
3,3'-Dichlorobenzidine			1U		0.5
Benzo(a)anthracene			10U		NA
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		100
Di-n-octyl phthalate			10U		NA
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			100U		17,100
N-nitrosodimethylamine			100U		295
Benzidine			100U		15
1,2-Diphenyl-n-hydrazine			10U		NA
Benzyl Alcohol					

Sample ID: CRC-2-95-C-0.0 Lab ID: CRC2C0 Elutriate Prep. Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	7 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	9 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,535
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.12	0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: CRC-2-95-C-0.0 Lab ID: CRC2C0 *Elutriate Prep. Date: 05/06/95*	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/15/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	103,000	750
Antimony			3.6U	7.4 BN	88
Arsenic			1.6U	68.3 N	360
Barium			7.9U	1920	20,500
Beryllium			0.20U	5.7	NA
Boron			34.9U	68.6 B	8050
Cadmium			0.30U	29.7	1.79
Chromium III			1U	948	984.32
Cobalt			2.1U	115	95
Copper			0.9U	866 N*	9.22
Lead			2.1U	1100 N*	33.78
Mercury	05/24/95	05/31/95	0.20U	3.7 *	2.4
Nickel			3.8U	214	789.01
Selenium			2.1U	14.2 N	20
Silver			0.60U	210 N	0.92
Thallium			3.4U	6.2 B	65
Vanadium			1.2U	329	515
Zinc			2.1U	4970 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	8280 EN*	750
Antimony			3.6U		88
Arsenic			1.6U	10.2	360
Barium			7.9U	574	20,500
Beryllium			0.20U		NA
Boron			34.9U	311	8050
Cadmium			0.30U	2.5 B	1.79
Chromium III			1U	113	984.32
Cobalt			2.1U	11.3 B	95
Copper			0.9U	119 N	9.22
Lead			2.1U	122 N*	33.78
Mercury	05/24/95	05/31/95	0.20U	7.7	2.4
Nickel			3.8U	22.0 B	789.01
Selenium			2.1U	3.4 B	20
Silver			0.60U	37.2 N	0.92
Thallium			3.4U		65
Vanadium			1.2U	67.8	515
Zinc			2.1U	520 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	18	86,000
Chromium VI		05/09/95, 05/10/9	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/9	0.1U		19
Total Suspended Solids		05/12/95	1U	5440	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	18	86,000
Chromium VI		05/09/95, 05/10/9	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/9	0.1U		19
Total Suspended Solids		05/12/95	1U	36	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: CRC-2-95-C-4.5 Lab ID: CRC2C4 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days		5/8/95			
Acetone			10U	18	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	6 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3350
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/20/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: CRC-2-95-C-4.5 Lab ID: CRC2C4 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	7 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	11	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		590
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	12	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
					80
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: CRC-2-95-C-4.5 Lab ID: CRC2C4 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time:		05/15/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time:		05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	37,800	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	16.8 N	360
Barium			7.9U	360 N	20,500
Beryllium			0.20U		NA
Boron			34.9U	52.4 B	8050
Cadmium			0.30U	1.9 B	1.79
Chromium III			1U	122	984.32
Cobalt			2.1U	28.0 B	95
Copper			0.9U	65.6 *	9.22
Lead			2.1U	71.2 *	33.78
Mercury	05/24/9534843	05/31/95	0.20U	*	2.4
Nickel			3.8U	58.3	789.01
Selenium			2.1U	3.3 BN	20
Silver			0.60U	1.8 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	105	515
Zinc			2.1U	386 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	731 EN*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	213	20,500
Beryllium			0.20U		NA
Boron			34.9U	292	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	39.8 N	9.22
Lead			2.1U	2.1 UN*	33.78
Mercury	05/24/95	05/31/95	0.20U	0.3	2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	3.8 B	515
Zinc			2.1U	247 EN*	65.04
INORGANICS - OTHER (Results in mg/L):		05/22/95	1U	20	86,000
Chloride		05/09/95, 05/10/9	0.01U		NA
Chromium VI		05/11/95	0.01U		22
Cyanide		05/09/95, 05/10/9	0.1U		19
Total Residual Chlorine		05/12/95	1U	1160	NA
Total Suspended Solids					
DISS. INORGANICS - OTHER (Results in mg/L):		05/22/95	1U	20	86,000
Chloride		05/09/95, 05/10/9	0.01U		NA
Chromium VI		05/11/95, 05/22/9	0.01U		22
Cyanide		05/09/95, 05/10/9	0.1U		19
Total Residual Chlorine		05/12/95	1U	12	NA
Total Suspended Solids					

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: CRC-2-95-C-7.4 Lab ID: CRC2C7 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/8/95			
Acetone			10U	50	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	5 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,2,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/20/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone		05/31/95 rerun	20U	120 D	10,400
2-Nitrophenol		05/31/95 rerun	20U	5 JD	8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-octyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: CRC-2-95-C-7.4 Lab ID: CRC2C7 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	3 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	3 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	20	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: CRC-2-95-C-7.4 Lab ID: CRC2C7 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/15/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	206,000	750
Antimony			3.6U	7.8 BN	88
Arsenic			1.6U	70.3 N	360
Barium			7.9U	1880	20,500
Beryllium			0.20U		NA
Boron			34.9U	174	8050
Cadmium			0.30U	5.3	1.79
Chromium III			1U	307	984.32
Cobalt			2.1U	153	95
Copper			0.9U	172*	9.22
Lead			2.1U	138*	33.78
Mercury	05/24/95	05/31/95	0.20U	0.26 *	2.4
Nickel			3.8U	295	789.01
Selenium			2.1U	4.1 BN	20
Silver			0.60U	2.4 BN	0.92
Thallium			3.4U	10.2	65
Vanadium			1.2U	451	515
Zinc			2.1U	1570 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	1090 EN*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	13.4 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	35.0 B	8050
Cadmium			0.30U	0.50 B	1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	25.5 N	9.22
Lead			2.1U	3.4 BN*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	3.6 B	515
Zinc			2.1U	23.2 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	14	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	11,000	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	13	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	12	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: PAT-1-95-C-0.0 Lab ID: PAT1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/13/95			
Acetone			10U	71	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	11 B	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	2 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		13
Benzyl Alcohol			10U		NA

Sample ID: PAT-1-95-C-0.0 Lab ID: PAT1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	3 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	7 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	29	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.26	0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U	0.56	2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: PAT-1-95-C-0.0 Lab ID: PAT1C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time:		05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time:		05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	46,900	750
Antimony			3.6U	10.9 BN	88
Arsenic			1.6U	39.8 N	360
Barium			7.9U	695	20,500
Beryllium			0.20U	4.2 B	NA
Boron			34.9U	182	8050
Cadmium			0.30U	16.1	1.79
Chromium III			1U	418	984.32
Cobalt			2.1U	38.7 B	95
Copper			0.9U	360 *	9.22
Lead			2.1U	578 *	33.78
Mercury	05/24/95	05/31/95	0.20U	1.4 *	2.4
Nickel			3.8U	83.7	789.01
Selenium			2.1U	6.0 N	20
Silver			0.60U	11.4 N	0.92
Thallium			3.4U	4.1 B	65
Vanadium			1.2U	176	515
Zinc			2.1U	1730 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	2760 EN*	750
Antimony			3.6U		88
Arsenic			1.6U	6.3 B	360
Barium			7.9U	223	20,500
Beryllium			0.20U	0.23 B	NA
Boron			34.9U	171	8050
Cadmium			0.30U	0.76 B	1.79
Chromium III			1U	26	984.32
Cobalt			2.1U	2.2 B	95
Copper			0.9U	30.8 N	9.22
Lead			2.1U	32.9 N*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U	4.9 B	789.01
Selenium			2.1U		20
Silver			0.60U	0.62 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	18.3 B	515
Zinc			2.1U	142 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	18	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	1240	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	18	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	20	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: PAT-1-95-C-2.3 Lab ID: PAT1C2 *Elutriate Prep Date: 05/08/95*	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/13/95			
Acetone			10U	50	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	4 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	1 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	2 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
bis(2-Ethylhexyl)phthalate			10U	4 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: PAT-1-95-C-2.3 Lab ID: PATIC2 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/94	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U	3 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	3 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	7 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		153
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	3 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	1 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: PAT-1-95-C-2.3 Lab ID: PAT1C2 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	20,600	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	9.2 BN	360
Barium			7.9U	143 B	20,500
Beryllium			0.20U	3.0 B	NA
Boron			34.9U	64.6 B	8050
Cadmium			0.30U	0.51 B	1.79
Chromium III			1U	147	984.32
Cobalt			2.1U	20.5 B	95
Copper			0.9U	124 *	9.22
Lead			2.1U	49.2 *	33.78
Mercury	05/24/95	05/31/95	0.20U	*	2.4
Nickel			3.8U	39.6 B	789.01
Selenium			2.1U	7.6 N	20
Silver			0.60U	8.2 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	137	515
Zinc			2.1U	212 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	895 EN*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	75.4 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	70.0 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	10.2 BN	9.22
Lead			2.1U	2.1 UN*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	6.4 B	515
Zinc			2.1U	26.6 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	20	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	960	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	20	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	28	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: PAT-2-95-C-0.0 Lab ID: PAT2C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/13/95			
Acetone			10U	71	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	7 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: PAT-2-95-C-0.0 Lab ID: PAT2C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/26/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	4 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	6 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	3 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	18	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/13/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: PAT-2-95-C-0.0 Lab ID: PATZC0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	21,500	750
Antimony			3.6U	4.1 BN	88
Arsenic			1.6U	17.2 N	360
Barium			7.9U	293	20,500
Beryllium			0.20U	0.91 B	NA
Boron			34.9U	39.2 B	8050
Cadmium			0.30U	4.1 B	1.79
Chromium III			1U	131	984.32
Cobalt			2.1U	21.9 B	95
Copper			0.9U	174 *	9.22
Lead			2.1U	123 *	33.78
Mercury	05/24/95	05/31/95	0.20U	0.42 *	2.4
Nickel			3.8U	44.2	789.01
Selenium			2.1U	3.4 BN	20
Silver			0.60U	7.2 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	61.7	315
Zinc			2.1U	612 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	697 BN*	750
Antimony			3.6U		88
Arsenic			1.6U	2.3 B	360
Barium			7.9U	304	20,500
Beryllium			0.20U		NA
Boron			34.9U	160	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	72.0 N	9.22
Lead			2.1U	6.3 N*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	4.6 B	315
Zinc			2.1U	82.9 BN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	15	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	1300	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	15	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	8	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: PAT-2-95-C-0.0-D Lab ID: PAT2CD Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/13/95			
Acetone			10U	68	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	5 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/21/95			
Phenol			10U	1 J	100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: PAT-2-95-C-0.0-D Lab ID: PAT2CD Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U	2 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	3 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	5 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	3 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	32	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/13/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: PAT-2-95-C-0.0-D Lab ID: PAT2CD Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	40,800	750
Antimony			3.6U	7.0 BN	88
Arsenic			1.6U	28.9 N	360
Barium			7.9U	488	20,500
Beryllium			0.20U	1.3 B	NA
Boron			34.9U	177	8050
Cadmium			0.30U	3.9	1.79
Chromium III			1U	206	984.32
Cobalt			2.1U	37.7 B	95
Copper			0.9U	200 *	9.22
Lead			2.1U	259 *	33.78
Mercury	05/24/95	05/31/95	0.20U	0.69 *	2.4
Nickel			3.8U	73.1	789.01
Selenium			2.1U	6.1 N	20
Silver			0.60U	6.6 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	107	515
Zinc			2.1U	383 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	442 EN*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	107 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	62.2 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	95.3 N	9.22
Lead			2.1U	6.0 N*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	2.1 B	515
Zinc			2.1U	39.0 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	14	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	1140	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	14	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	12	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: PAT-2-95-C-6.8 Lab ID: PAT2C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/13/95			
Acetone			10U	68	446,000
Acrolein			100U		455
Acrylonitrile			100U		545
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	3 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,683
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		13
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: PAT-2-95-C-6.8 Lab ID: PAT2C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	5 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,390
Diethylphthalate			10U	2 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	12	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		13
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/13/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.3
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.3
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: PAT-2-95-C-6.8 Lab ID: PAT2C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	17,500	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	12.6 N	360
Barium			7.9U	201	20,500
Beryllium			0.20U		NA
Boron			34.9U	60.5 B	8050
Cadmium			0.30U	1.4 B	1.79
Chromium III			1U	76	984.32
Cobalt			2.1U	17.9 B	95
Copper			0.9U	61.3 *	9.22
Lead			2.1U	68.5 *	33.78
Mercury	05/24/95	05/31/95	0.20U	*	2.4
Nickel			3.8U	35.1 B	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	1.6 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	58.6	515
Zinc			2.1U	400 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	767 EN*	750
Antimony			3.6U		88
Arsenic			1.6U	1.9 B	360
Barium			7.9U	206	20,500
Beryllium			0.20U		NA
Boron			34.9U	97.3 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	16.6 BN	9.22
Lead			2.1U	3.0 BN*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	5.3 B	515
Zinc			2.1U	52.9 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	19	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	740	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	19	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	4	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: PAT-3-95-C-0.0 Lab ID: PAT3C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	5/13/95			
Acetone			10U	110	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		20,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	4 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	1 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: PAT-3-95-C-0.0 Lab ID: PAT3C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		360
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	3 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		590
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	4 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U	2 J	105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	5 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/13/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: PAT-3-95-C-0.0 Lab ID: PAT3C0 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/22/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	51,300	750
Antimony			3.6U	4.8 BN	88
Arsenic			1.6U	35.2 N	360
Barium			7.9U	630	20,500
Beryllium			0.20U	3.0 B	NA
Boron			34.9U	39.2 B	8050
Cadmium			0.30U	7.4	1.79
Chromium III			1U	233	984.32
Cobalt			2.1U	56.3	95
Copper			0.9U	243 *	9.22
Lead			2.1U	354 *	33.78
Mercury	05/24/95	05/31/95	0.20U	1.2 *	2.4
Nickel			3.8U	95.4	789.01
Selenium			2.1U	7.4 N	20
Silver			0.60U	9.6 BN	0.92
Thallium			3.4U	4.3 B	65
Vanadium			1.2U	123	515
Zinc			2.1U	1310 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	4220 EN*	750
Antimony			3.6U		88
Arsenic			1.6U	6.2 B	360
Barium			7.9U	375	20,500
Beryllium			0.20U		NA
Boron			34.9U	218	8050
Cadmium			0.30U	0.59 B	1.79
Chromium III			1U	20	984.32
Cobalt			2.1U	4.9 B	95
Copper			0.9U	95.3 N	9.22
Lead			2.1U	32.7 N*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U	9.1 B	789.01
Selenium			2.1U		20
Silver			0.60U	0.91 BN	0.92
Thallium			3.4U		65
Vanadium			1.2U	13.3 B	515
Zinc			2.1U	171 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	18	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	1450	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	18	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U	0.2	19
Total Suspended Solids		05/12/95	1U	64	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: PAT-3-95-C-6.25 Lab ID: PAT3C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/13/95			
Acetone			10U	45	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	10 B	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/21/95			
Phenol			10U	1 J	100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: PAT-3-95-C-6.25 Lab ID: PAT3C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	2 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	4 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	3 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	17	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/13/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: PAT-3-95-C-6.25 Lab ID: PAT3C6 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	220,000	750
Antimony			3.6U	5.9 BN	88
Arsenic			1.6U	82.0 N	360
Barium			7.9U	2090	20,500
Beryllium			0.20U	4.2 B	NA
Boron			34.9U	129	8050
Cadmium			0.30U	6.1	1.79
Chromium III			1U	330	984.32
Cobalt			2.1U	131	95
Copper			0.9U	183 *	9.22
Lead			2.1U	141 *	33.78
Mercury	05/24/95	05/31/95	0.20U	0.26 *	2.4
Nickel			3.8U	311	789.01
Selenium			2.1U	9.0 N	20
Silver			0.60U	2.3 BN	0.92
Thallium			3.4U	6.7 B	65
Vanadium			1.2U	451	515
Zinc			2.1U	1710 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	21,200 EN*	750
Antimony			3.6U		88
Arsenic			1.6U	6.6 B	360
Barium			7.9U	277	20,500
Beryllium			0.20U		NA
Boron			34.9U	144	8050
Cadmium			0.30U		1.79
Chromium III			1U	46	984.32
Cobalt			2.1U	13.4 B	95
Copper			0.9U	85.8 N	9.22
Lead			2.1U	14.3 N*	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U	24.5 B	789.01
Selenium			2.1U	2.9 B	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	43.5 B	515
Zinc			2.1U	147 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	6	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	10,300	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	7	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	24	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: PAT-4-95-C-0.0 Lab ID: PAT4C0 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/8/95			
Acetone			10U	48	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	7 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1630
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			10		0.5
Chrysene			10U		NA
bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: PAT-4-95-C-0.0 Lab ID: PAT4C0 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270): Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		360
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	7 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	9 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	15	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: PAT-4-95-C-0.0 Lab ID: PAT4C0 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/22/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/15/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	129,000	750
Antimony			3.6U	4.0 BN	88
Arsenic			1.6U	43.6 N	360
Barium			7.9U	1260	20,500
Beryllium			0.20U	3.8 B	NA
Boron			34.9U	153	8050
Cadmium			0.30U	5.8	1.79
Chromium III			1U	368	984.32
Cobalt			2.1U	99.1	95
Copper			0.9U	226 *	9.22
Lead			2.1U	288 *	33.78
Mercury	05/24/95	05/31/95	0.20U	0.74 *	2.4
Nickel			3.8U	189	789.01
Selenium			2.1U	9.0 N	20
Silver			0.60U	5.8 BN	0.92
Thallium			3.4U	4.0 B	65
Vanadium			1.2U	263	515
Zinc			2.1U	1360 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	8930 EN*	750
Antimony			3.6U		88
Arsenic			1.6U	4.1 B	360
Barium			7.9U	348	20,500
Beryllium			0.20U		NA
Boron			34.9U	202	8050
Cadmium			0.30U		1.79
Chromium III			1U	20	984.32
Cobalt			2.1U	5.7 B	95
Copper			0.9U	49.5 N	9.22
Lead			2.1U	17.3 N*	33.78
Mercury	05/24/95	05/31/95	0.20U	1.8	2.4
Nickel			3.8U	9.8 B	789.01
Selenium			2.1U	3.1 B	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	18.6 B	515
Zinc			2.1U	204 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	14	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	5160	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	13	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	24	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: PAT-4-95-C-5.0 Lab ID: PAT4C5 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/8/95			
Acetone			10U	69	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		13,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	6 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	1 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U	1 J	4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: PAT-4-95-C-5.0 Lab ID: PAT4C5 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270): Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	6 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	8 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	8 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/14/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/24/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: PAT-4-95-C-5.0 Lab ID: PAT4C5 Elutriate Prep Date: 05/06/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/09/95	05/22/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/15/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/17/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	238,000	750
Antimony			3.6U	8.8 BN	88
Arsenic			1.6U	71.6 N	360
Barium			7.9U	2300	20,500
Beryllium			0.20U	3.6 B	NA
Boron			34.9U	238	8050
Cadmium			0.30U	7.8	1.79
Chromium III			1U	543	984.32
Cobalt			2.1U	161	95
Copper			0.9U	209 *	9.22
Lead			2.1U	146 *	33.78
Mercury	05/24/95	05/31/95	0.20U	0.32 *	2.4
Nickel			3.8U	326	789.01
Selenium			2.1U	8.2 N	20
Silver			0.60U	2.1 BN	0.92
Thallium			3.4U	9.3 B	65
Vanadium			1.2U	453	515
Zinc			2.1U	1970 N*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/17/95	05/25/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	18,900 EN*	750
Antimony			3.6U		88
Arsenic			1.6U	4.7 B	360
Barium			7.9U	1000	20,500
Beryllium			0.20U		NA
Boron			34.9U	514	8050
Cadmium			0.30U		1.79
Chromium III			1U	39	984.32
Cobalt			2.1U	11.2 B	95
Copper			0.9U	65.4 N	9.22
Lead			2.1U	10.4 N*	33.78
Mercury	05/24/95	05/31/95	0.20U	0.20	2.4
Nickel			3.8U	20.5 B	789.01
Selenium			2.1U	2.1 B	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	33.8 B	515
Zinc			2.1U	307 EN*	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	22	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U	11,000	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	22	86,000
Chromium VI		05/09/95, 05/10/	0.01U		NA
Cyanide		05/11/95, 05/22/9	0.01U		22
Total Residual Chlorine		05/09/95, 05/10/	0.1U		19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: SFM-1-95-C-0.0 Lab ID: SFM1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/15/95			
Acetone			10U	33	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		13,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		360
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Table 3.0 Results of Elutriate and River Water Analyses

Sample ID: SFM-1-95-C-0.0 Lab ID: SFM1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 JB	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	3 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.27	0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U	0.52	2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Table 3.0 Results of Elutriate and River Water Analyses

Sample ID: SFM-1-95-C-0.0 Lab ID: SFM1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	116,000	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	106 N	360
Barium			7.9U	1290 N*	20,500
Beryllium			0.20U	4.1 B	NA
Boron			34.9U	187	8050
Cadmium			0.30U	19.4	1.79
Chromium III			1U	1073	984.32
Cobalt			2.1U	85.2 B	95
Copper			0.9U	654 N*	9.22
Lead			2.1U	939 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	5.3	2.4
Nickel			3.8U	197 EN	789.01
Selenium			2.1U	10.0 N	20
Silver			0.60U	22.0 N	0.92
Thallium			3.4U	6.9 BN	65
Vanadium			1.2U	532 EN	515
Zinc			2.1U	2120 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	580 *	750
Antimony			3.6U		88
Arsenic			1.6U	5.3 B	360
Barium			7.9U	211	20,500
Beryllium			0.20U		NA
Boron			34.9U	117	8050
Cadmium			0.30U		1.79
Chromium III			1U	4	984.32
Cobalt			2.1U		95
Copper			0.9U	48.4 *	9.22
Lead			2.1U	11.7	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	12.5 B	515
Zinc			2.1U	82.2	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	3280	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL
but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SFM-1-95-C-1.0 Lab ID: SFM1C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/15/95			
Acetone			10U	52	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachlonde			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		693
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		590
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			1000		17,100
Benzidine			1000		295
1,2-Diphenyl-n-hydrazine			1000		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: SFM-1-95-C-1.0 Lab ID: SFM1C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		545
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 JB	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
bis(2-Ethylhexyl)phthalate			10U	10	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.26	0.35
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U	0.60	2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SFM-1-95-C-1.0 Lab ID: SFM1C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	129,000	750
Antimony			3.6U	5.3 BN	88
Arsenic			1.6U	186 N	360
Barium			7.9U	1520 N*	20,500
Beryllium			0.20U	3.3 B	NA
Boron			34.9U	198	8050
Cadmium			0.30U	21.7	1.79
Chromium III			1U	1668	984.32
Cobalt			2.1U	104 B	95
Copper			0.9U	909 N*	9.22
Lead			2.1U	1400 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	5.4	2.4
Nickel			3.8U	224 EN	789.01
Selenium			2.1U	15.6 N	20
Silver			0.60U	55.3 N	0.92
Thallium			3.4U	5.6 BN	65
Vanadium			1.2U	882 EN	315
Zinc			2.1U	2260 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	674 *	750
Antimony			3.6U		88
Arsenic			1.6U	6.0 B	360
Barium			7.9U	276	20,500
Beryllium			0.20U		NA
Boron			34.9U	214	8050
Cadmium			0.30U		1.79
Chromium III			1U	11	984.32
Cobalt			2.1U		95
Copper			0.9U	54.7 *	9.22
Lead			2.1U	18.9	33.78
Mercury	05/24/95	05/31/95	0.20U	0.20	2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	18.2 B	315
Zinc			2.1U	126	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	490	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: SFM-1-95-C-3.3 Lab ID: SFM1C3 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/15/95			
Acetone			10U	47	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: SFM-1-95-C-3.3 Lab ID: SFM1C3 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: SFM-1-95-C-3.3 Lab ID: SFM1C3 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	297,000	750
Antimony			3.6U	9.0 BN	88
Arsenic			1.6U	83.9 N	360
Barium			7.9U	1880 N*	20,500
Beryllium			0.20U	7.7	NA
Boron			34.9U	296	8050
Cadmium			0.30U	6.0	1.79
Chromium III			1U	756	984.32
Cobalt			2.1U	176 E	95
Copper			0.9U	221 N*	9.22
Lead			2.1U	172 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	0.44	2.4
Nickel			3.8U	395 EN	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	2.0 BN	0.92
Thallium			3.4U	7.2 BN	65
Vanadium			1.2U	589 EN	515
Zinc			2.1U	1390 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	40,800 *	750
Antimony			3.6U		88
Arsenic			1.6U	17.1	360
Barium			7.9U	758	20,500
Beryllium			0.20U	6.4	NA
Boron			34.9U	62.2 B	8050
Cadmium			0.30U	0.98 B	1.79
Chromium III			1U	89	984.32
Cobalt			2.1U	42.7 B	95
Copper			0.9U	86.6 *	9.22
Lead			2.1U	89.9	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U	53.8	789.01
Selenium			2.1U	5.1	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	130	515
Zinc			2.1U	540	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	11	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	13,900	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	11	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	108	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and Water Analyses

Sample ID: SFM-1-95-C-6.4 Lab ID: SFM1C6 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/15/95			
Acetone			10U	35	446,000
Acrolein			100U		455
Acrylonitrile			100U		640
Benzene			10U		NA
Bromodichloromethane			10U		1825
Bromoform			10U		NA
Bromomethane			10U		161,000
2-Butanone (MEK)			10U		2780
Carbon Tetrachloride			10U		17,500
2-Chloroethylvinylether			10U		1180
Chlorobenzene			10U		NA
Chloroethane			10U		1945
Chloroform			10U		NA
Chloromethane			10U		10,825
1,2-Dichloropropane			10U		NA
1,1-Dichloroethane			10U		15,440
1,2-Dichloroethane			10U		7460
1,1-Dichloroethene			10U		6750
Dibromochloromethane			10U		1000
1,2-trans Dichloroethylene			10U		305
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		2900
trans-1,3-Dichloropropene			10U		21,400
Ethylbenzene			10U		26,000
2-Hexanone			10U		11,840
4-Methyl-2-Pentanone (MIBK)			10U	2 JB	NA
Methylene Chloride			10U		695
Styrene			10U		1040
Tetrachloroethylene			10U		NA
1,1,1,2-Tetrachloroethane			10U		1040
1,1,2,2-Tetrachloroethane			10U		1650
Toluene			10U		3025
1,1,1-Trichloroethane			10U		3390
1,1,2-Trichloroethane			10U		2250
Trichloroethene (TCE)			10U		NA
Vinyl Chloride			10U		1055
Xylenes (Total)					
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,390
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		13
Benzyl Alcohol			10U		NA

Sample ID: SFM-1-95-C-6.4 Lab ID: SFM1C6 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	3 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		135
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	14 B	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: SFM-1-95-C-6.4 Lab ID: SFM1C6 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/26/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	204,000	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	53.8 N	360
Barium			7.9U	1500 N*	20,500
Beryllium			0.20U	3.5 B	NA
Boron			34.9U	226	8050
Cadmium			0.30U	3.2 B	1.79
Chromium III			1U	468	984.32
Cobalt			2.1U	122 B	95
Copper			0.9U	170 N*	9.22
Lead			2.1U	97.6 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	265 EN	789.01
Selenium			2.1U	3.8 BN	20
Silver			0.60U	1 BN	0.92
Thallium			3.4U	5.0 BN	65
Vanadium			1.2U	383 EN	315
Zinc			2.1U	892 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	1350 *	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	186 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	187	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	148 *	9.22
Lead			2.1U	6.1	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	4.4 B	315
Zinc			2.1U	125	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	9	86,000
Chromium VI		05/12/95	0.01U		NA*
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	7440	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	9	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U	0.2	19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SFM-2-95-C-0.0 Lab ID: SFM2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/15/95			
Acetone			10U	56	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to extract	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: SFM-2-95-C-0.0 Lab ID: SFM2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to extract	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	1 JB	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to extract	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to extract	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: SFM-2-95-C-0.0 Lab ID: SFM2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to extract	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to extract	05/18/95	05/26/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	190,000	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	53.5 N	360
Barium			7.9U	1450 N*	20,500
Beryllium			0.20U	3.1 B	NA
Boron			34.9U	171	8050
Cadmium			0.30U	3.0 B	1.79
Chromium III			1U	440	984.32
Cobalt			2.1U	114 E	95
Copper			0.9U	151 N*	9.22
Lead			2.1U	87.8 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	250 EN	789.01
Selenium			2.1U	3.3 BN	20
Silver			0.60U	0.75 BN	0.92
Thallium			3.4U	5.9 BN	65
Vanadium			1.2U	370 EN	515
Zinc			2.1U	916 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	597 *	750
Antimony			3.6U		88
Arsenic			1.6U	2.2 B	360
Barium			7.9U	114 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	89.5 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	118 *	9.22
Lead			2.1U	4.8 B	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	2.4 B	515
Zinc			2.1U	64.8	65.04
INORGANICS - OTHER(Results in mg/L):					
Chloride		05/12/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	5540	NA
INORGANICS - OTHER(Results in mg/L):					
Chloride		05/22/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U	0.2	19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: SFM-2-95-C-5.0 Lab ID: SFM2C5 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/16/95			
Acetone			10U	57	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: SFM-2-95-C-5.0 Lab ID: SFM2C5 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	1 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	19 B	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: SFM-2-95-C-5.0 Lab ID: SFM2C5 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/26/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	224,000	750
Antimony			3.6U	6.4 BN	88
Arsenic			1.6U	50.3 N	360
Barium			7.9U	1430 N*	20,500
Beryllium			0.20U		NA
Boron			34.9U	218	8050
Cadmium			0.30U	2.3 B	1.79
Chromium III			1U	474	984.32
Cobalt			2.1U	125 E	95
Copper			0.9U	145 N*	9.22
Lead			2.1U	87.3	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	0.51	2.4
Nickel			3.8U	260 EN	789.01
Selenium			2.1U	16.4 N	20
Silver			0.60U	1.6 BN	0.92
Thallium			3.4U	17.4 N	65
Vanadium			1.2U	406 EN	515
Zinc			2.1U	874 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	490 *	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	17.9 B	20,500
Beryllium			0.20U		NA
Boron			34.9U		8050
Cadmium			0.30U	0.34 B	1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	79.5 *	9.22
Lead			2.1U	3.3 B	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	1.8 B	515
Zinc			2.1U	18.2 B	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	22	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	7600	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	22	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U	0.2	19
Total Suspended Solids		05/12/95	1U	4	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference .
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: SHI-1-95-C-0.0 Lab ID: SHI1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/15/95			
Acetone			10U	44	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		13,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		1
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		13
Benzyl Alcohol			10U		NA

Sample ID: SHI-1-95-C-0.0 Lab ID: SHI1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		1
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	18	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.06 J	0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Sample ID: SHI-1-95-C-0.0 Lab ID: SHI1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010J		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	67,000	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	43.6 N	360
Barium			7.9U	786 N*	20,500
Beryllium			0.20U		NA
Boron			34.9U	93.4 B	8050
Cadmium			0.30U	6.5	1.79
Chromium III			1U	426	984.32
Cobalt			2.1U	59.1 E	95
Copper			0.9U	305 N*	9.22
Lead			2.1U	425 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	1.3	2.4
Nickel			3.8U	118 EN	789.01
Selenium			2.1U	7.4 N	20
Silver			0.60U	10.4 N	0.92
Thallium			3.4U	6.5 BN	65
Vanadium			1.2U	255 EN	515
Zinc			2.1U	1150 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	685 *	750
Antimony			3.6U		88
Arsenic			1.6U	2.6 B	360
Barium			7.9U	232	20,500
Beryllium			0.20U		NA
Boron			34.9U	128	8050
Cadmium			0.30U		1.79
Chromium III			1U	4	984.32
Cobalt			2.1U		95
Copper			0.9U	190 *	9.22
Lead			2.1U	16.8	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	10.4 B	515
Zinc			2.1U	104	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	2180	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: SHI-1-95-C-6.7 Lab ID: SHI1C6 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/15/95			
Acetone			10U	70	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromochloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U	12	161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		13,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to extract	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,635
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		133
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: SHI-1-95-C-6.7 Lab ID: SHI1C6 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270): Holding time: 7 days to extract, 40 days to extract	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to extract	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to extract	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SHI-1-95-C-6.7 Lab ID: SHI1C6 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to extract	05/15/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to extract	05/18/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	238,000	750
Antimony			3.6U	5.4 BN	88
Arsenic			1.6U	77.0 N	360
Barium			7.9U	2020 N*	20,500
Beryllium			0.20U	6.9	NA
Boron			34.9U	327	8050
Cadmium			0.30U	4.7 B	1.79
Chromium III			1U	373	984.32
Cobalt			2.1U	153 E	95
Copper			0.9U	207 N*	9.22
Lead			2.1U	130 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	323 EN	789.01
Selenium			2.1U	2.1 BN	20
Silver			0.60U	3.1 BN	0.92
Thallium			3.4U	7.9 BN	65
Vanadium			1.2U	448 EN	515
Zinc			2.1U	1180 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	8800 *	750
Antimony			3.6U		88
Arsenic			1.6U	5.2 B	360
Barium			7.9U	522	20,500
Beryllium			0.20U	1.1 B	NA
Boron			34.9U	296	8050
Cadmium			0.30U		1.79
Chromium III			1U	17	984.32
Cobalt			2.1U	9.6 B	95
Copper			0.9U	109 *	9.22
Lead			2.1U	18.8	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U	11.5 B	789.01
Selenium			2.1U	2.3 B	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	22.4 B	515
Zinc			2.1U	237	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	10,100	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	20	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	32	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL
but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SHI-2-95-C-0.0 Lab ID: SHI2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/15/95			
Acetone			10U	130	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	4 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-Nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: SHI-2-95-C-0.0 Lab ID: SHI2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			1U	10	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U	0.11	0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SHI-2-95-C-0.0 Lab ID: SHI2C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	155,000	750
Antimony			3.6U	3.9 BN	88
Arsenic			1.6U	93.1 N	360
Barium			7.9U	1610 N*	20,500
Beryllium			0.20U		NA
Boron			34.9U	210	8050
Cadmium			0.30U	14.0	1.79
Chromium III			1U	976	984.32
Cobalt			2.1U	118 B	95
Copper			0.9U	573 N*	9.22
Lead			2.1U	789 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	2.3	2.4
Nickel			3.8U	255 EN	789.01
Selenium			2.1U	9.5 N	20
Silver			0.60U	19.1 N	0.92
Thallium			3.4U	11.3 N	65
Vanadium			1.2U	670 EN	515
Zinc			2.1U	2210 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	1130 *	750
Antimony			3.6U		88
Arsenic			1.6U	3.6 B	360
Barium			7.9U	249	20,500
Beryllium			0.20U		NA
Boron			34.9U	241	8050
Cadmium			0.30U		1.79
Chromium III			1U	9	984.32
Cobalt			2.1U		95
Copper			0.9U	104 *	9.22
Lead			2.1U	17.7	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	18.9 B	515
Zinc			2.1U	125	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	5660	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	1	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL
br: greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SHI-2-95-C-5.1 Lab ID: SHI2C5 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days		05/15/95			
Acetone			10U	22	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Sample ID: SHI-2-95-C-5.1 Lab ID: SHI2C5 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 JB	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e(1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC					NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.05U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.10U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SHI-2-95-C-5.1 Lab ID: SHI2C5 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.09U		0.55
Endrin			0.10U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.05U		0.55
Methoxychlor			0.10U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.05U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.10U		1.2
Mirex			1.00U		NA
Toxaphene			0.50U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260					2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	17,000	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	4.6 BN	360
Barium			7.9U	169 BN*	20,500
Beryllium			0.20U		NA
Boron			34.9U	113	8050
Cadmium			0.30U		1.79
Chromium III			1U	44	984.32
Cobalt			2.1U	10.4 BE	95
Copper			0.9U	33.6 N*	9.22
Lead			2.1U	14.9 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	22.1 BEN	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	0.81 BN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	42.1 BEN	515
Zinc			2.1U	102 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	213 *	750
Antimony			3.6U		88
Arsenic			1.6U	1.8 B	360
Barium			7.9U	230	20,500
Beryllium			0.20U		NA
Boron			34.9U	93.4 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	32.1 *	9.22
Lead			2.1U		33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	2.9 B	515
Zinc			2.1U	53.8	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	18	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	424	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	1	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SMH-1-95-C-0.0 Lab ID: SMH1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/16/95			
Acetone			10U	51	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1325
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		590
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: SMH-1-95-C-0.0 Lab ID: SMH1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		590
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SMH-1-95-C-0.0 Lab ID: SMH1C0 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/26/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	945	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	1.6 UN	360
Barium			7.9U	44.3 BN*	20,500
Beryllium			0.20U		NA
Boron			34.9U	54.5 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U	2.1 UE	95
Copper			0.9U	15.8 BN*	9.22
Lead			2.1U	2.4 B*	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	0.81	2.4
Nickel			3.8U	3.8 UEN	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	2.1 BEN	515
Zinc			2.1U	13.5 BEN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	158 B*	750
Antimony			3.6U		88
Arsenic			1.6U		360
Barium			7.9U	35.3 B	20,500
Beryllium			0.20U		NA
Boron			34.9U		8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	10.1 B*	9.22
Lead			2.1U		33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U		515
Zinc			2.1U		65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride			1U	19	86,000
Chromium VI			0.01U		
Cyanide			0.01U		22
Total Residual Chlorine			0.1U	0.2	19
Total Suspended Solids			1U	4	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride			1U	19	86,000
Chromium VI			0.01U		NA
Cyanide			0.01U	0.2	22
Total Residual Chlorine			0.1U		19
Total Suspended Solids			1U	20	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of the presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SMH-1-95-C-1.4 Lab ID: SMH1C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	---	05/16/95			
Acetone			10U	26	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	4 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: SMH-1-95-C-1.4 Lab ID: SMH1C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/13/95	05/24/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	3 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U		660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,009
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/20/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SMH-1-95-C-1.4 Lab ID: SMH1C1 Elutriate Prep Date: 05/09/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/15/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/18/95	05/26/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/18/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	9,620	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	3.9 BN	360
Barium			7.9U	117 BN*	20,500
Beryllium			0.20U		NA
Boron			34.9U	93.4 B	8050
Cadmium			0.30U	0.31 B	1.79
Chromium III			1U	24	984.32
Cobalt			2.1U	7.6 BE	95
Copper			0.9U	27.8 N*	9.22
Lead			2.1U	22.3 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	12.4 BEN	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	4.5 BN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	24.5 BEN	515
Zinc			2.1U	97.4 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	259 *	750
Antimony			3.6U		88
Arsenic			1.6U	2.0 B	360
Barium			7.9U	184 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	97.3 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	34.8 *	9.22
Lead			2.1U		33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	1.7 B	515
Zinc			2.1U	51.0	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U	0.2	19
Total Suspended Solids		05/12/95	1U		NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	19	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U		NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics). Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SMH-2-95-C-0.0-R1 Lab ID: SM2CO1 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/13/95			
Acetone			10U	42	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-*trans* Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	29 B	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U	1 J	NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	2 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: SMH-2-95-C-0.0-R1 Lab ID: SM2CO1 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 JB	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		590
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U		NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/18/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SMH-2-95-C-0.0-R1 Lab ID: SM2CO1 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acut- Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.013U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/23/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	---	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	95,100	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	57.6 N	360
Barium			7.9U	1200 N*	20,500
Beryllium			0.20U	7.1	NA
Boron			34.9U	182	8050
Cadmium			0.30U	20.7	1.79
Chromium III			1U	451	984.32
Cobalt			2.1U	83.5 E	95
Copper			0.9U	548 N*	9.22
Lead			2.1U	746 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U	1.4	2.4
Nickel			3.8U	162 EN	789.01
Selenium			2.1U	9.7 N	20
Silver			0.60U	24.0 N	0.92
Thallium			3.4U	4.9 BN	65
Vanadium			1.2U	211 EN	515
Zinc			2.1U	2340 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	2330 *	750
Antimony			3.6U		88
Arsenic			1.6U	6.5 B	360
Barium			7.9U	426	20,500
Beryllium			0.20U	0.83 B	NA
Boron			34.9U	171	8050
Cadmium			0.30U		1.79
Chromium III			1U	11	984.32
Cobalt			2.1U	2.5 B	95
Copper			0.9U	71.0 *	9.22
Lead			2.1U	34.9	33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U	2.6 B	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	53.9	515
Zinc			2.1U	121	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	4980	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	32	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Results of Elutriate and River Water Analyses

Sample ID: SMH-2-95-C-0.0-R2 Lab ID: SM2C02 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	05/13/95			
Acetone			10U	37	446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		15,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/11/95	05/22/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	1 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	1 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA

Results of Elutriate and River Water Analyses

Sample ID: SMH-2-95-C-0.0-R2 Lab ID: SM2C02 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
DISS. SEMIVOLATILE ORGANICS (SW846 8270): Holding time: 7 days to extract, 40 days to analyze	05/12/95	05/23/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,345
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U		10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	2 JB	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	1 J	NA
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/18/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			.010U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
DISSOLVED PESTICIDES/PCBS (SW846 8080) Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/19/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25

Results of Elutriate and River Water Analyses

Sample ID: SMH-2-95-C-0.0-R2 Lab ID: SM2C02 Elutriate Prep Date: 05/08/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.50U		2
Aroclor-1221			0.50U		2
Aroclor-1232			0.50U		2
Aroclor-1242			0.50U		2
Aroclor-1248			0.50U		2
Aroclor-1254			0.50U		2
Aroclor-1260			0.50U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/25/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
DISS. ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/10/95	05/24/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/17/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
DISS. ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/11/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/20/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	20,100	750
Antimony			3.6U	3.6 UN	88
Arsenic			1.6U	8.5 BN	360
Barium			7.9U	226 N*	20,500
Beryllium			0.20U		NA
Boron			34.9U	124	8050
Cadmium			0.30U		1.79
Chromium III			1U	24	984.32
Cobalt			2.1U	10.7 BE	95
Copper			0.9U	70.6 N*	9.22
Lead			2.1U	15.6 *	33.78
Mercury	5/26/95, 5/31/95	06/05/95	0.20U		2.4
Nickel			3.8U	21.8 BEN	789.01
Selenium			2.1U	2.1 UN	20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U	3.4 UN	65
Vanadium			1.2U	72.1 EN	515
Zinc			2.1U	190 EN*	65.04
INORGANICS - DISS. METALS (SW846 6000/7000):	05/19/95	5/25/95, 5/31/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	327 *	750
Antimony			3.6U		88
Arsenic			1.6U	2.3 B	360
Barium			7.9U	275	20,500
Beryllium			0.20U		NA
Boron			34.9U	66.2 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	28.1 *	9.22
Lead			2.1U		33.78
Mercury	05/24/95	05/31/95	0.20U	0.47	2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	12.0 B	515
Zinc			2.1U	21.6	65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/12/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	2560	NA
DISS. INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	21	86,000
Chromium VI		05/12/95	0.01U		NA
Cyanide		05/22/95	0.01U		22
Total Residual Chlorine		05/12/95	0.1U		19
Total Suspended Solids		05/12/95	1U	8	NA

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
E - Estimated value because of presence of interference
N - Spiked sample recovery not within control limits
Blank spaces represent non-detected compounds.

Sample ID: River Water Lab ID: RIVH2O Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
VOLATILE ORGANICS (SW846 8240):					
Holding time: 14 days	—	5/04/95			
Acetone			10U		446,000
Acrolein			100U		455
Acrylonitrile			100U		645
Benzene			10U		640
Bromodichloromethane			10U		NA
Bromoform			10U		1825
Bromomethane			10U		NA
2-Butanone (MEK)			10U		161,000
Carbon Tetrachloride			10U		2780
2-Chloroethylvinylether			10U		17,500
Chlorobenzene			10U		1180
Chloroethane			10U		NA
Chloroform			10U		1945
Chloromethane			10U		NA
1,2-Dichloropropane			10U		10,825
1,1-Dichloroethane			10U		NA
1,2-Dichloroethane			10U		13,440
1,1-Dichloroethene			10U		7460
Dibromochloromethane			10U		6750
1,2-trans Dichloroethylene			10U		1000
cis-1,2-Dichloroethene			10U		305
cis-1,3-Dichloropropene			10U		305
trans-1,3-Dichloropropene			10U		2900
Ethylbenzene			10U		21,400
2-Hexanone			10U		26,000
4-Methyl-2-Pentanone (MIBK)			10U		11,840
Methylene Chloride			10U	2 JB	NA
Styrene			10U		695
Tetrachloroethylene			10U		1040
1,1,1,2-Tetrachloroethane			10U		NA
1,1,2,2-Tetrachloroethane			10U		1040
Toluene			10U		1650
1,1,1-Trichloroethane			10U		3025
1,1,2-Trichloroethane			10U		3390
Trichloroethene (TCE)			10U		2250
Vinyl Chloride			10U		NA
Xylenes (Total)			10U		1055
SEMIVOLATILE ORGANICS (SW846 8270):					
Holding time: 7 days to extract, 40 days to analyze	05/06/95	05/21/95			
Phenol			10U		100
bis(2-chloroethyl)ether			10U		30,000
2-Chlorophenol			10U		560
1,3-Dichlorobenzene			10U		345
1,4-Dichlorobenzene			10U		730
1,2-Dichlorobenzene			10U		820
2-Methylphenol			10U		NA
bis(2-chloroisopropyl)ether			10U		4,545
4-Methylphenol			10U		NA
N-Nitroso-di-n-propylamine			10U		NA
Hexachloroethane			10U		60
Nitrobenzene			10U		4,040
Isophorone			10U	2 J	10,400
2-Nitrophenol			10U		8,000
2,4-Dimethylphenol			10U	1 J	660
2,4-Dichlorophenol			10U		1,685
1,2,4-Trichlorobenzene			10U		130
Naphthalene			10U		135
4-Chloroaniline			10U		NA
Hexachlorobutadiene			10U		10
bis(2-Chloroethoxy)methane			10U		NA
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U		155
Hexachlorocyclopentadiene			10U		5
2,4,6-Trichlorophenol			10U		5
2,4,5-Trichlorophenol			50U		100
2-Chloronaphthalene			10U		NA
Dimethyl phthalate			10U		2,475
Acenaphthylene			10U		NA
2,6-Dinitrotoluene			10U		990
Acenaphthene			10U		85
2,4-Dinitrophenol			50U		655
4-Nitrophenol			50U		2,335
2,4-Dinitrotoluene			10U		1,590
Diethylphthalate			10U		4,000
4-Chlorophenyl-phenylether			10U		NA
Fluorene			10U		NA
4,6-Dinitro-2-methylphenol			50U		NA
N-Nitrosodiphenylamine			10U		295
4-Bromophenyl-phenylether			10U		270
Hexachlorobenzene			10U		NA
Pentachlorophenol			50U		e (1.005(pH)-4.830)
Phenanthrene			10U		5
Anthracene			10U		NA
Di-n-butyl phthalate			10U		105
Fluoranthene			10U		200
Pyrene			10U		NA
Butylbenzyl phthalate			10U		140
3,3'-Dichlorobenzidine			20U		NA
Benzo(a)anthracene			1U		0.5
Chrysene			10U		NA
Bis(2-Ethylhexyl)phthalate			10U	1 J	NA

Sample ID: River Water Lab ID: RIVH2O Sampling Date: 4/30/95	Date Extracted	Date Analyzed	Method Detection Limit ug/L	Result ug/L	Acute Water Quality Criteria ug/L
Di-n-octyl phthalate			10U		100
Benzo(b)fluoranthene			10U		NA
Benzo(k)fluoranthene			10U		NA
Benzo(a)pyrene (BaP)			10U		NA
Indeno(1,2,3-cd)pyrene			10U		NA
Dibenz(a,h)anthracene			10U		NA
Benzo(g,h,i)perylene			10U		NA
N-nitrosodimethylamine			100U		17,100
Benzidine			100U		295
1,2-Diphenyl-n-hydrazine			100U		15
Benzyl Alcohol			10U		NA
PESTICIDES/PCBS (SW846 8080)					
Holding time: 7 days to extract, 40 days to analyze	05/03/95	05/12/95			
alpha-BHC			0.05U		NA
beta-BHC			0.05U		NA
delta-BHC			0.05U		NA
gamma-BHC (Lindane)			0.05U		1
Heptachlor			0.05U		0.26
Aldrin			0.05U		1.5
Heptachlor Epoxide			0.05U		0.5
Endosulfan I			0.05U		0.11
Dieldrin			0.10U		1.25
4,4'-DDE			0.10U		0.55
Endrin			0.09U		0.09
Endosulfan II			0.10U		0.11
4,4'-DDD (p,p'-TDE)			0.10U		0.55
Endosulfan Sulfate			0.10U		0.11
4,4'-DDT			0.10U		0.55
Methoxychlor			0.50U		NA
Endrin Ketone			0.10U		NA
Endrin Aldehyde			0.10U		NA
alpha-Chlordane			0.05U		1.2
gamma-Chlordane			0.05U		1.2
Mirex			0.10U		NA
Toxaphene			1.00U		0.37
Aroclor-1016			0.05U		2
Aroclor-1221			0.05U		2
Aroclor-1232			0.05U		2
Aroclor-1242			0.05U		2
Aroclor-1248			0.05U		2
Aroclor-1254			0.05U		2
Aroclor-1260			0.05U		2
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):					
Holding time: 7 days to extract, 40 days to analyze	05/03/95	05/20/95			
Parathion			1.0U		0.065
Chlorpyrifos			1.0U		0.083
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):					
Holding time: None	—	05/10/95			
Formaldehyde			5000U		2180
1-Propanol			5000U		227,750
2-Propanol			5000U		443,165
INORGANICS - TOTAL METALS (SW846 6000/7000):	05/18/95	05/19/95			
Holding time: 6 mo. (28 days Hg)	all except Hg	all except Hg			
Aluminum			43.8U	196 B	750
Antimony			3.6U		88
Arsenic			1.6U	2.0 B	360
Barium			7.9U	26.3 B	20,500
Beryllium			0.20U		NA
Boron			34.9U	52.4 B	8050
Cadmium			0.30U		1.79
Chromium III			1U		984.32
Cobalt			2.1U		95
Copper			0.9U	3.9 J	9.22
Lead			2.1U		33.78
Mercury	05/24/95	05/31/95	0.20U		2.4
Nickel			3.8U		789.01
Selenium			2.1U		20
Silver			0.60U	0.60 UN	0.92
Thallium			3.4U		65
Vanadium			1.2U	2.9 B	515
Zinc			2.1U		65.04
INORGANICS - OTHER (Results in mg/L):					
Chloride		05/22/95	1U	21	86,000
Chromium VI		05/01/95	10U		NA
Cyanide		05/09/95	0.01U		22
Total Residual Chlorine		05/01/95	0.1U	0.3	19

Definitions:
NA - Not Available
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

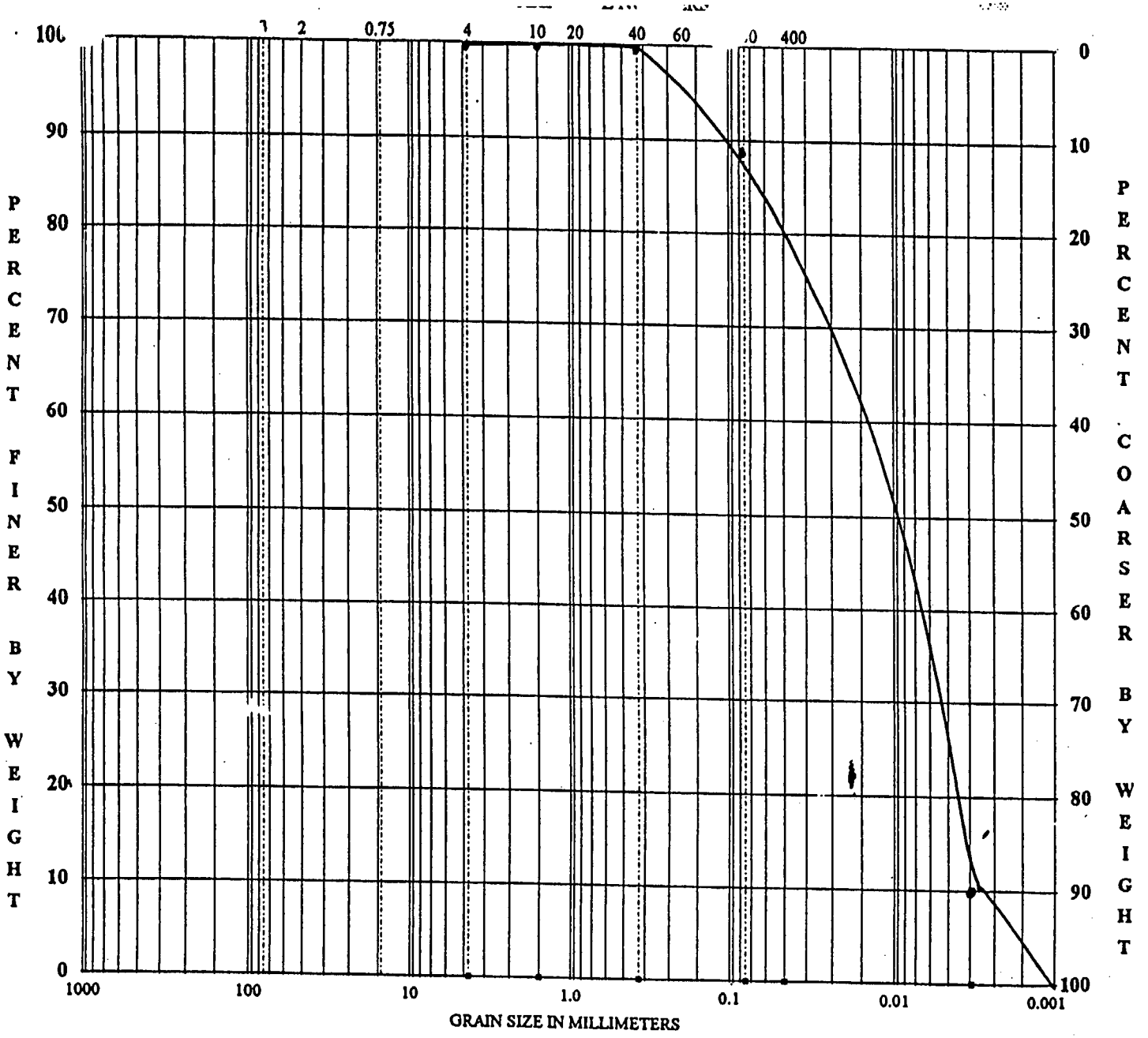
Sample ID: Rinse Blank Sampling Date: 5/4/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg	Result ug/L
VOLATILE ORGANICS (SW846 8240):				
Holding time: 14 days		05/16/95		
Acetone			10U	29
Acrolein			50U	
Acrylonitrile			50U	
Benzene			10U	
Bromodichloromethane			10U	
Bromoform			10U	
Bromomethane			10U	
2-Butanone (MEK)			10U	
Carbon Tetrachloride			10U	
2-Chloroethylvinylether			10U	
Chlorobenzene			10U	
Chloroethane			10U	
Chloroform			10U	
Chloromethane			10U	
1,2-Dichloropropane			10U	
1,1-Dichloroethane			10U	
1,2-Dichloroethane			10U	
1,1-Dichloroethene			10U	
Dibromochloromethane			10U	
1,2-trans Dichloroethylene			10U	
1,2-cis Dichloroethene			10U	
cis-1,3-Dichloropropene			10U	
trans-1,3-Dichloropropene			10U	
Ethylbenzene			10U	
2-Hexanone			10U	
4-Methyl-2-Pentanone (MIBK)			10U	
Methylene Chloride			10U	2 JB
Styrene			10U	
Tetrachloroethylene			10U	
1,1,2,2-Tetrachloroethane			10U	
Toluene			10U	1 J
1,1,1-Trichloroethane			10U	
1,1,2-Trichloroethane			10U	
Trichloroethene (TCE)			10U	
Vinyl Chloride			10U	
Xylenes (Total)			10U	
1,1,1,2-Tetrachloroethane			10U	
SEMIVOLATILE ORGANICS (SW846 8270):				
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/25/95		
Phenol			10U	
bis(2-chloroethyl)ether			10U	
2-Chlorophenol			10U	
1,3-Dichlorobenzene			10U	
1,4-Dichlorobenzene			10U	
1,2-Dichlorobenzene			10U	
2-Methylphenol			10U	
bis(2-chloroisopropyl)ether			10U	
4-Methylphenol			10U	
N-Nitroso-di-n-propylamine			10U	
Hexachloroethane			10U	
Nitrobenzene			10U	
Isophorone			10U	
2-Nitrophenol			10U	
2,4-Dimethylphenol			10U	
2,4-Dichlorophenol			10U	
1,2,4-Trichlorobenzene			10U	
Naphthalene			10U	
4-Chloroaniline			10U	
Hexachlorobutadiene			10U	
bis(2-Chloroethoxy)methane			10U	
4-Chloro-3-methylphenol (p-chloro-m-cresol)			10U	
Hexachlorocyclopentadiene			10U	
2,4,6-Trichlorophenol			10U	
2,4,5-Trichlorophenol			50U	
2-Chloronaphthalene			10U	
Dimethyl phthalate			10U	
Acenaphthylene			10U	
2,6-Dinitrotoluene			10U	
Acenaphthene			10U	
2,4-Dinitrophenol			50U	
4-Nitrophenol			50U	
2,4-Dinitrotoluene			10U	
Diethylphthalate			10U	
4-Chlorophenyl-phenylether			10U	
Fluorene			10U	
4,6-Dinitro-2-methylphenol			50U	
N-Nitrosodiphenylamine			10U	
4-Bromophenyl-phenylether			10U	
Hexachlorobenzene			10U	
Pentachlorophenol			50U	
Phenanthrene			10U	
Anthracene			10U	
Di-n-butylphthalate			10U	
Fluoranthene			10U	
Pyrene			10U	
Butylbenzylphthalate			10U	
3,3'-Dichlorobenzidine			20U	
Benzo(a)anthracene			1U	
Chrysene			10U	
Bis(2-Ethylhexyl)phthalate			10U	
Di-n-octylphthalate			10U	
Benzo(b)fluoranthene			10U	
Benzo(k)fluoranthene			10U	
Benzo(a)pyrene (BaP)			10U	
Indeno(1,2,3-cd)pyrene			10U	

Sample ID: Rinse Blank Sampling Date: 5/4/95	Date Extracted	Date Analyzed	Method Detection Limit ug/kg	Result ug/L
Dibenz(a,h)anthracene			10U	
Benzo(g,h,i)perylene			10U	
N-nitrosodimethylamine			100U	
Benzidine			100U	
1,2-Diphenylhydrazine			100U	
Benzyl Alcohol			10U	
PESTICIDES/PCBS (SW846 8080):				
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/14/95		
alpha-BHC			0.05U	
beta-BHC			0.05U	
delta-BHC			0.05U	
gamma-BHC (Lindane)			0.05U	
Heptachlor			0.05U	
Aldrin			0.05U	
Heptachlor Epoxide			0.05U	
Endosulfan I			0.05U	
Dieldrin			0.10U	
4,4'-DDE			0.10U	
Endrin			0.09U	
Endosulfan II			0.10U	
4,4'-DDD (p,p'-TDE)			0.10U	
Endosulfan Sulfate			0.10U	
4,4'-DDT			0.10U	
Methoxychlor			0.50U	
Endrin Ketone			0.10U	
Endrin Aldehyde			0.10U	
alpha-Chlordane			0.05U	
gamma-Chlordane			0.05U	
Mirex			0.10U	
Toxaphene			1.00U	
Aroclor-1016			0.50U	
Aroclor-1221			0.50U	
Aroclor-1232			0.50U	
Aroclor-1242			0.50U	
Aroclor-1248			0.50U	
Aroclor-1254			0.50U	
Aroclor-1260			0.50U	
ORGANOPHOSPHORUS COMPOUNDS (SW846 8140):				
Holding time: 14 days to extract, 40 days to analyze	05/08/95	05/20/95		
Chloropyrifos			1.0U	
Parathion			1.0U	
ALCOHOLS/ALDEHYDES (SW846 Modified 8015):				
Holding time: None		05/18/95		
Formaldehyde			5000U	
1-Propanol			5000U	
2-Propanol			5000U	
INORGANICS - TOTAL METALS (SW846 6000/7000):				
Holding time: 6 months (Hg 14 days)				
Antimony			3.6U	3.6 UN
Arsenic			1.6U	
Barium			7.9U	
Beryllium			0.20U	
Cadmium			0.30U	
Chromium			1.3U	1.3 UN
Copper			0.90U	0.90 UN*
Lead			2.1U	
Mercury			100U	
Nickel			3.8U	
Selenium			2.1U	
Silver			0.60U	0.60 UN
Thallium			3.4U	
Vanadium			1.2U	
Zinc			6.4U	
INORGANICS - OTHER (Results in mg/L):				
Total Organic Carbon (LOI)			NR	
Chloride			1U	
Hexavalent Chromium			0.01U	
Cyanide			0.01U	
Total Residual Chlorine			0.1U	

Definitions:
NR - Not Required
ug/L - micrograms per Liter, parts per billion
mg/L - milligrams per Liter, parts per million
U - Undetected
J - Estimated value
B - Detected in laboratory blank (organics), Reported value less than Contract Required DL but greater than or equal to Instrument DL (inorganics)
* - Duplicate analysis not within control limits
DL - Detection limit
N - Spiked sample recovery not within control limits

Blank spaces represent non-detected compounds.

Appendix E
Bulk Sediment Grain Size Curves



GRAIN SIZE ANALYSIS BY METHOD D422-63

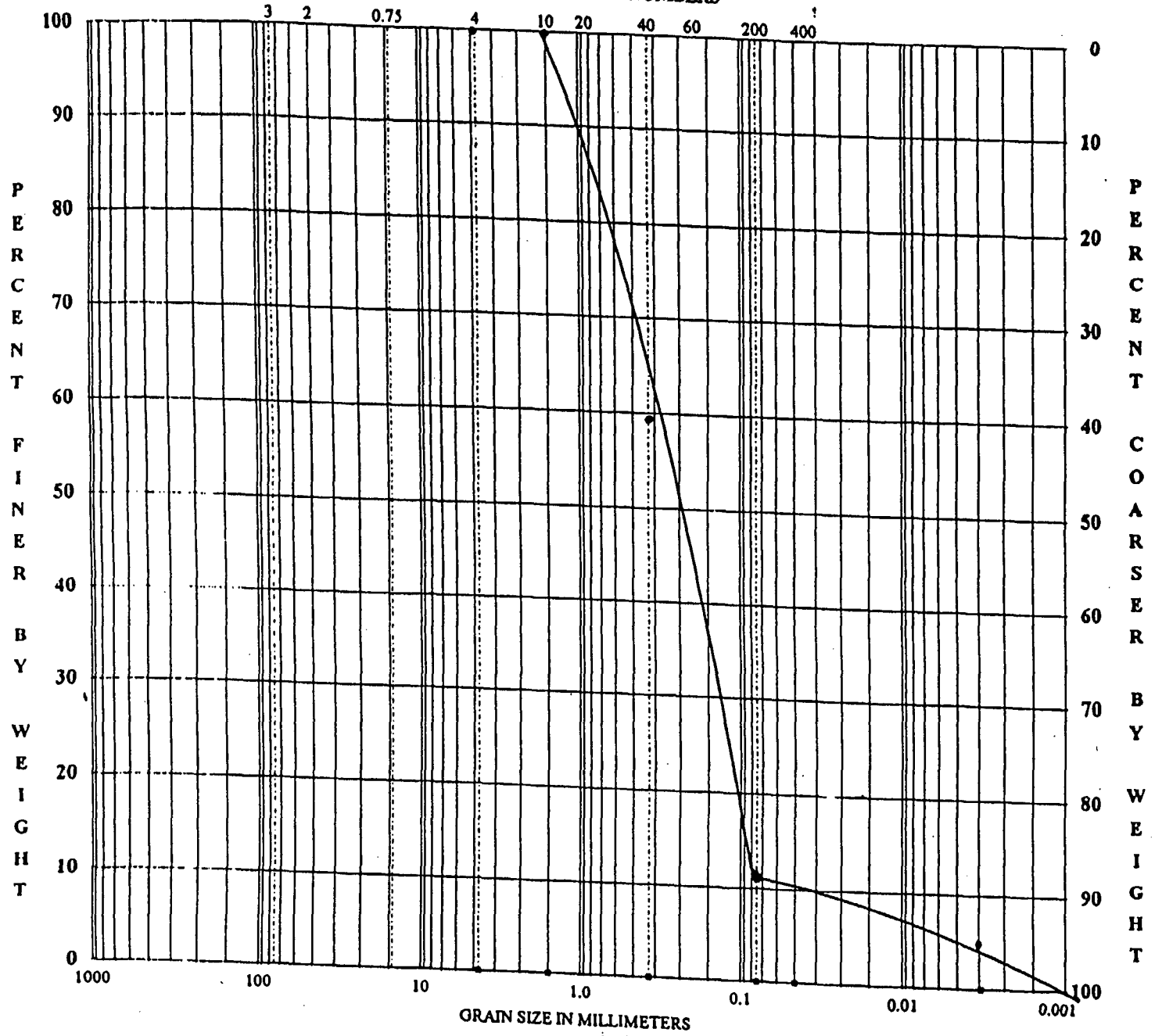
Client Name : B & V

Sample ID : CRC2CO

Client ID : 2376201.

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

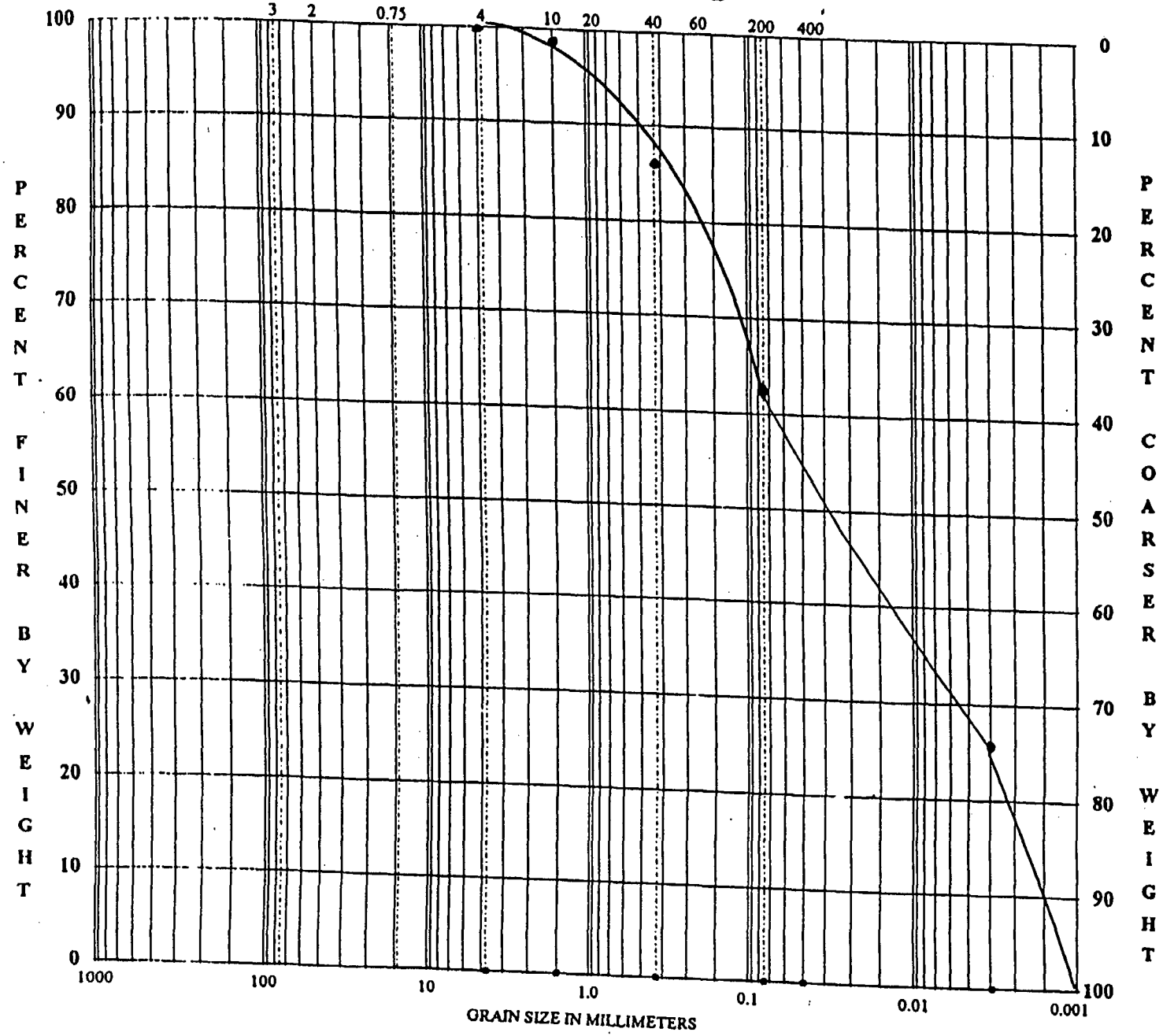
Client Name : B & V

Sample ID : CRC 2C4

Client ID : 23762.02

Date of Analysis :

RESULTS OF GRAIN SIZE TES .G



GRAIN SIZE ANALYSIS BY METHOD D422-63

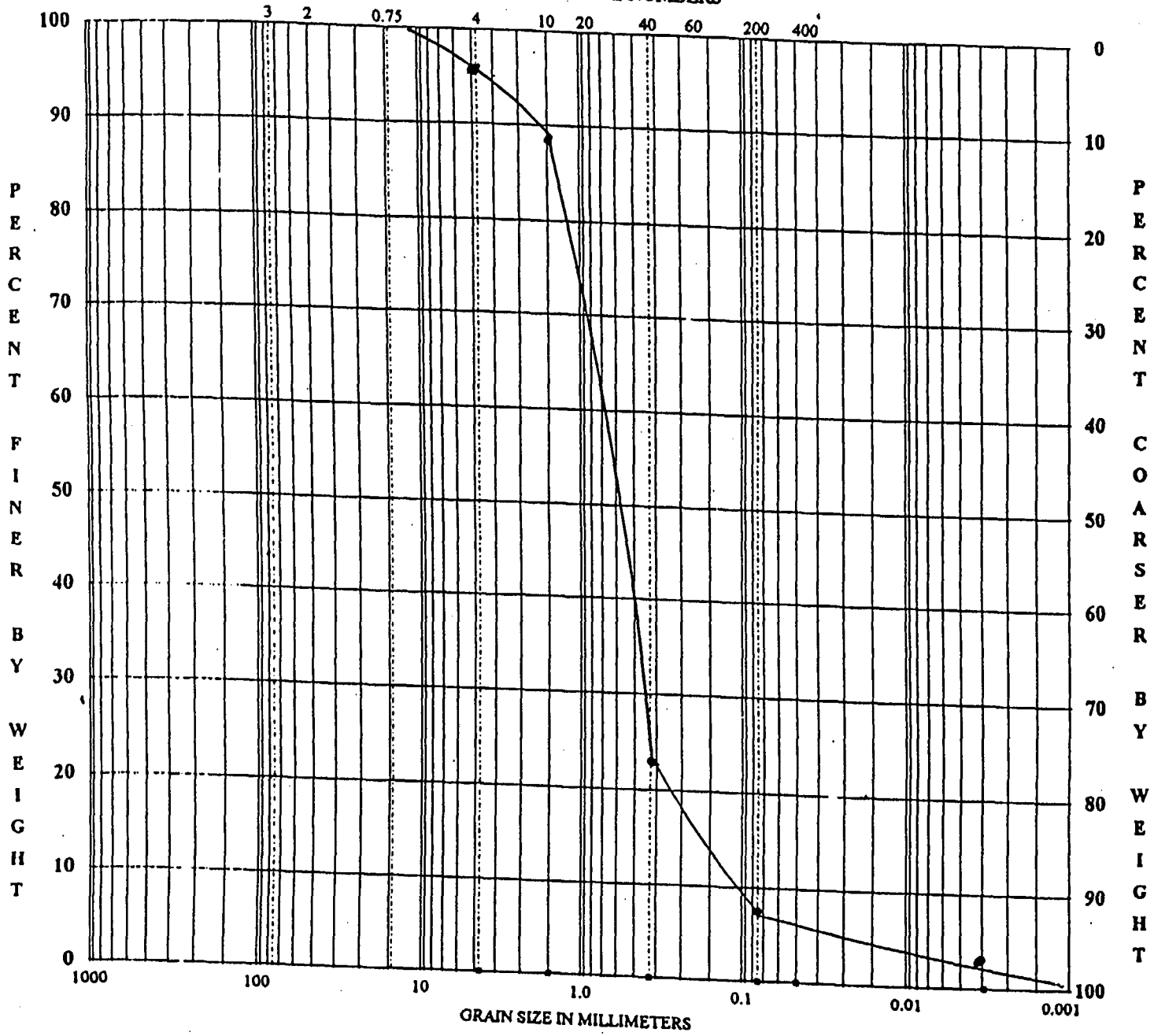
Client Name : B\C

Sample ID : 2376203

Client ID CRC2C7

Date of Analysis :

RESULTS OF GRAIN SIZE TEST G



GRAIN SIZE ANALYSIS BY METHOD D422-63

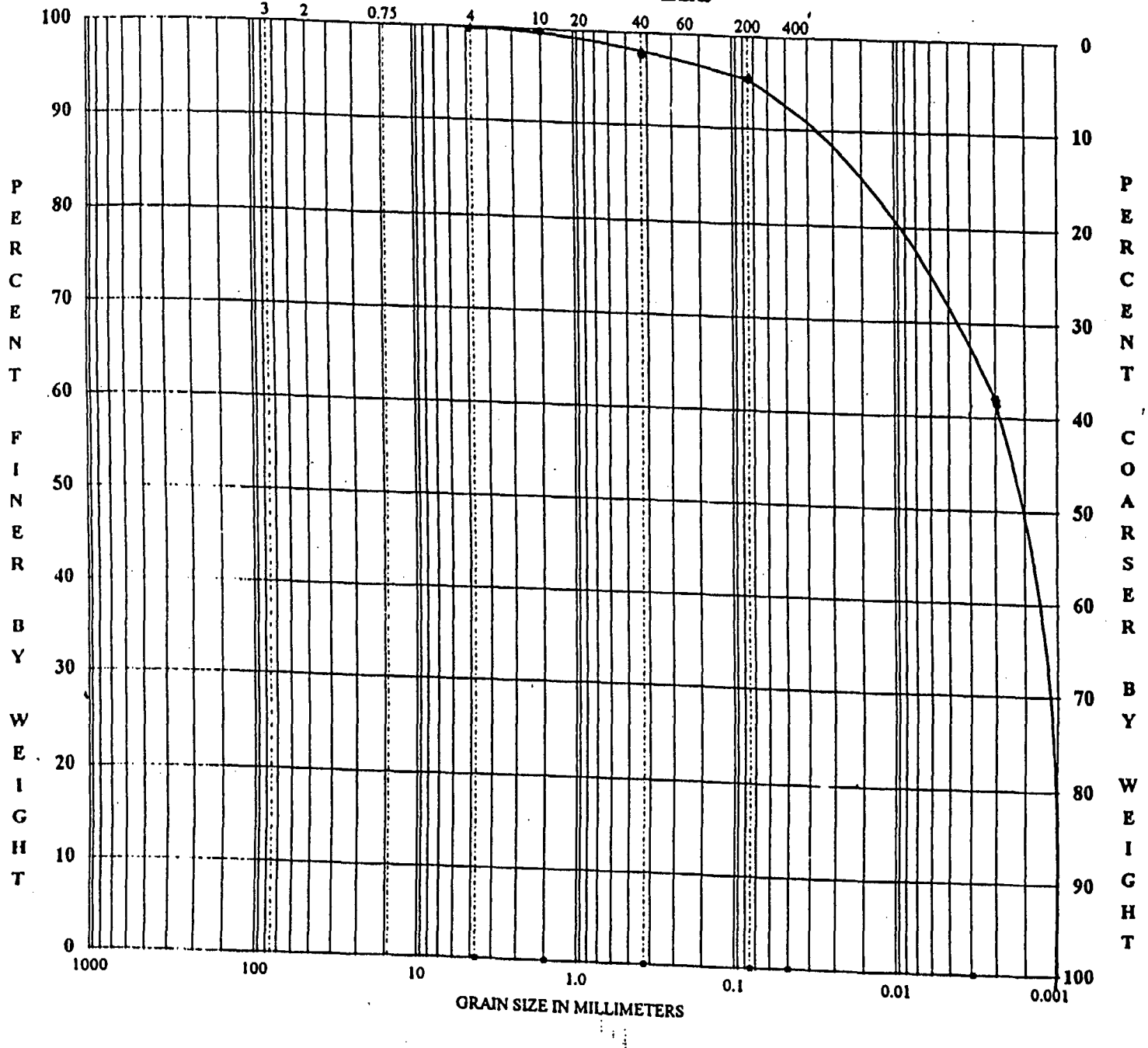
Client Name: B&V

Sample ID: 2376205

Client ID: B5TVC3

Date of Analysis:

RESULTS OF GRAIN SIZE TES .G



GRAIN SIZE ANALYSIS BY METHOD D422-63

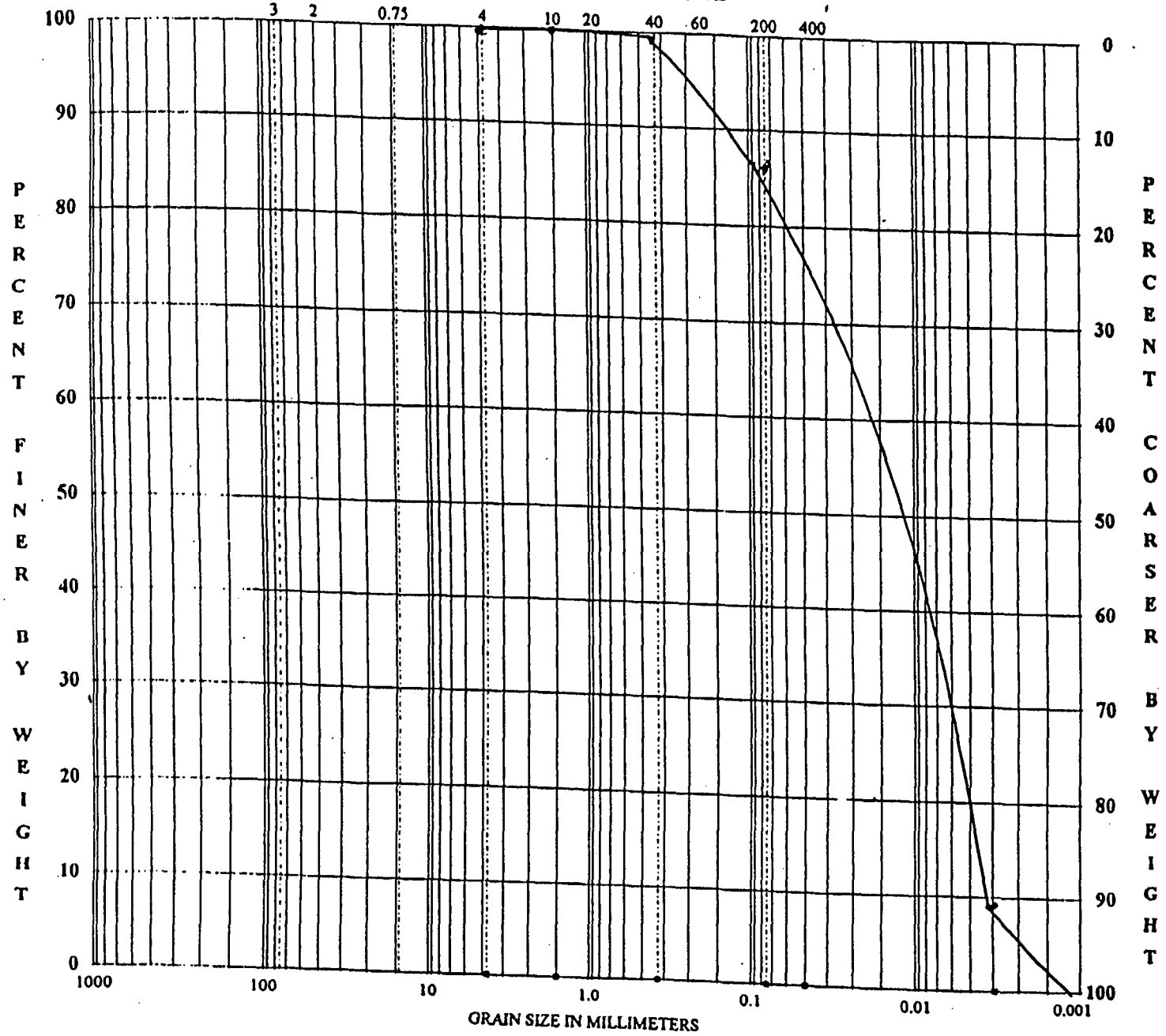
Client Name : B. V

Sample ID : 2376206

Client ID : 135TIC5

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

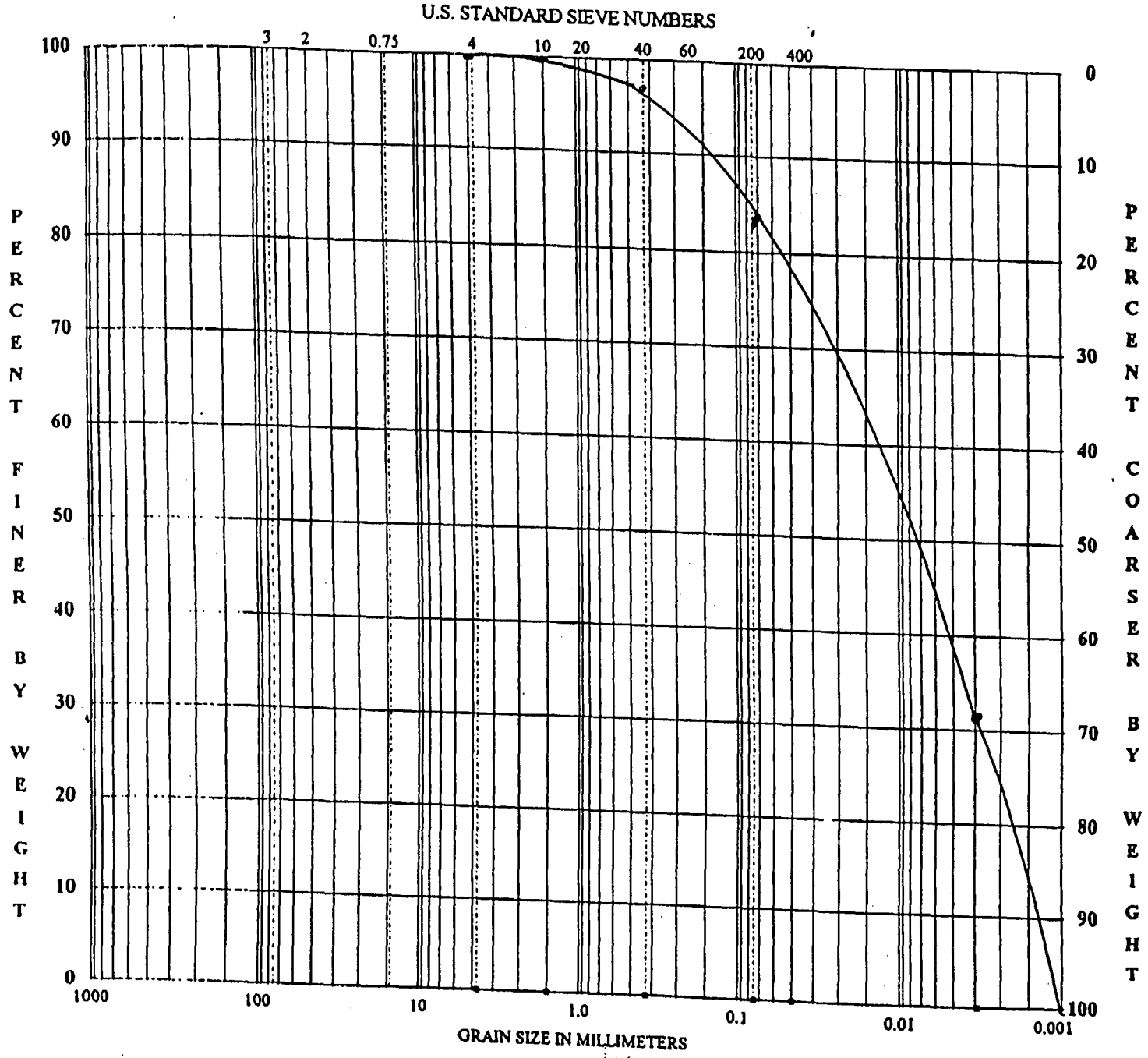
Client Name : R.V

Sample ID : 2376207

Client ID : PAT4CO

Date of Analysis :

RESULTS OF GRAIN SIZE TES. .G



GRAIN SIZE ANALYSIS BY METHOD D422-63

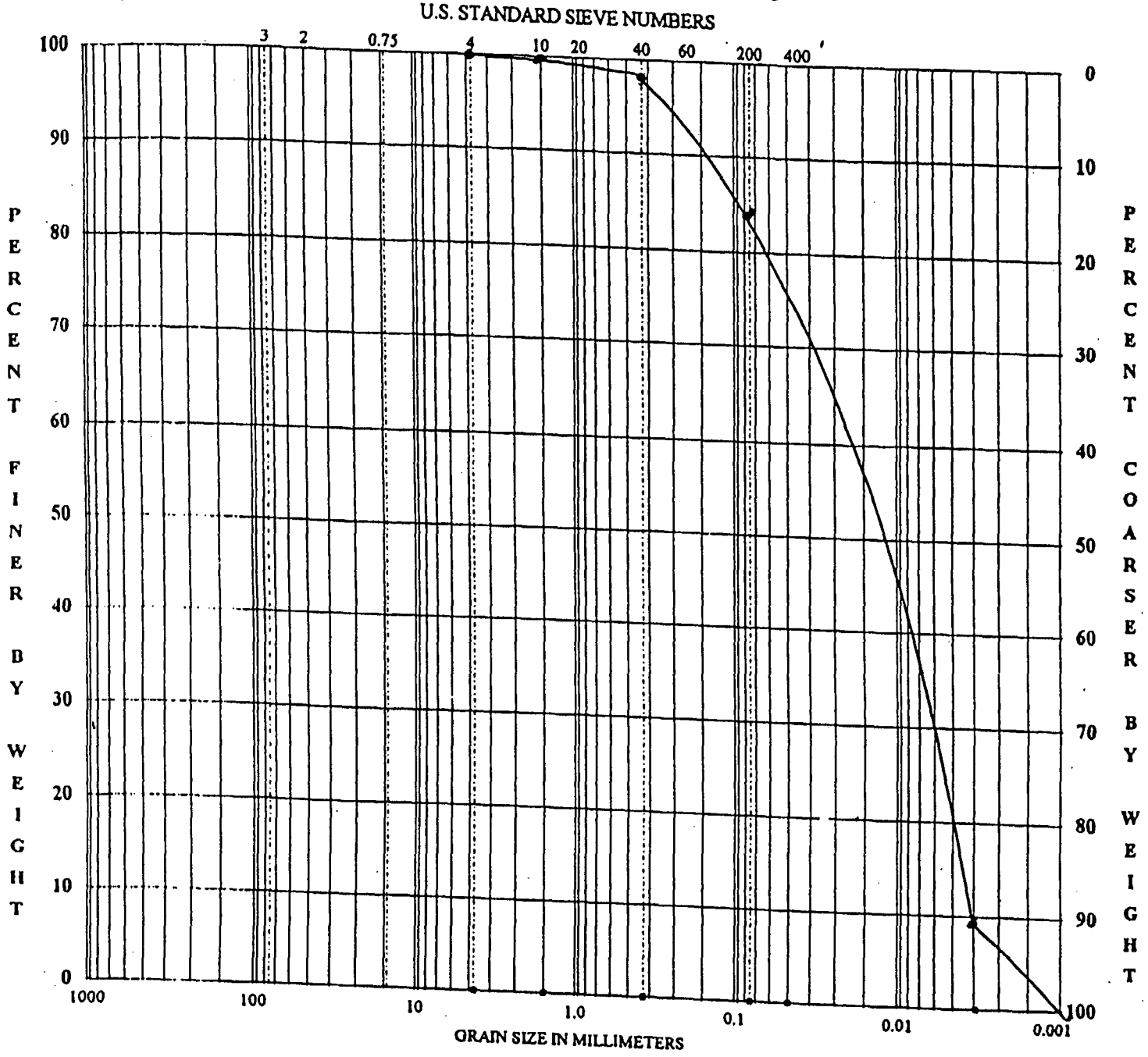
Client Name : B. V

Sample ID : 2376208

Client ID : PAT 4C 5

Date of Analysis :

RESULTS OF GRAIN SIZE TEST



GRAIN SIZE ANALYSIS BY METHOD D422-63

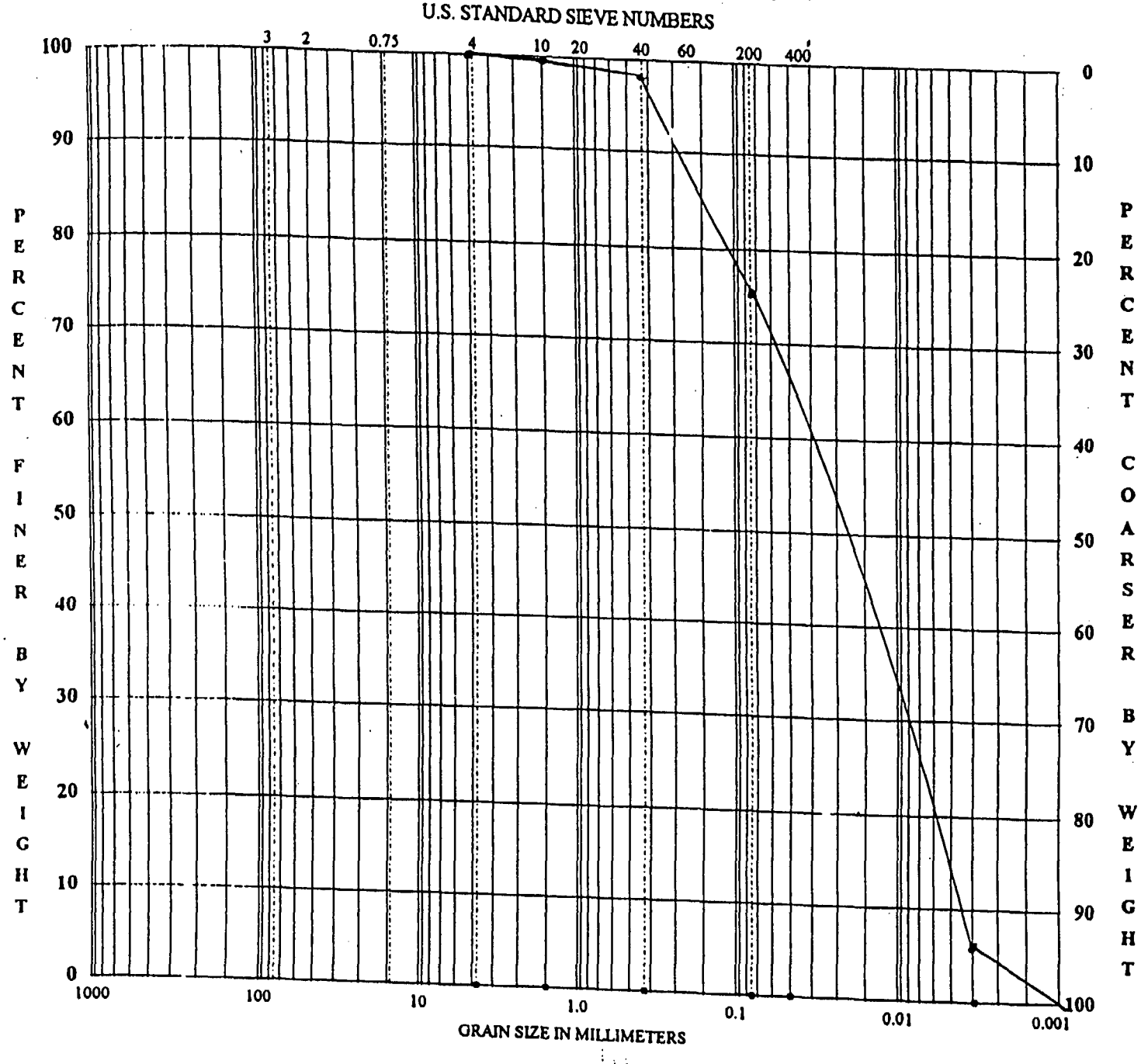
Client Name : BPV

Sample ID : 2377401

Client ID : PAT3CO

Date of Analysis :

RESULTS OF GRAIN SIZE TES IG



GRAIN SIZE ANALYSIS BY METHOD D422-63

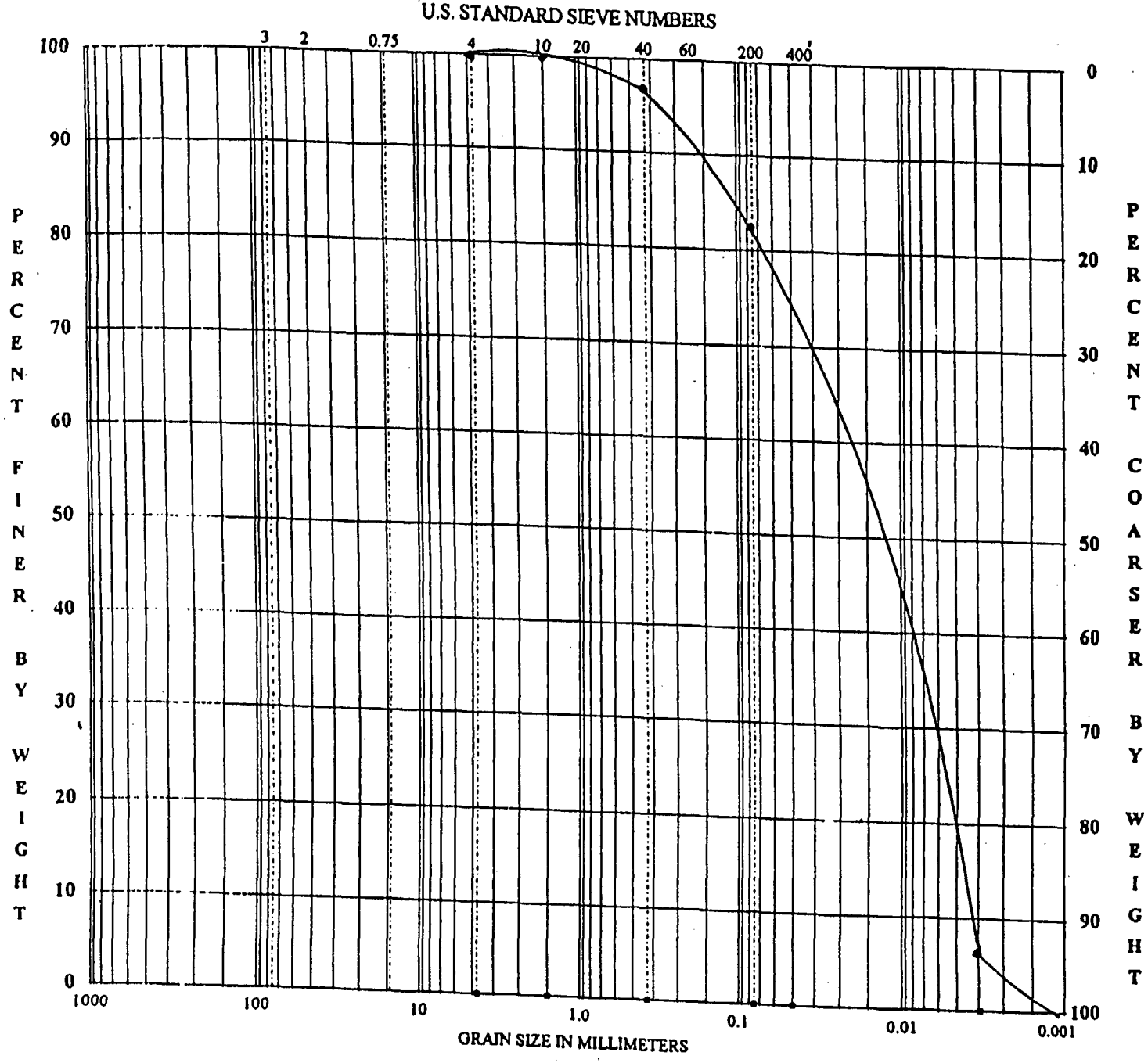
Client Name : B.V

Sample ID : PAT3CO DUP

Client ID : 237702

Date of Analysis :

RESULTS OF GRAIN SIZE TES IG



GRAIN SIZE ANALYSIS BY METHOD D422-63

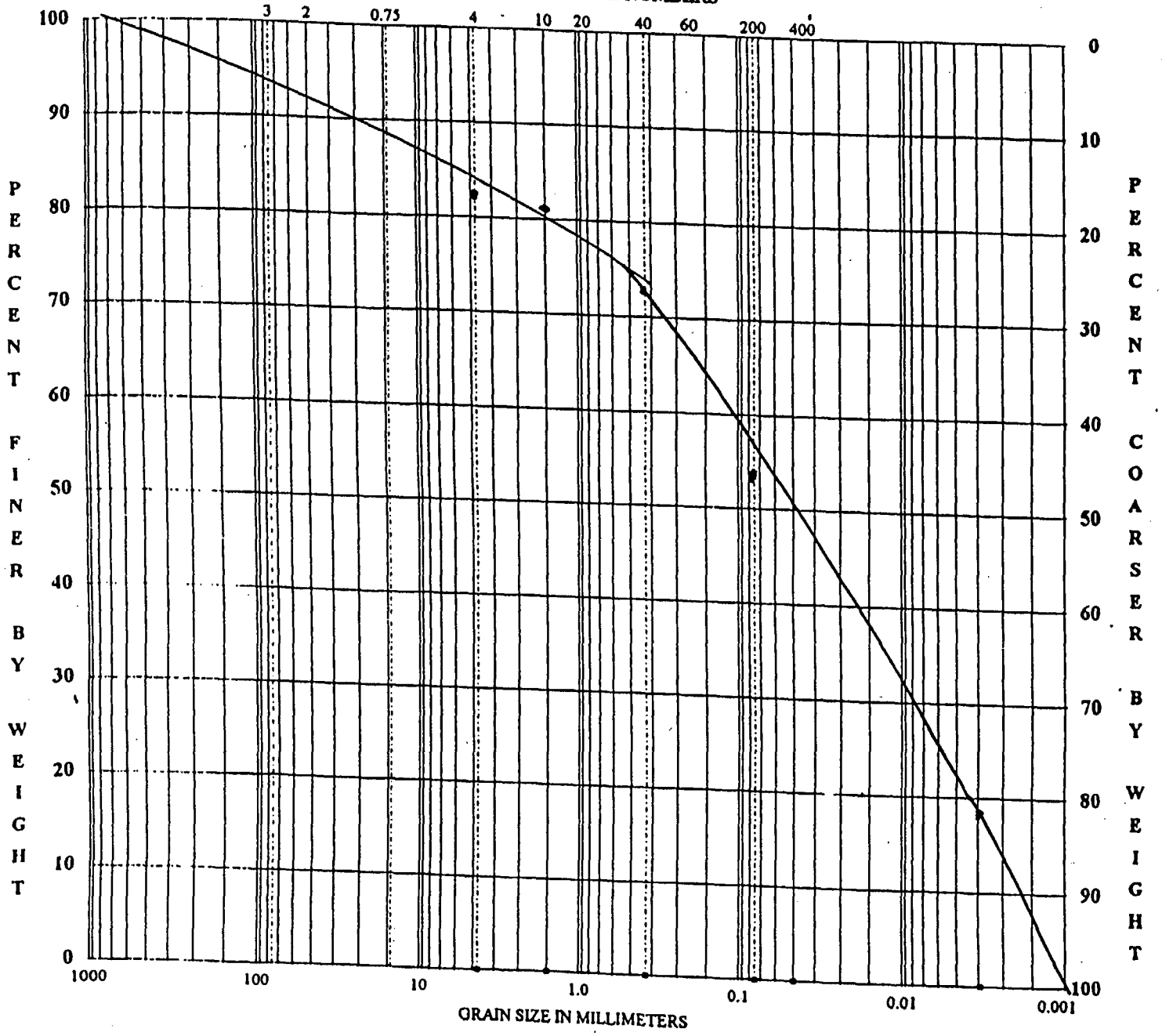
Client Name : B.V

Sample ID : 2377903

Client ID : PAT3COTRIA

Date of Analysis :

RESULTS OF GRAIN SIZE TE NG



GRAIN SIZE ANALYSIS BY METHOD D422-63

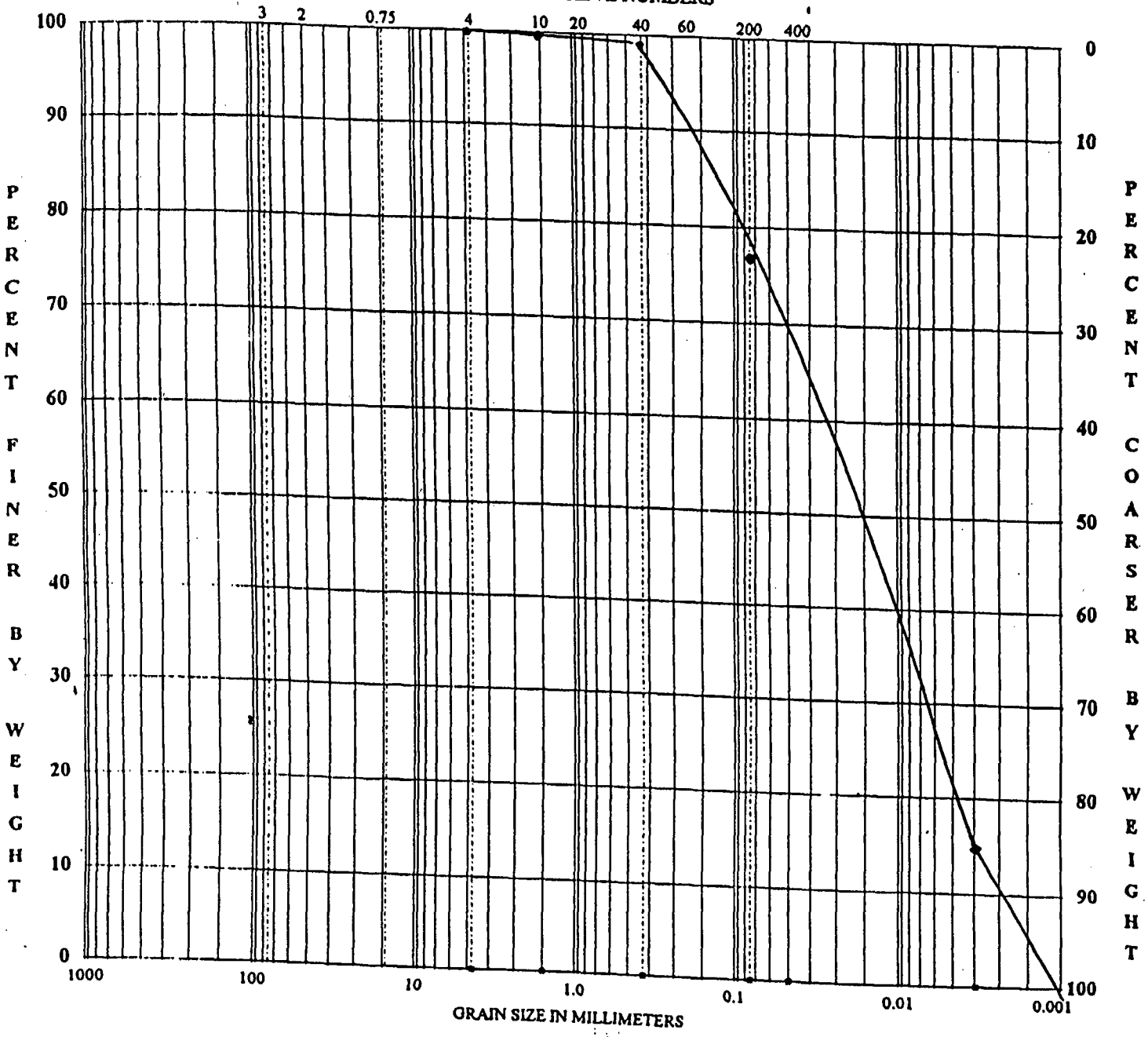
Client Name : B.V

Sample ID : PAT3C 8

Client ID : 2377905

Date of Analysis :

RESULTS OF GRAIN SIZE TESTING



GRAIN SIZE ANALYSIS BY METHOD D422-63

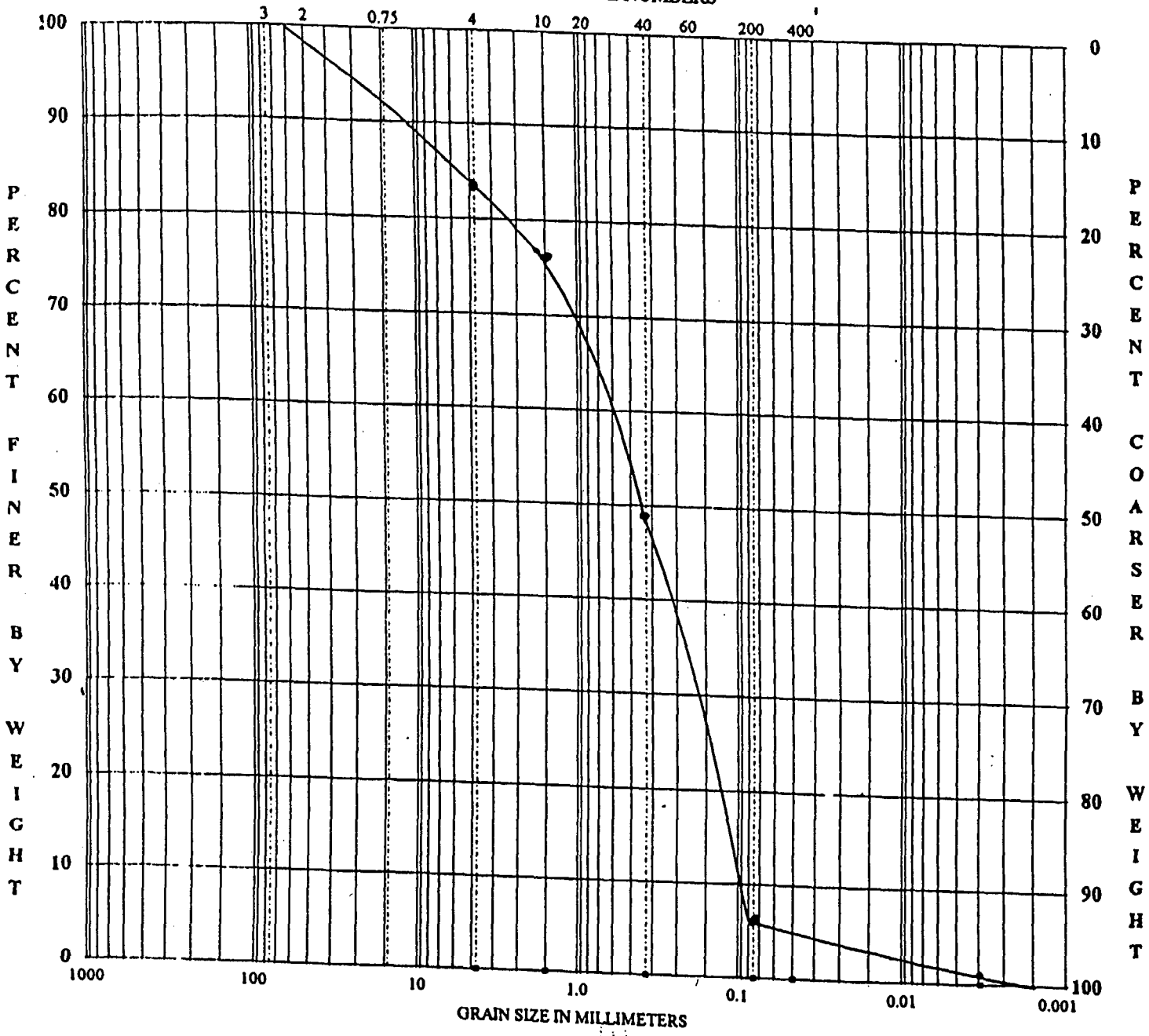
Client Name : B.V

Sample ID : 2377906

Client ID : PAT2CO

Date of Analysis :

RESULTS OF GRAIN SIZE TESTING



GRAIN SIZE ANALYSIS BY METHOD D422-63

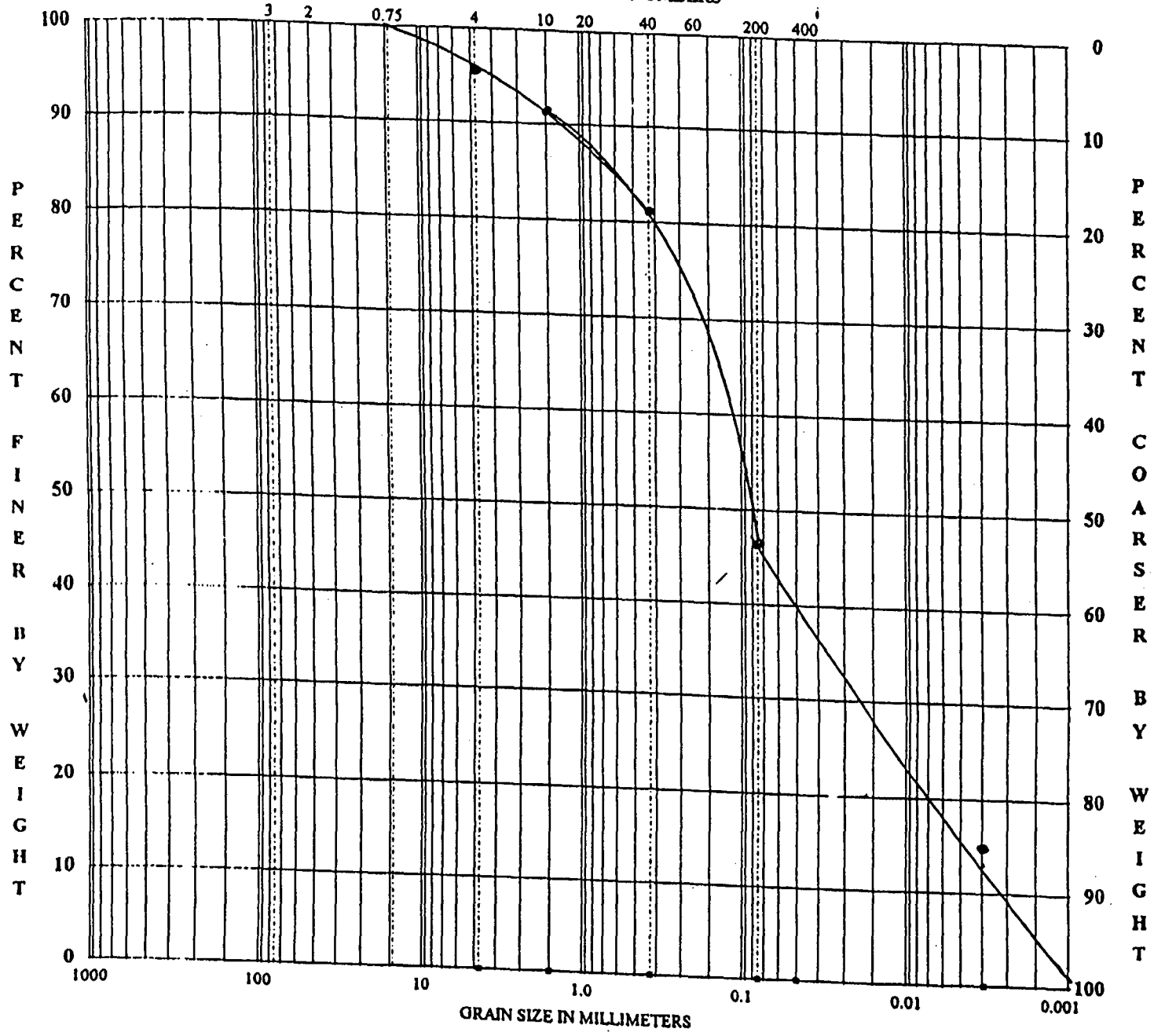
Client Name : B.V

Sample ID : 2377908

Client ID : PAT2C6

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

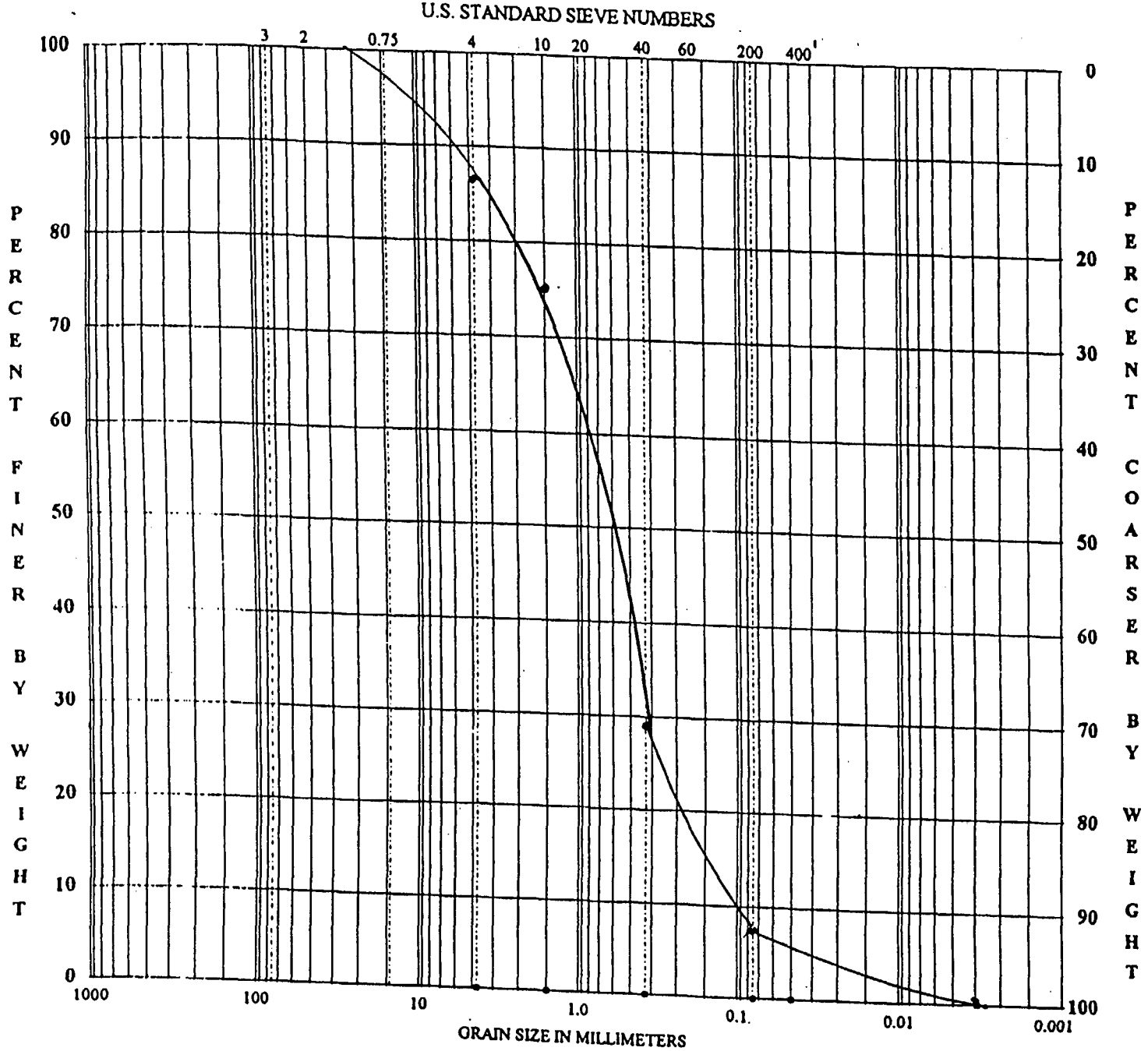
Client Name : B.V

Sample ID : 2377910

Client ID : PATICO

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

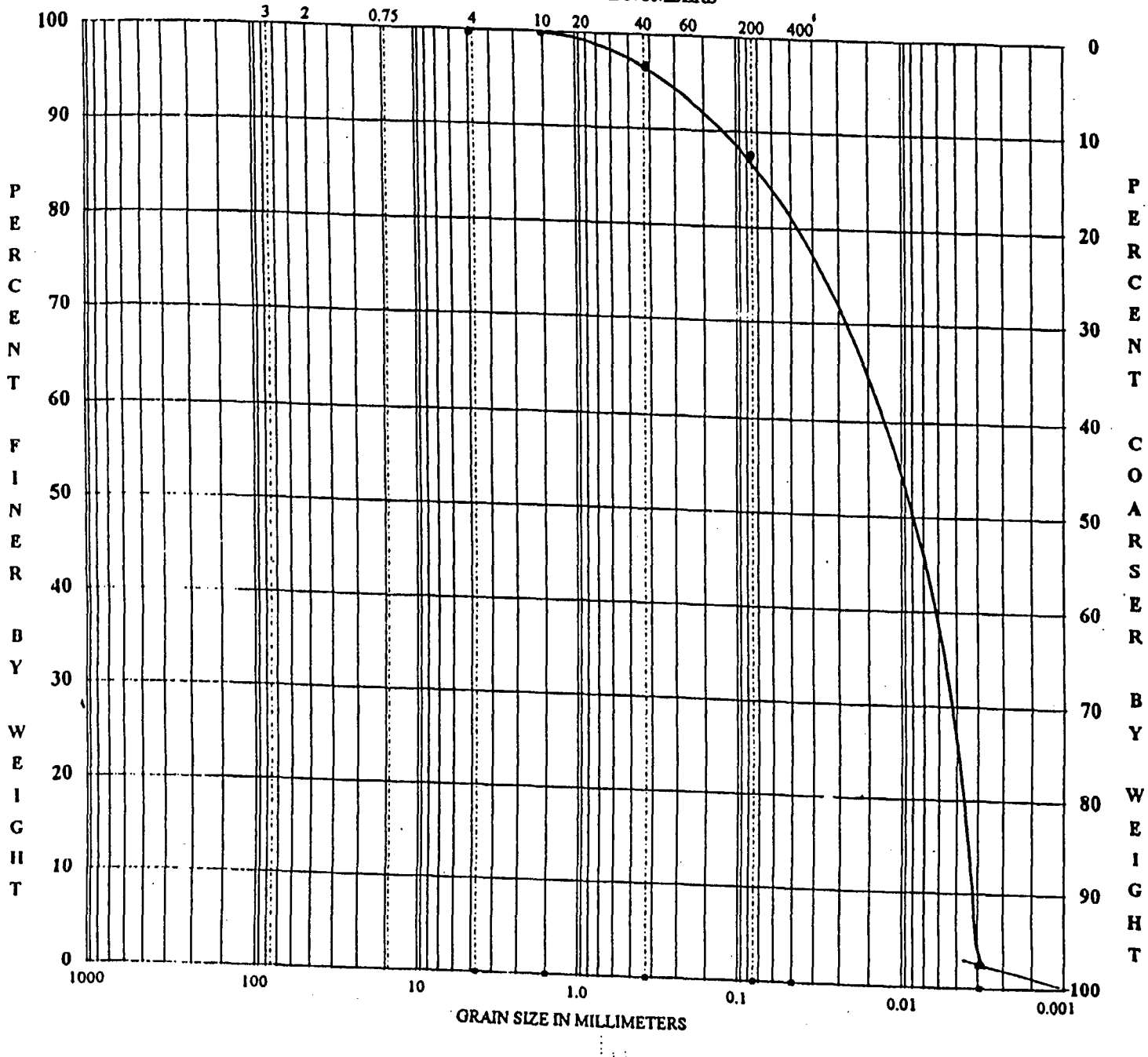
Client Name : BLV

Sample ID : 2377911

Client ID : PATIC 2

Date of Analysis :

RESULTS OF GRAIN SIZE TE[illegible]G



GRAIN SIZE ANALYSIS BY METHOD D422-63

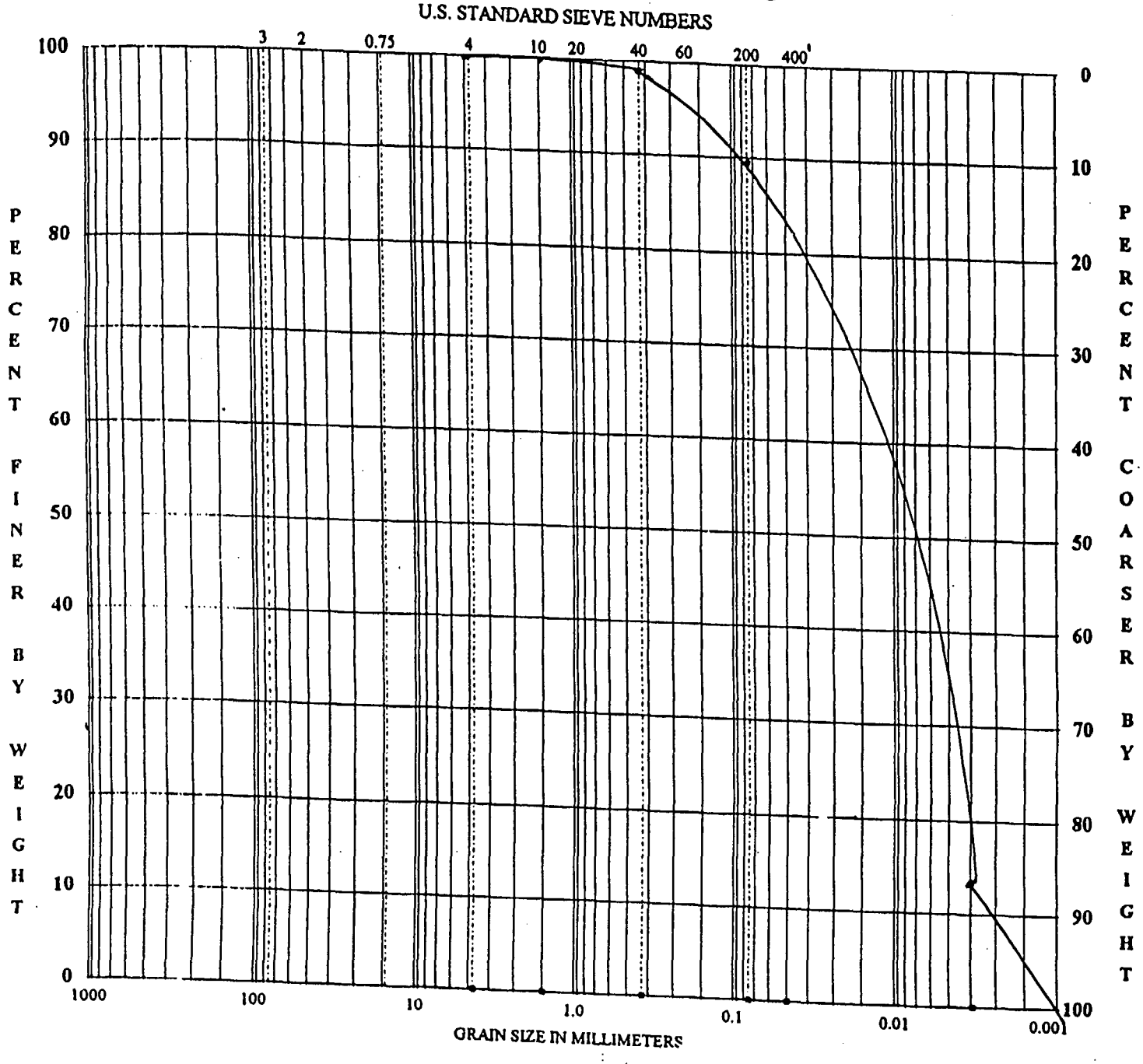
Client Name : B.V

Sample ID : 2377912

Client ID : CRC160

Date of Analysis :

RESULTS OF GRAIN SIZE TES ;G



GRAIN SIZE ANALYSIS BY METHOD D422-63

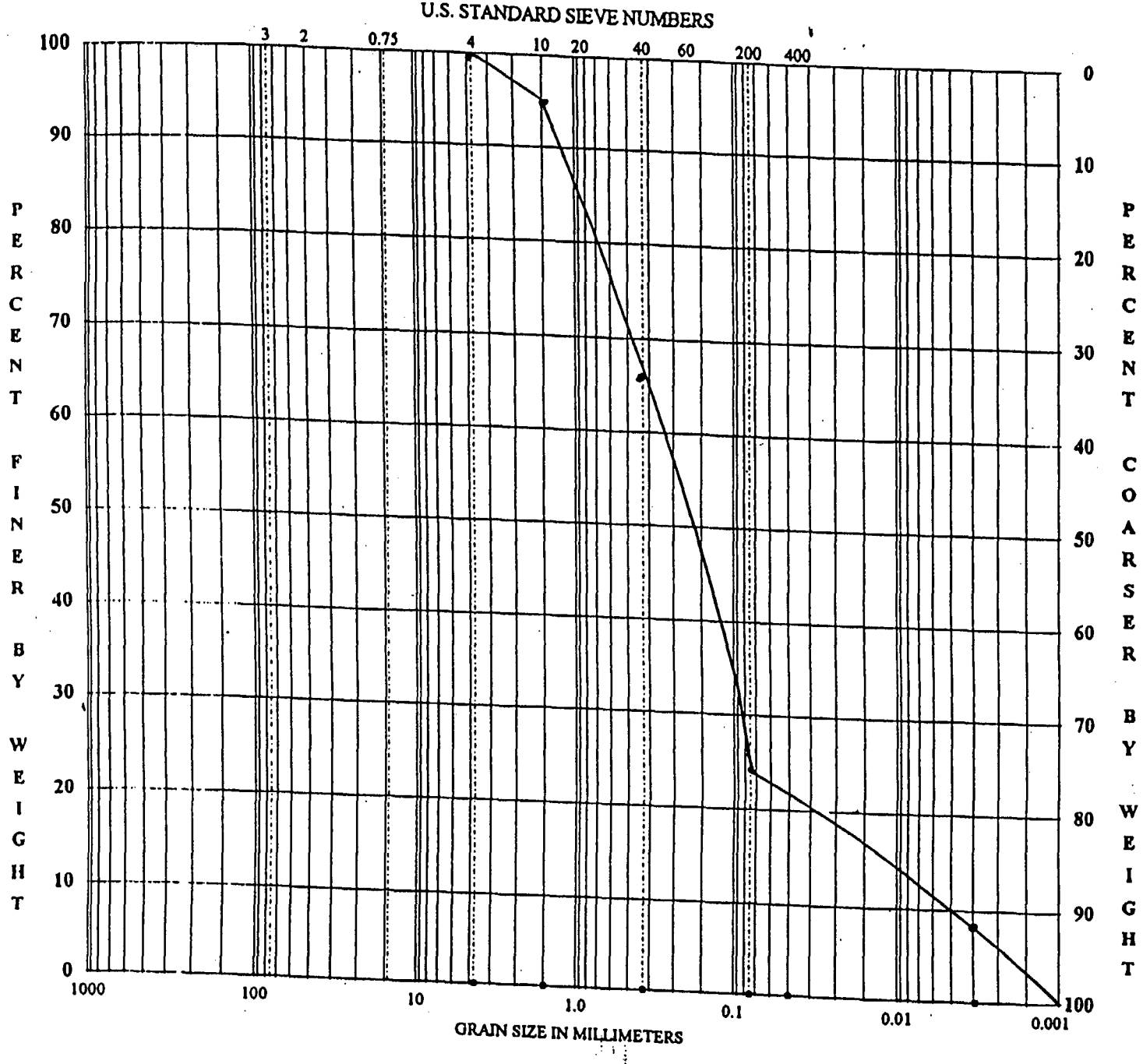
Client Name : B & V

Sample ID : 2377913

Client ID : CRC 163

Date of Analysis :

RESULTS OF GRAIN SIZE TES. .G



GRAIN SIZE ANALYSIS BY METHOD D422-63

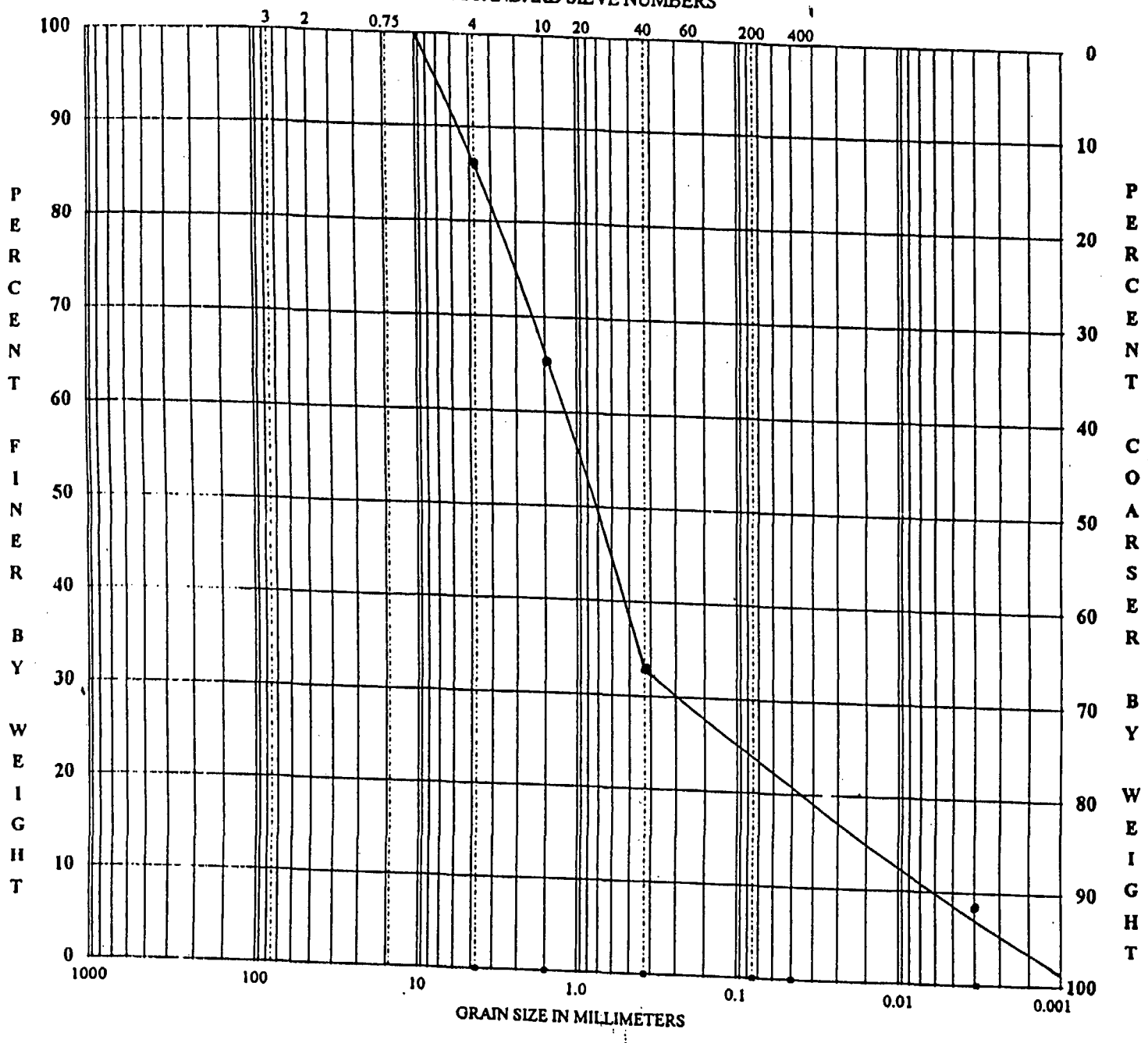
Client Name: B+V

Sample ID: 2379003

Client ID: SM2-C01

Date of Analysis:

RESULTS OF GRAIN SIZE TESTING



GRAIN SIZE ANALYSIS BY METHOD D422-63

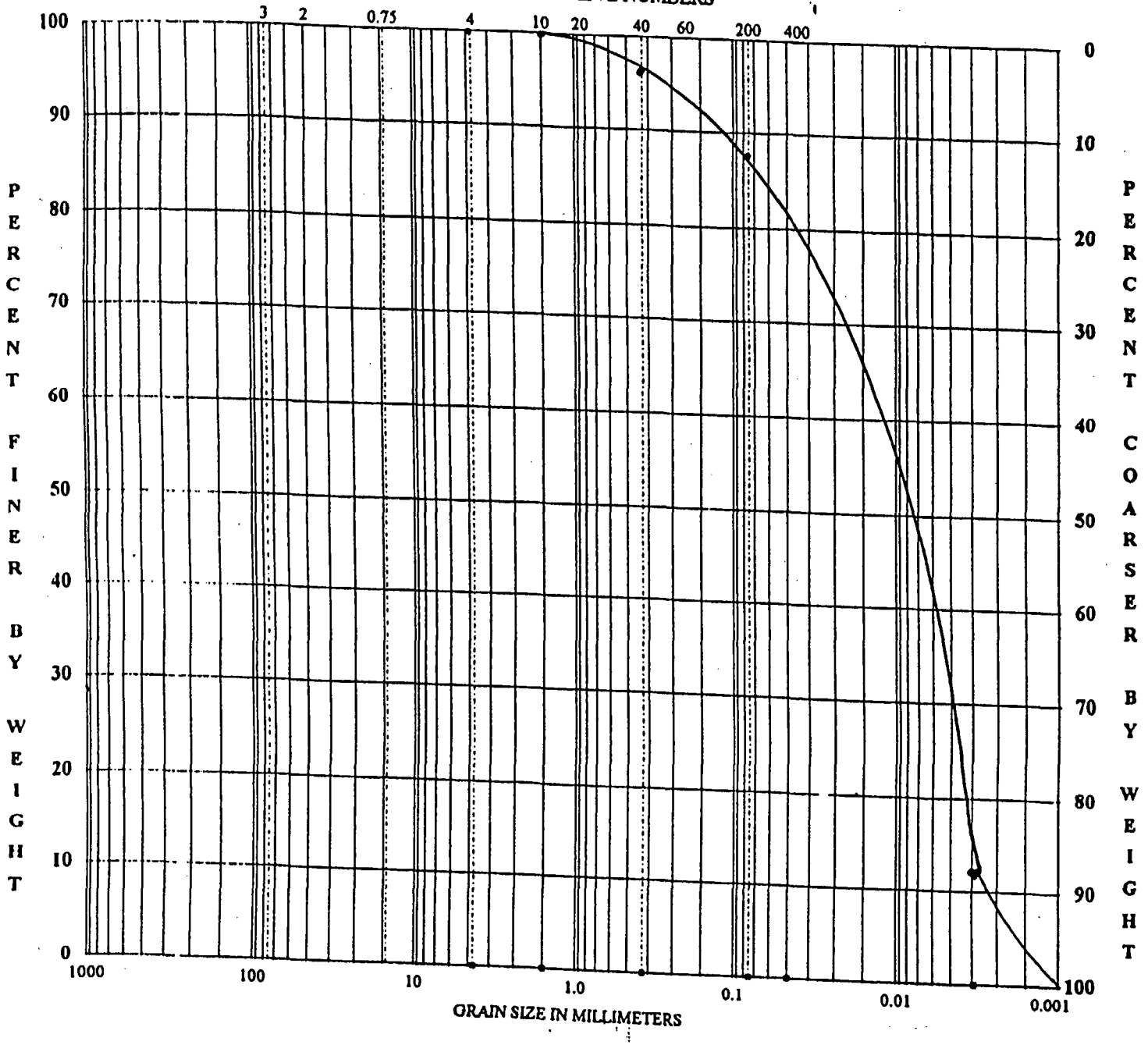
Client Name: B & V

Sample ID: 23790-04

Client ID: SM2C02

Date of Analysis:

RESULTS OF GRAIN SIZE TESTING



GRAIN SIZE ANALYSIS BY METHOD D422-63

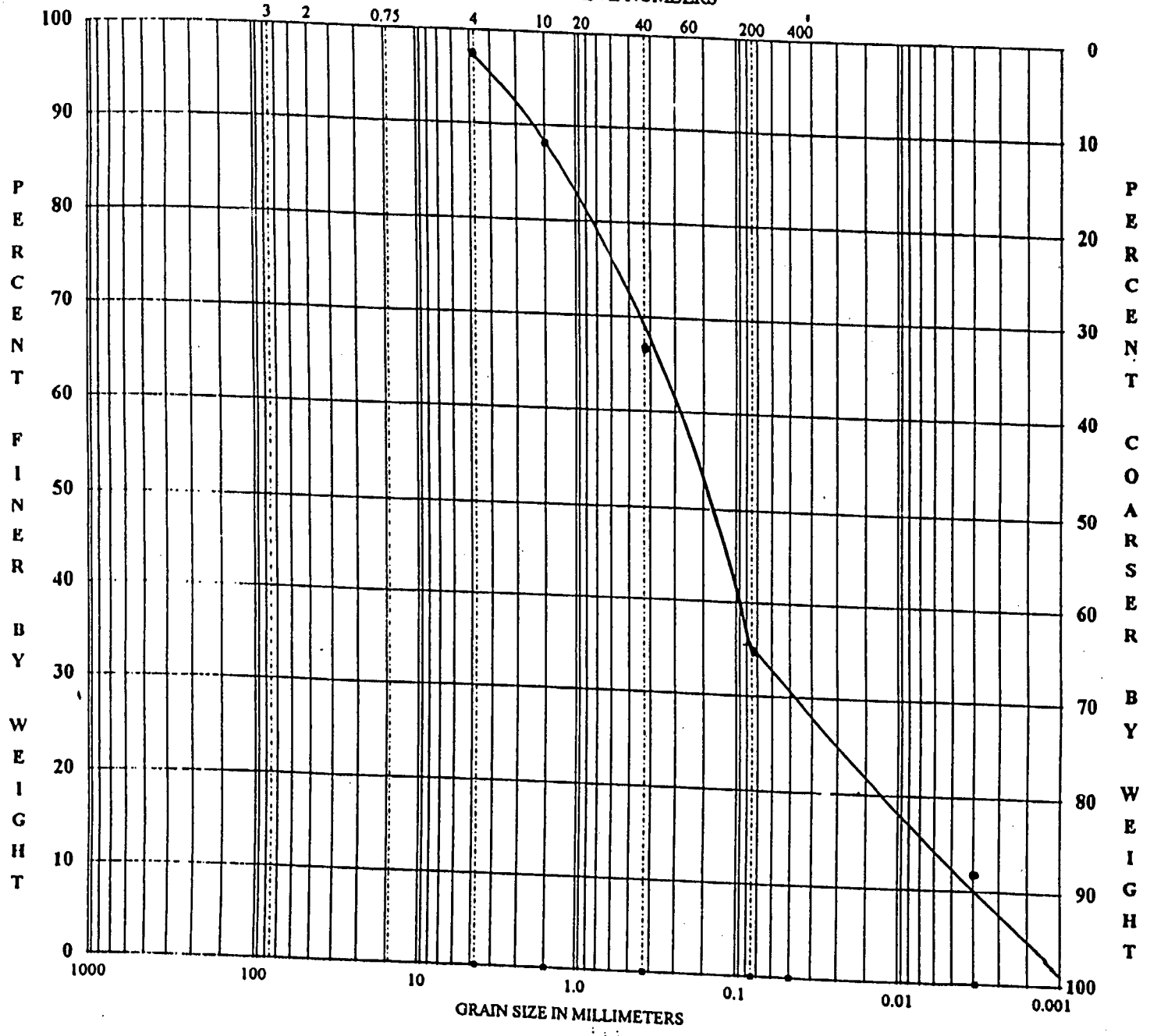
Client Name : B+V

Sample ID : 2379005

Client ID : BP01C0

Date of Analysis :

RESULTS OF GRAIN SIZE TE NG



GRAIN SIZE ANALYSIS BY METHOD D422-63

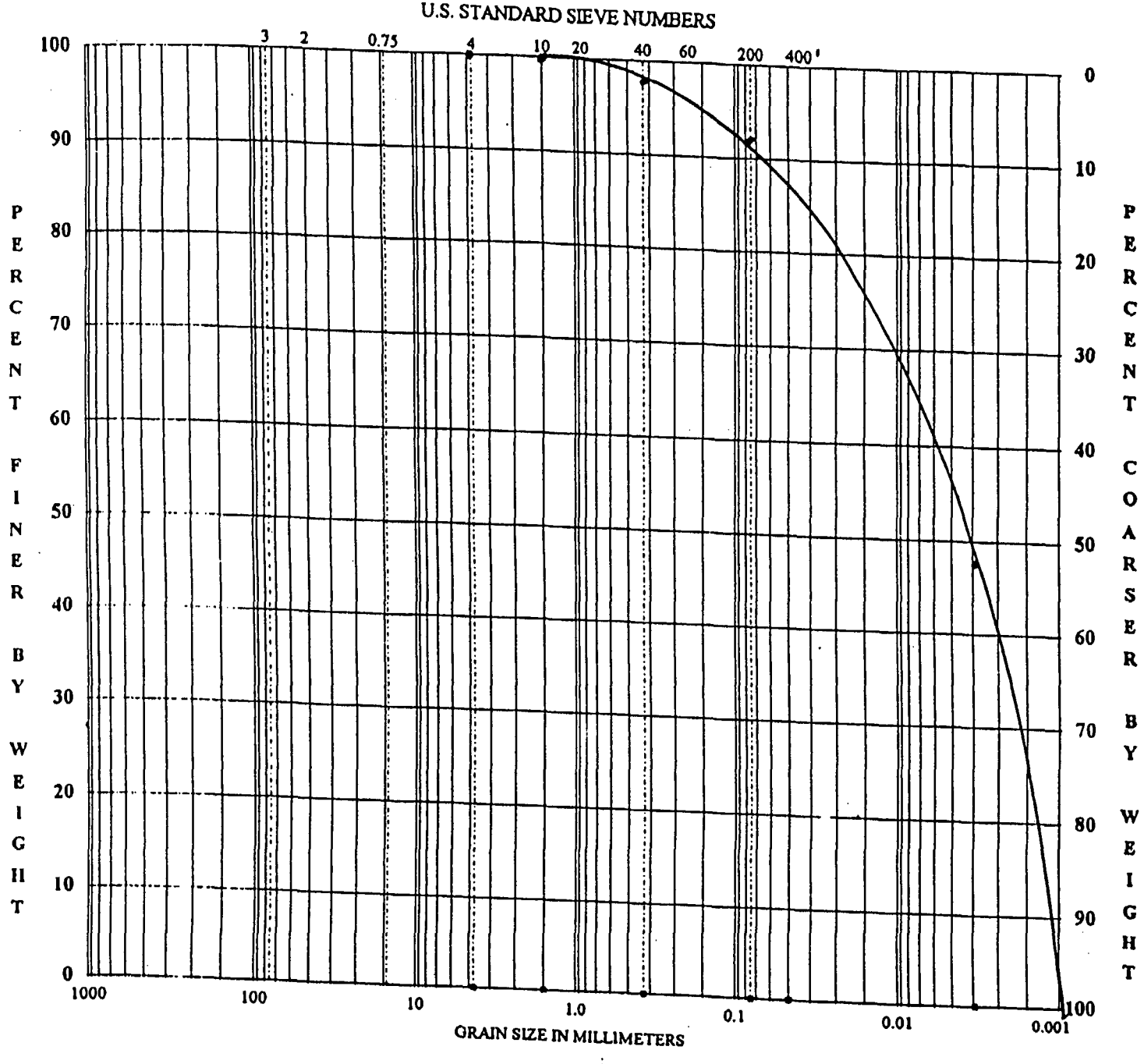
Client Name : B & L

Sample ID : 2379006

Client ID : BP01C6

Date of Analysis :

RESULTS OF GRAIN SIZE TEST



GRAIN SIZE ANALYSIS BY METHOD D422-63

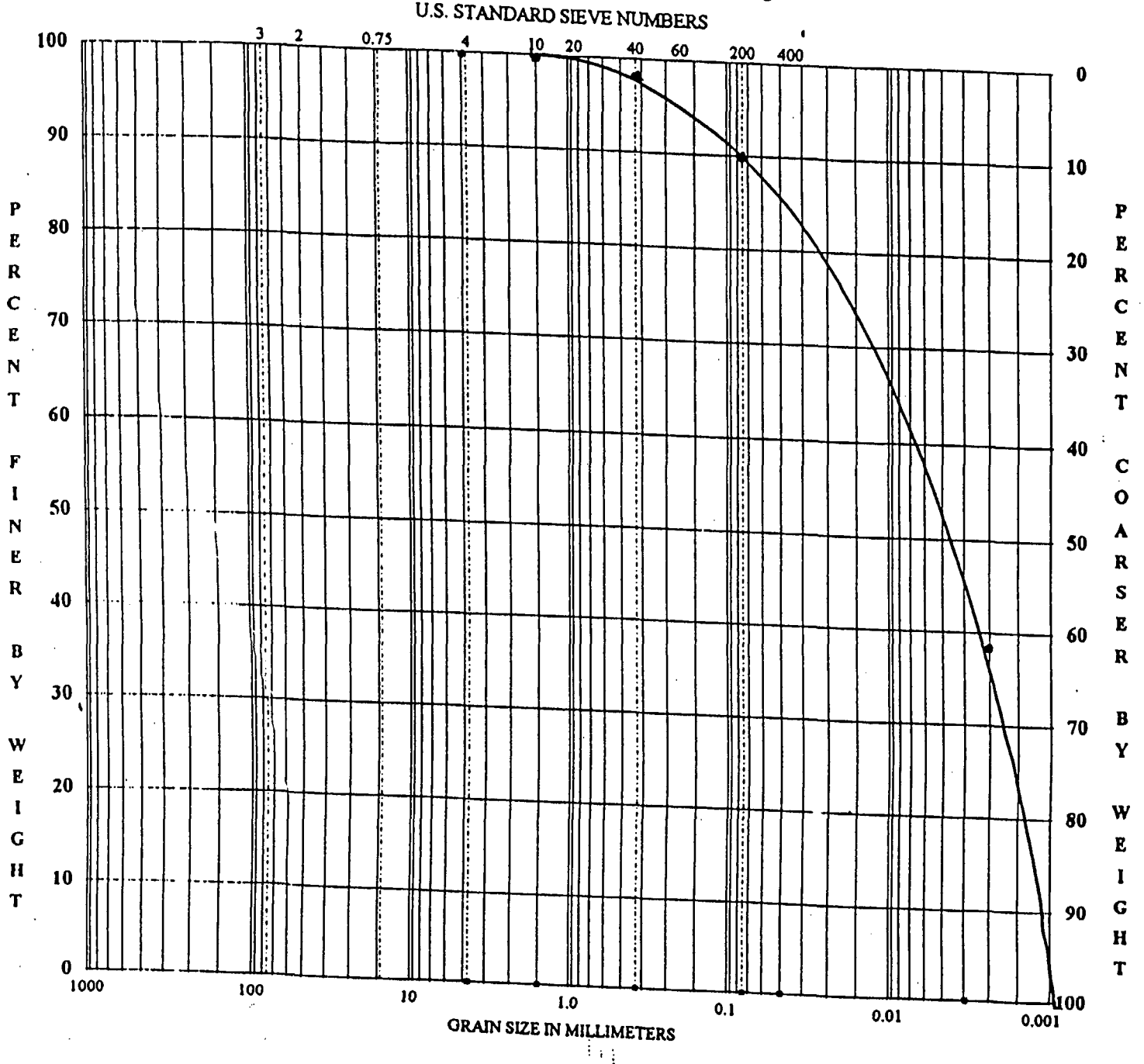
Client Name : B&V

Sample ID : 2379007

Client ID : BP02C0

Date of Analysis :

RESULTS OF GRAIN SIZE TES NG



GRAIN SIZE ANALYSIS BY METHOD D422-63

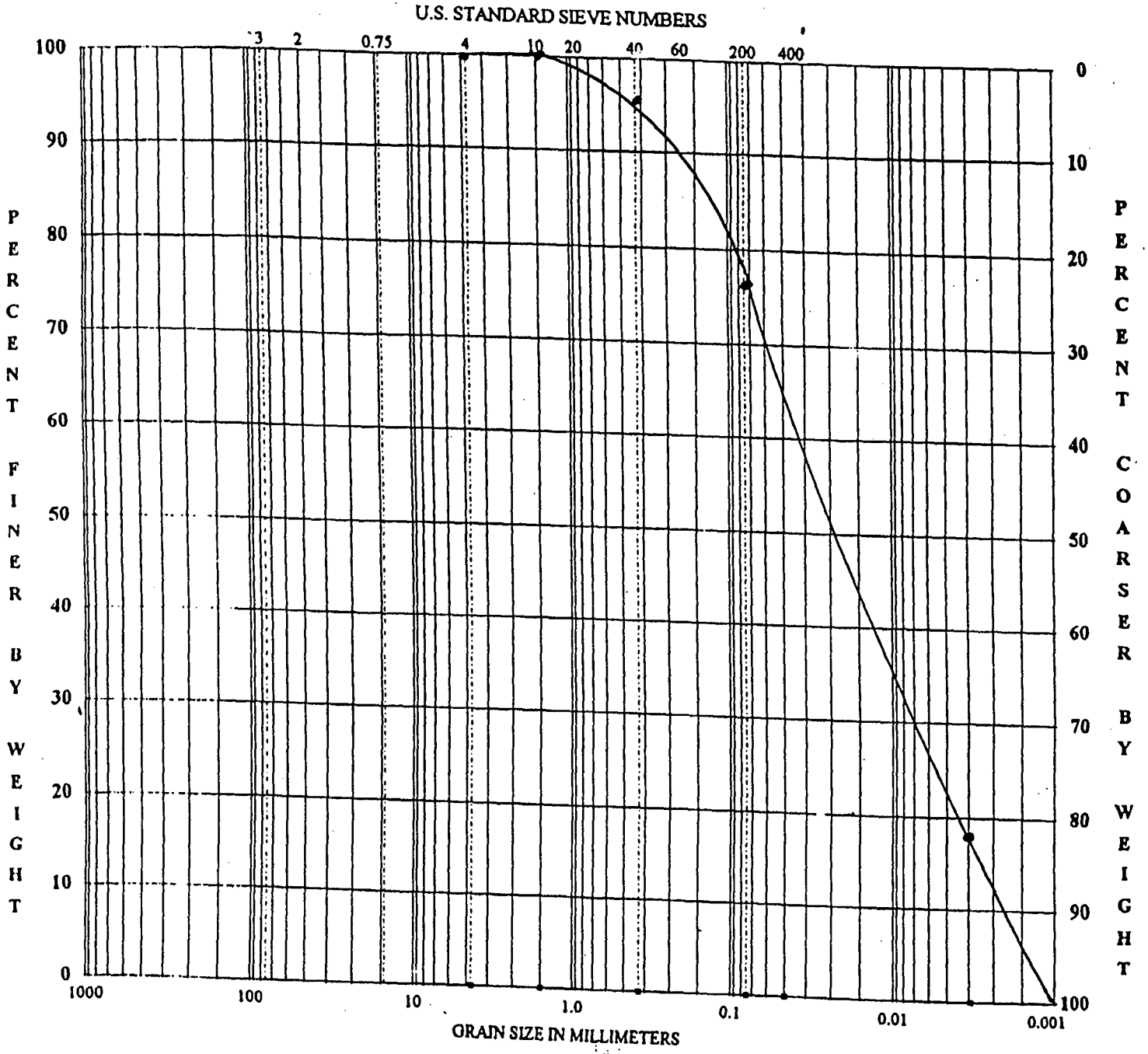
Client Name: B+V

Sample ID: 2379008

Client ID: BP02C4

Date of Analysis:

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

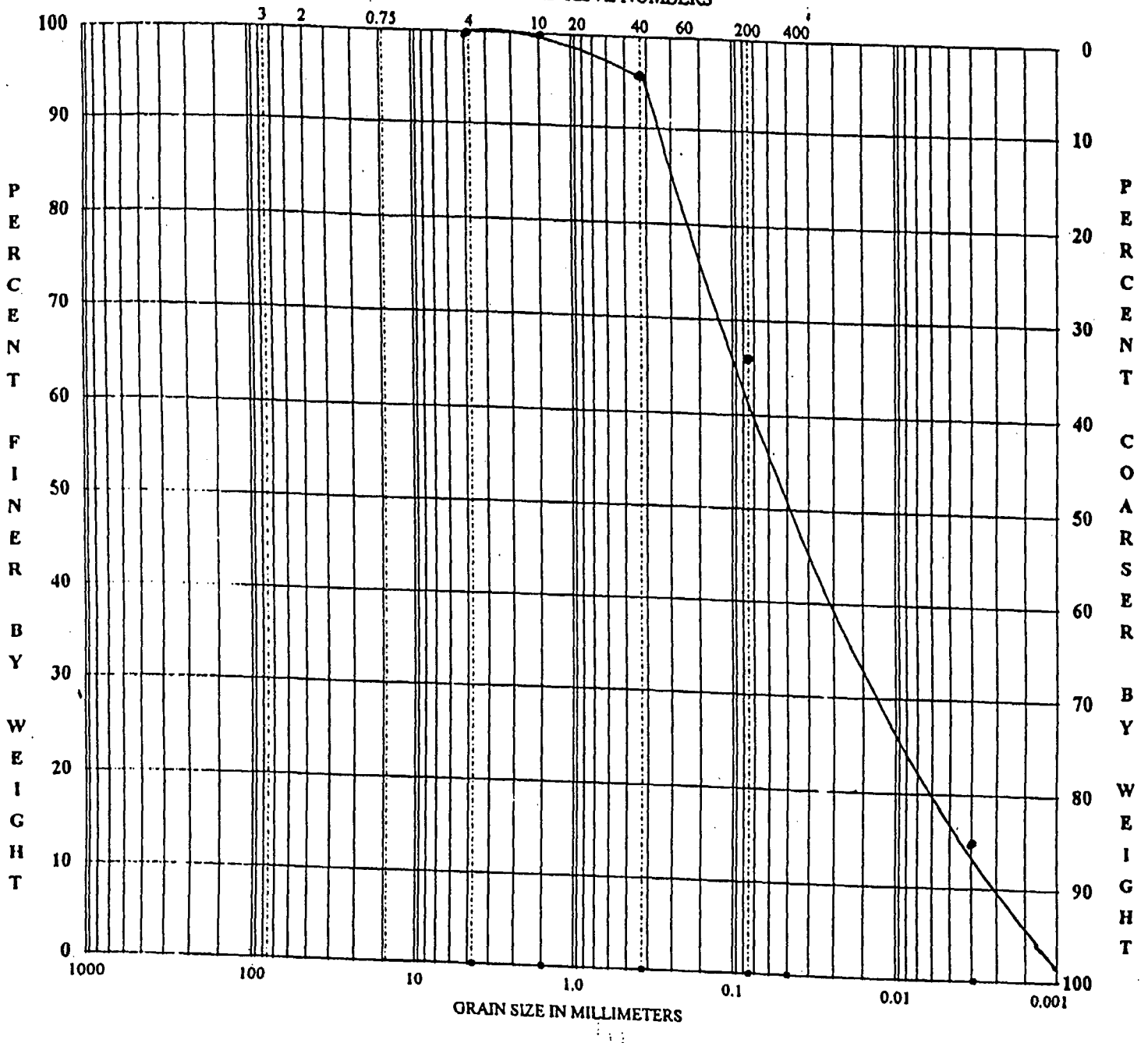
Client Name : B & V

Sample ID : 2379009

Client ID : SHICO

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

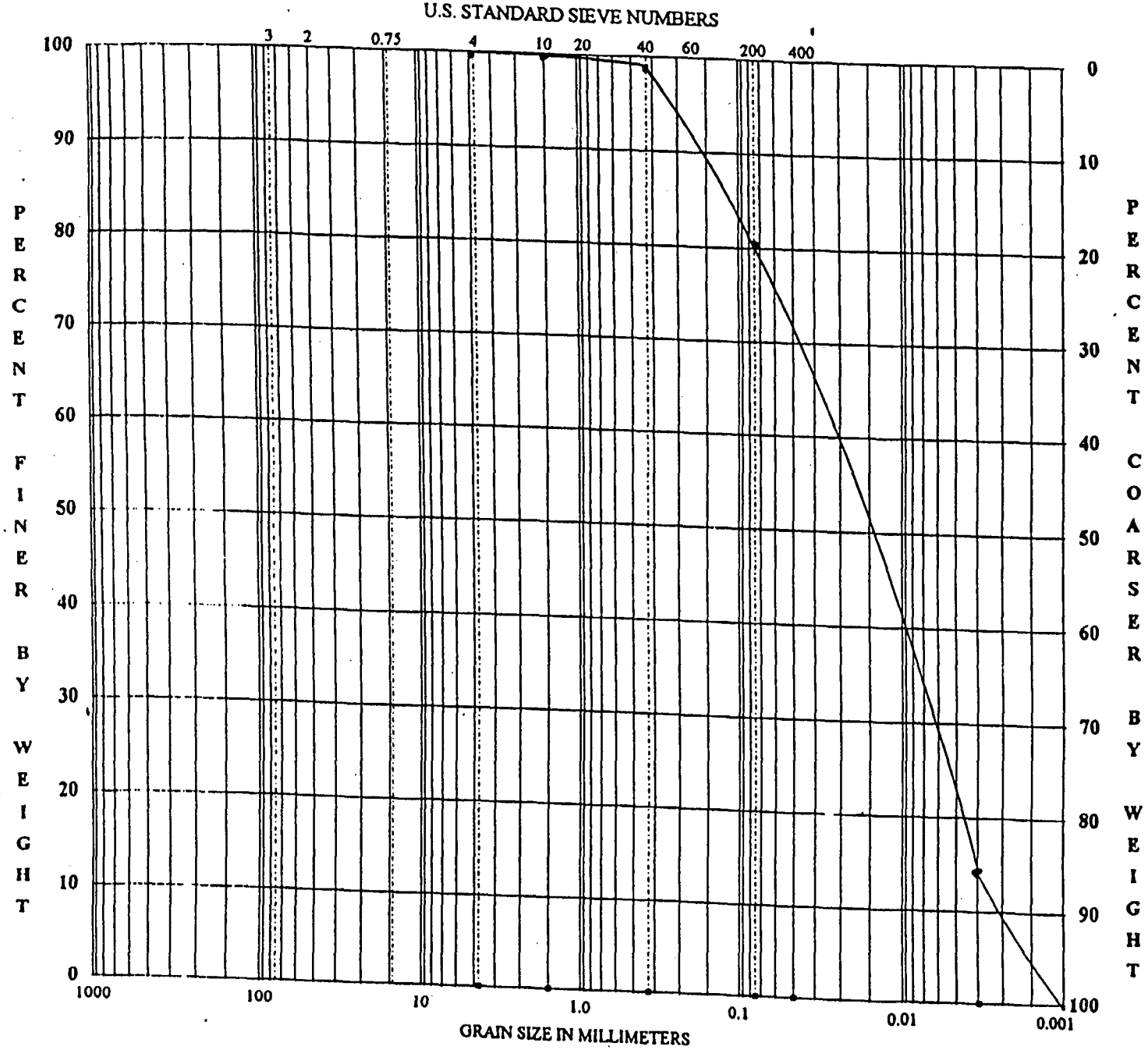
Client Name : B&V

Sample ID : 2379010

Client ID : SHIC6

Date of Analysis :

RESULTS OF GRAIN SIZE TESTING



GRAIN SIZE ANALYSIS BY METHOD D422-63

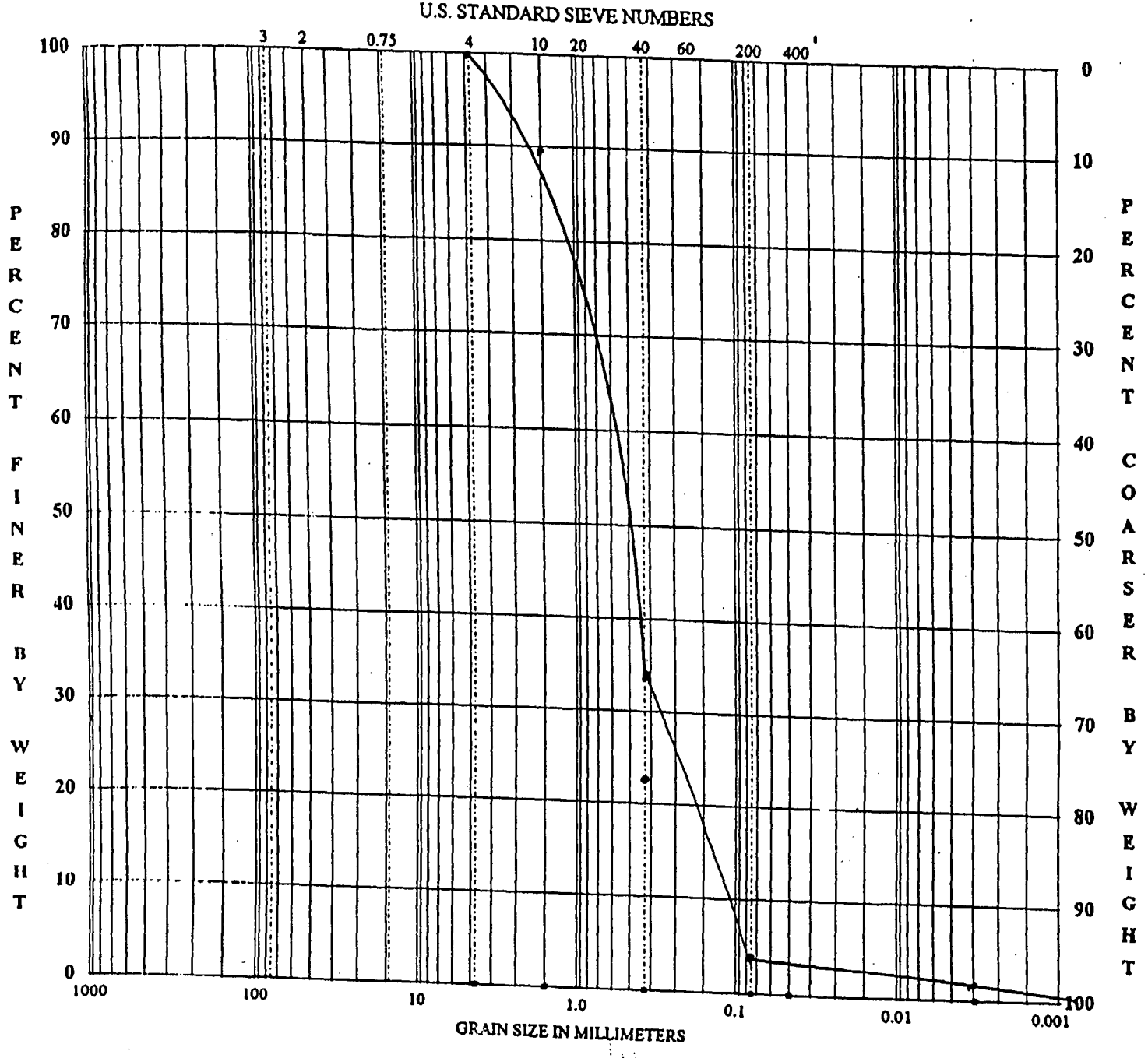
Client Name : B & V

Sample ID : 2379011

Client ID : SH12CO

Date of Analysis :

RESULTS OF GRAIN SIZE TEST



GRAIN SIZE ANALYSIS BY METHOD D422-63

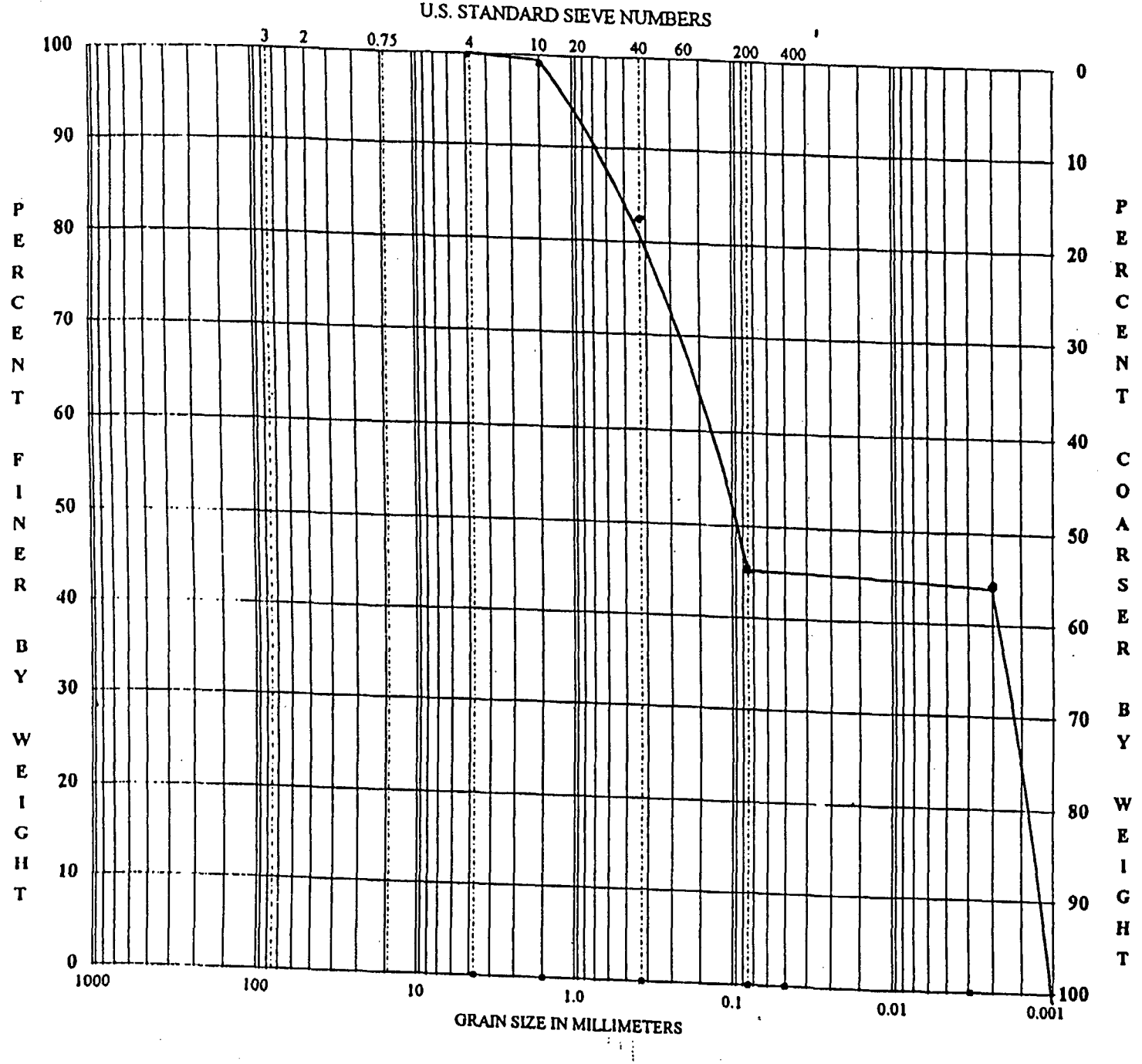
Client Name : B&V

Sample ID : 2379012

Client ID : SH12C3

Date of Analysis :

RESULTS OF GRAIN SIZE TEST



GRAIN SIZE ANALYSIS BY METHOD D422-63

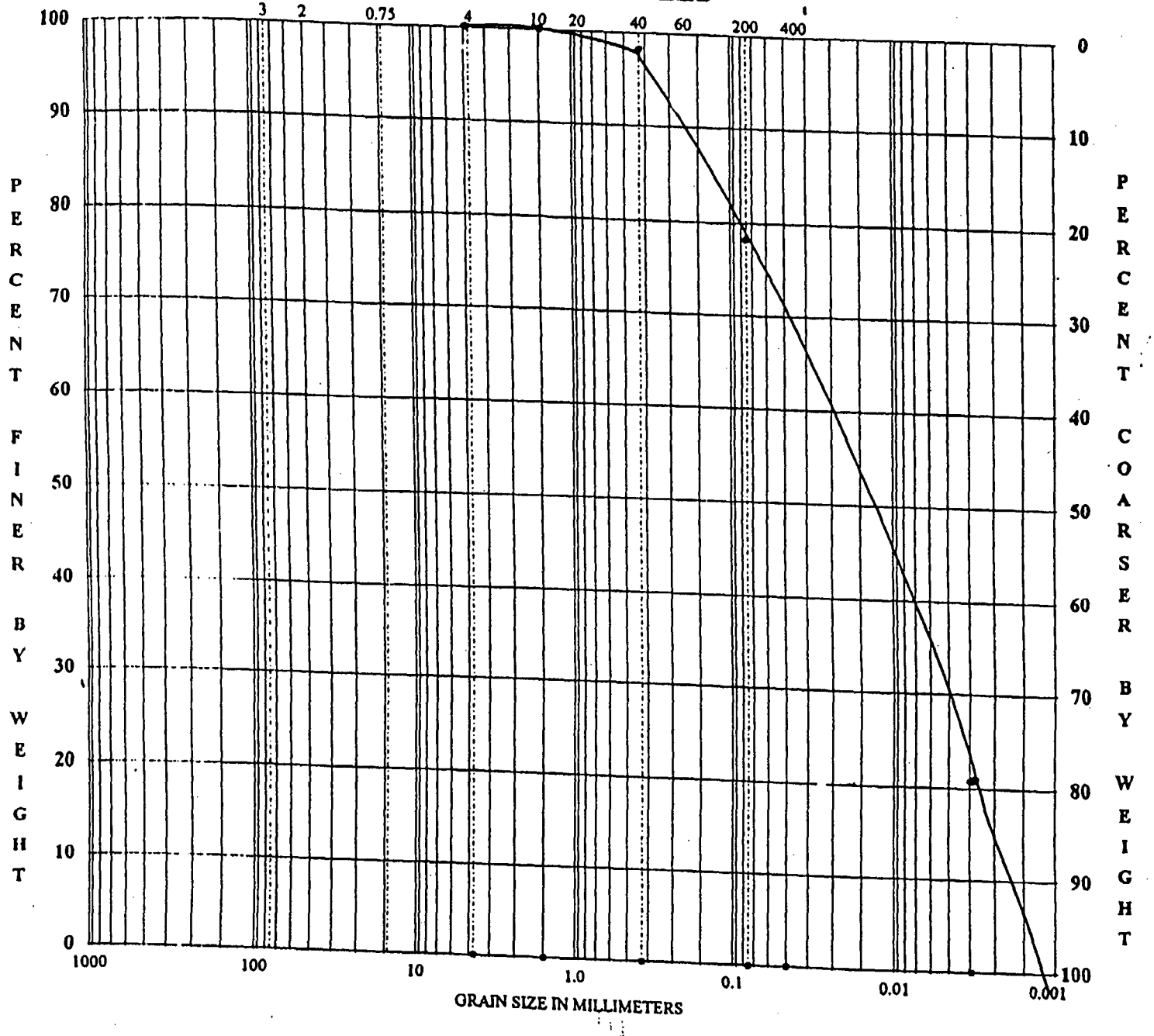
Client Name : B & V

Sample ID : 2379013

Client ID : SFMICO

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

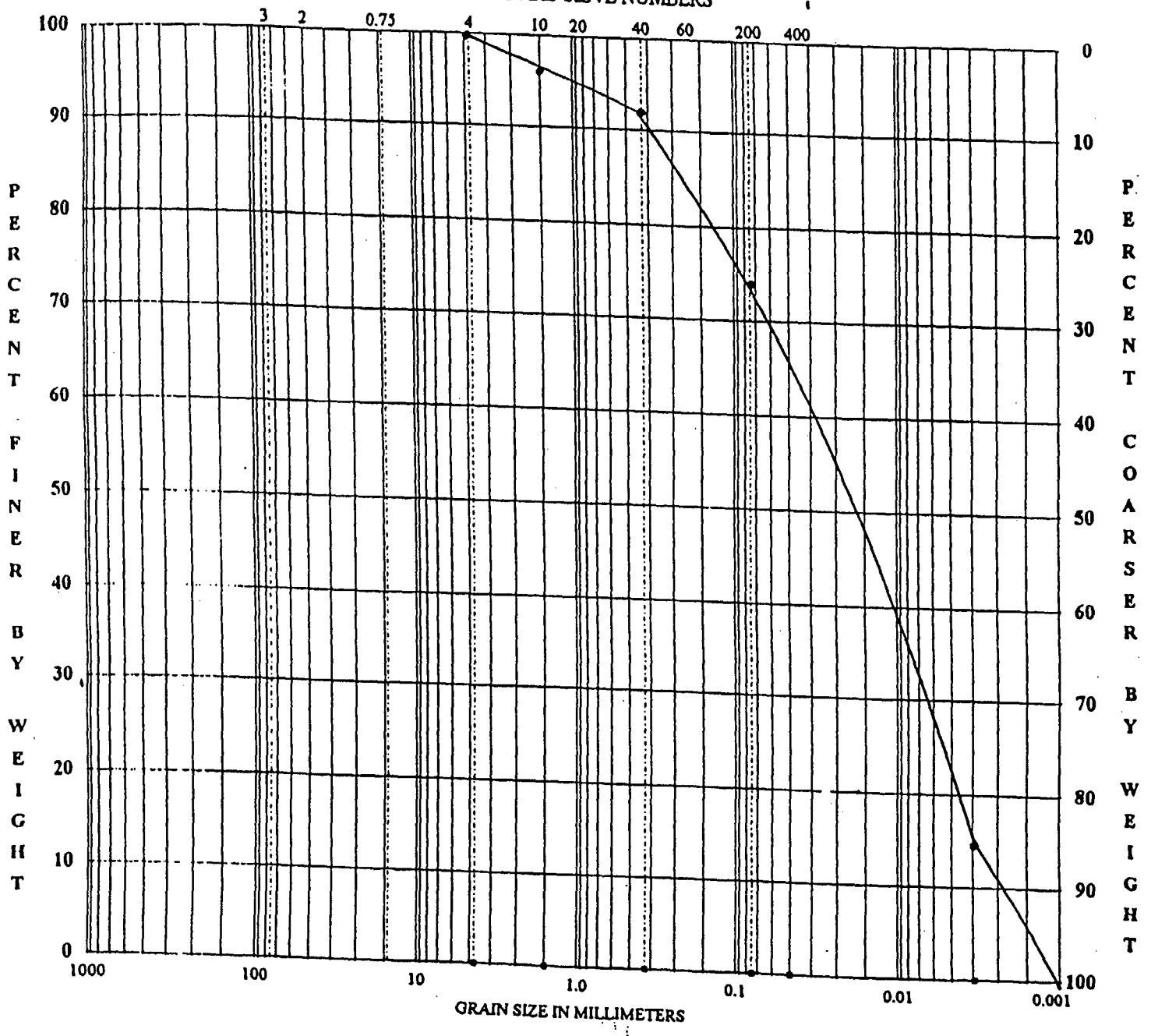
Client Name : B.C

Sample ID : 2379014

Client ID : SFM1C1

Date of Analysis :

RESULTS OF GRAIN SIZE TEST ING



GRAIN SIZE ANALYSIS BY METHOD D422-63

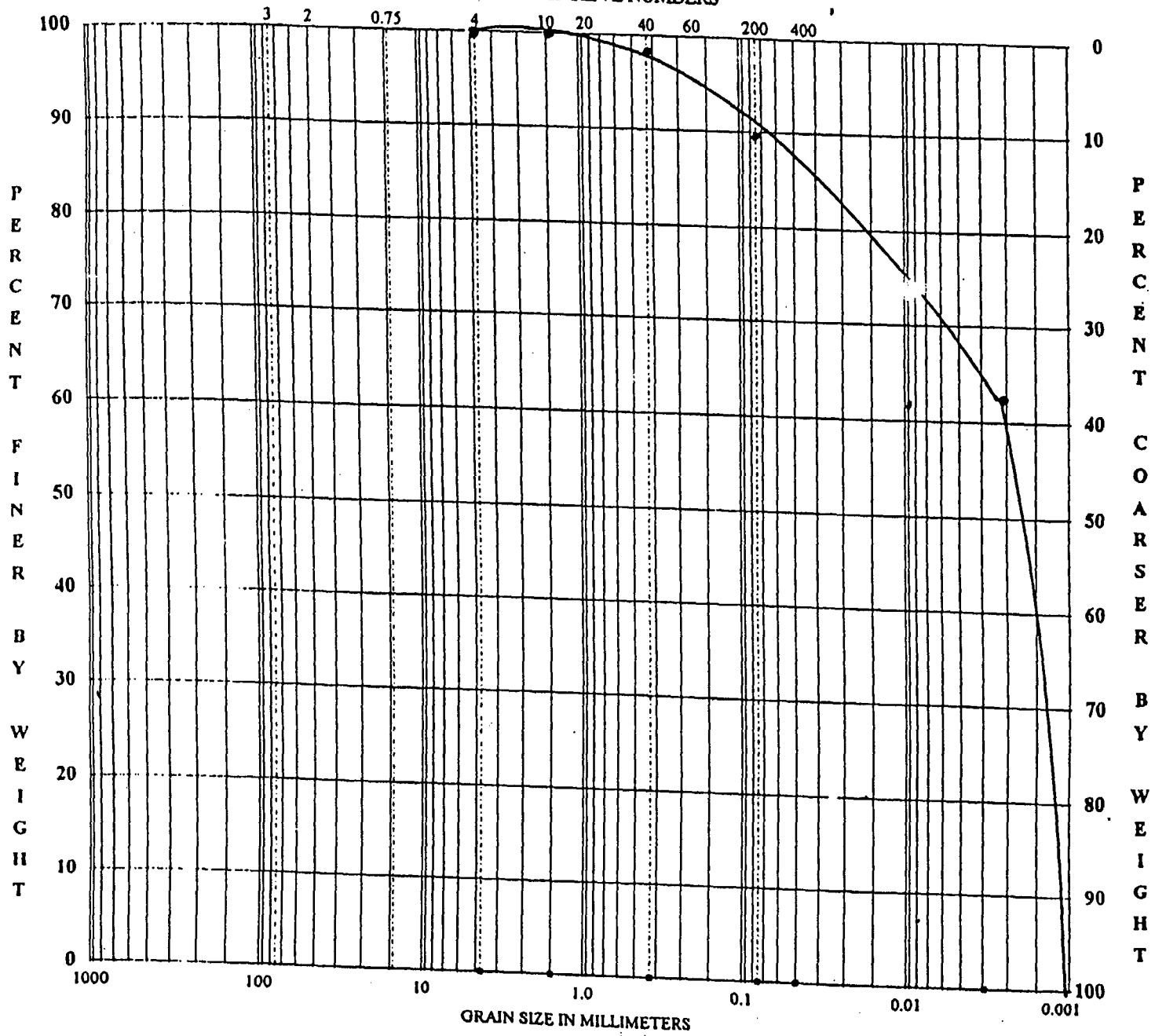
Client Name : BLV

Sample ID : 2379015

Client ID : SFMIC3

Date of Analysis :

RESULTS OF GRAIN SIZE TEST



GRAIN SIZE ANALYSIS BY METHOD D422-63

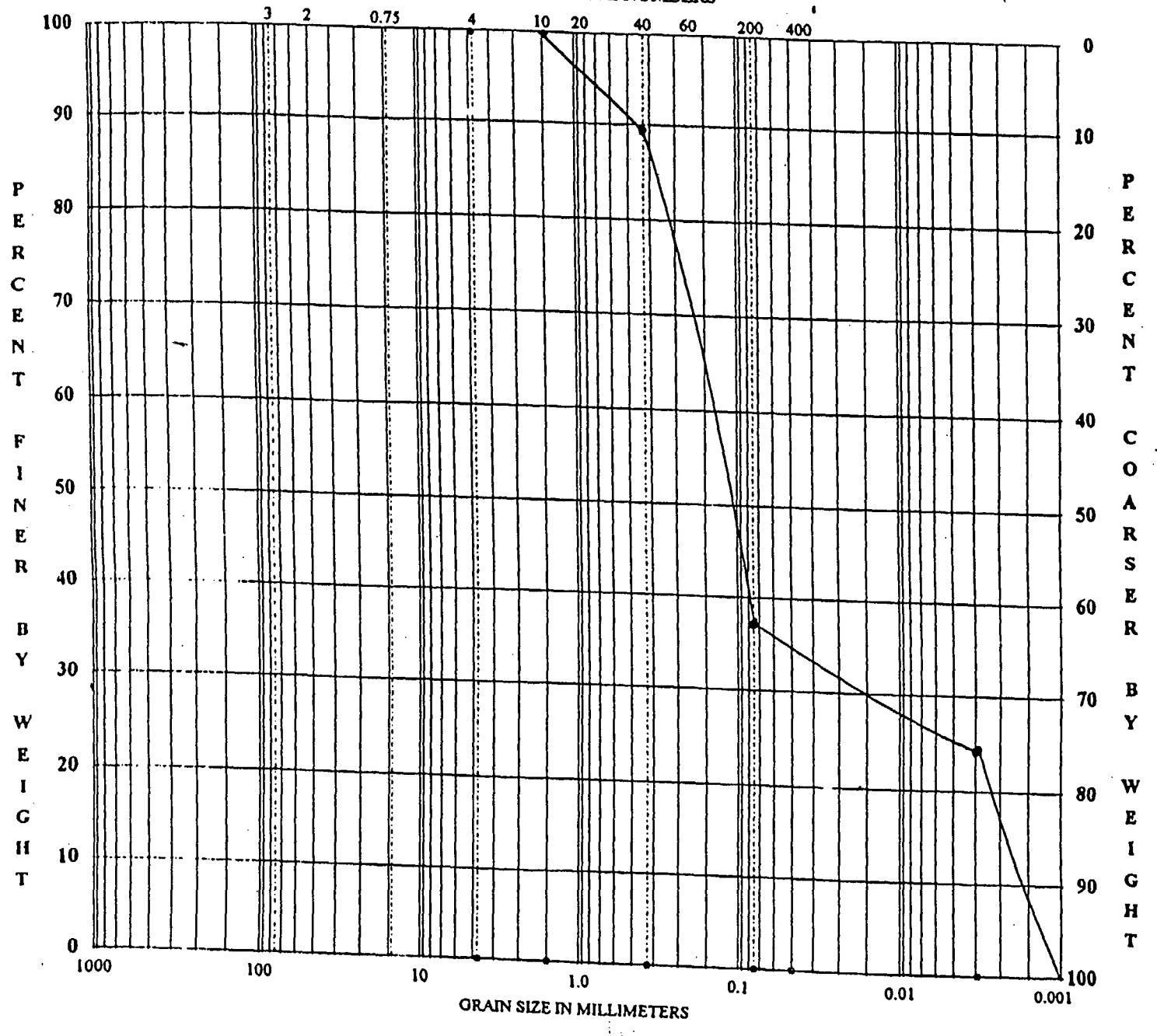
Client Name : BRC

Sample ID : 2379016

Client ID : SFM1C6

Date of Analysis :

RESULTS OF GRAIN SIZE TESTING



GRAIN SIZE ANALYSIS BY METHOD D422-63

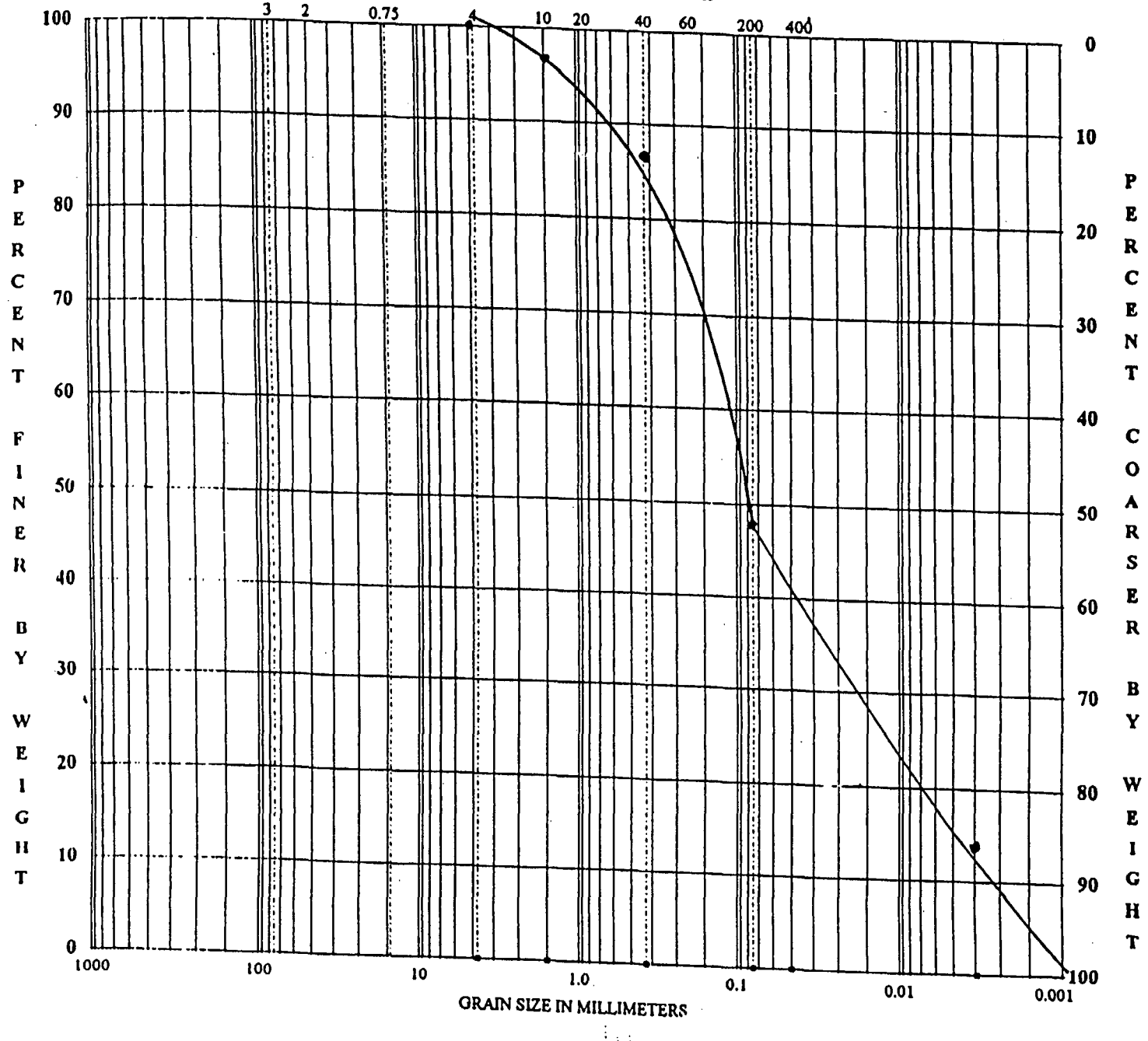
Client Name : B.V

Sample ID : 2379017

Client ID : SFM2C0

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

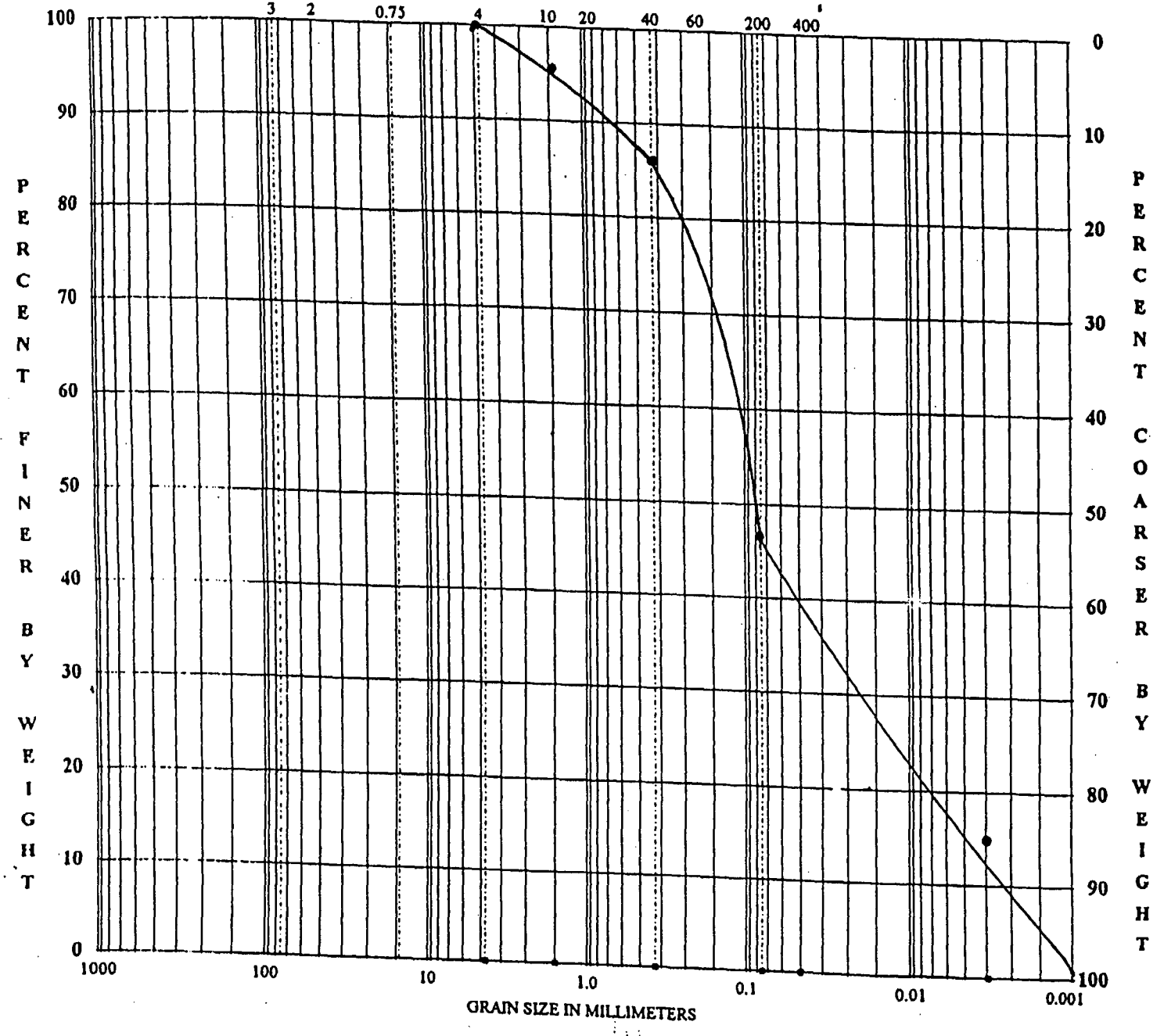
Client Name : B.V

Sample ID : 2379018

Client ID : SFH2CODUP

Date of Analysis :

RESULTS OF GRAIN SIZE TES 3



GRAIN SIZE ANALYSIS BY METHOD D422-63

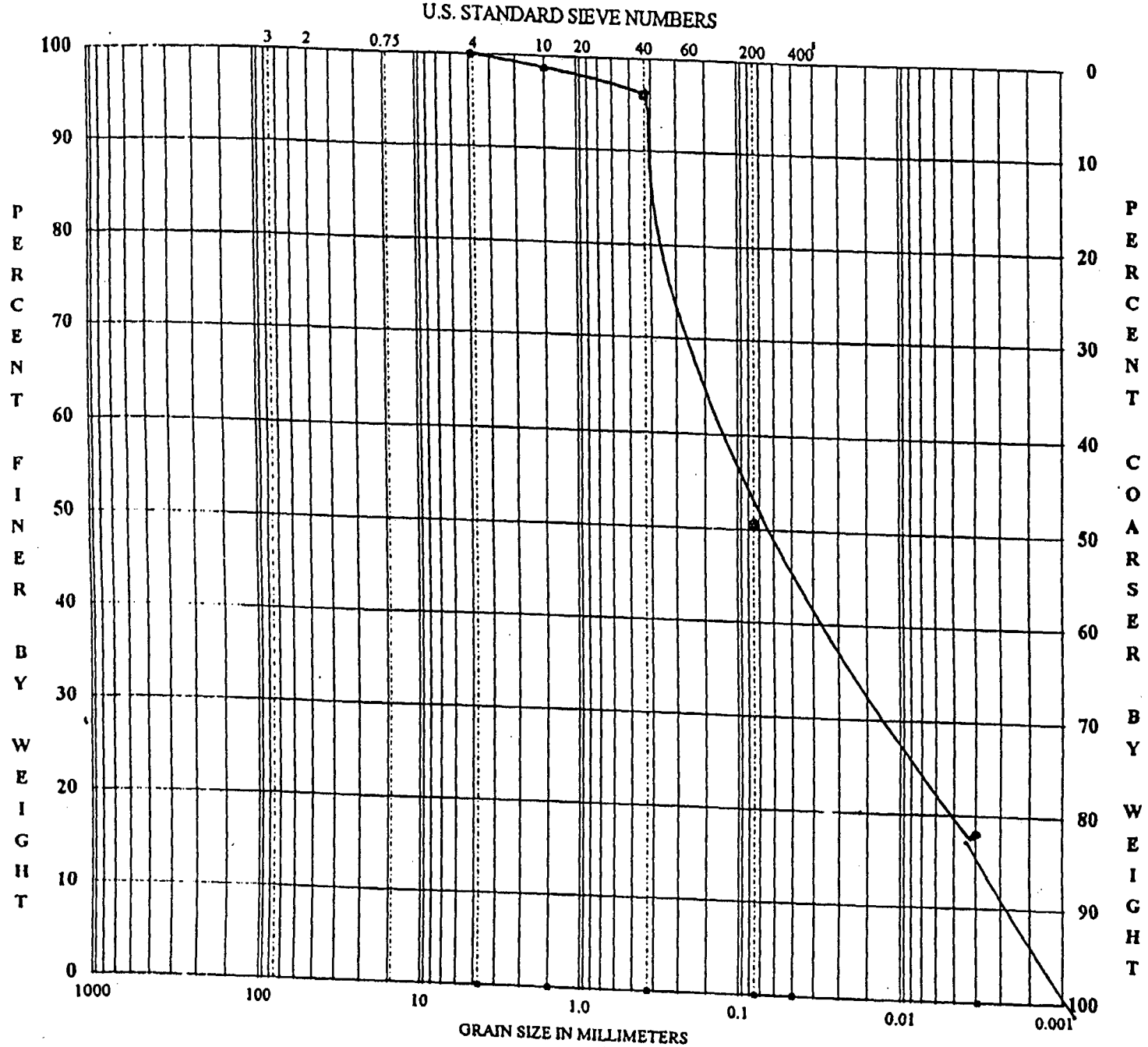
Client Name : B&V

Sample ID : 23790 19

Client ID : SFM2CO TRIP

Date of Analysis :

RESULTS OF GRAIN SIZE TEST G



GRAIN SIZE ANALYSIS BY METHOD D422-63

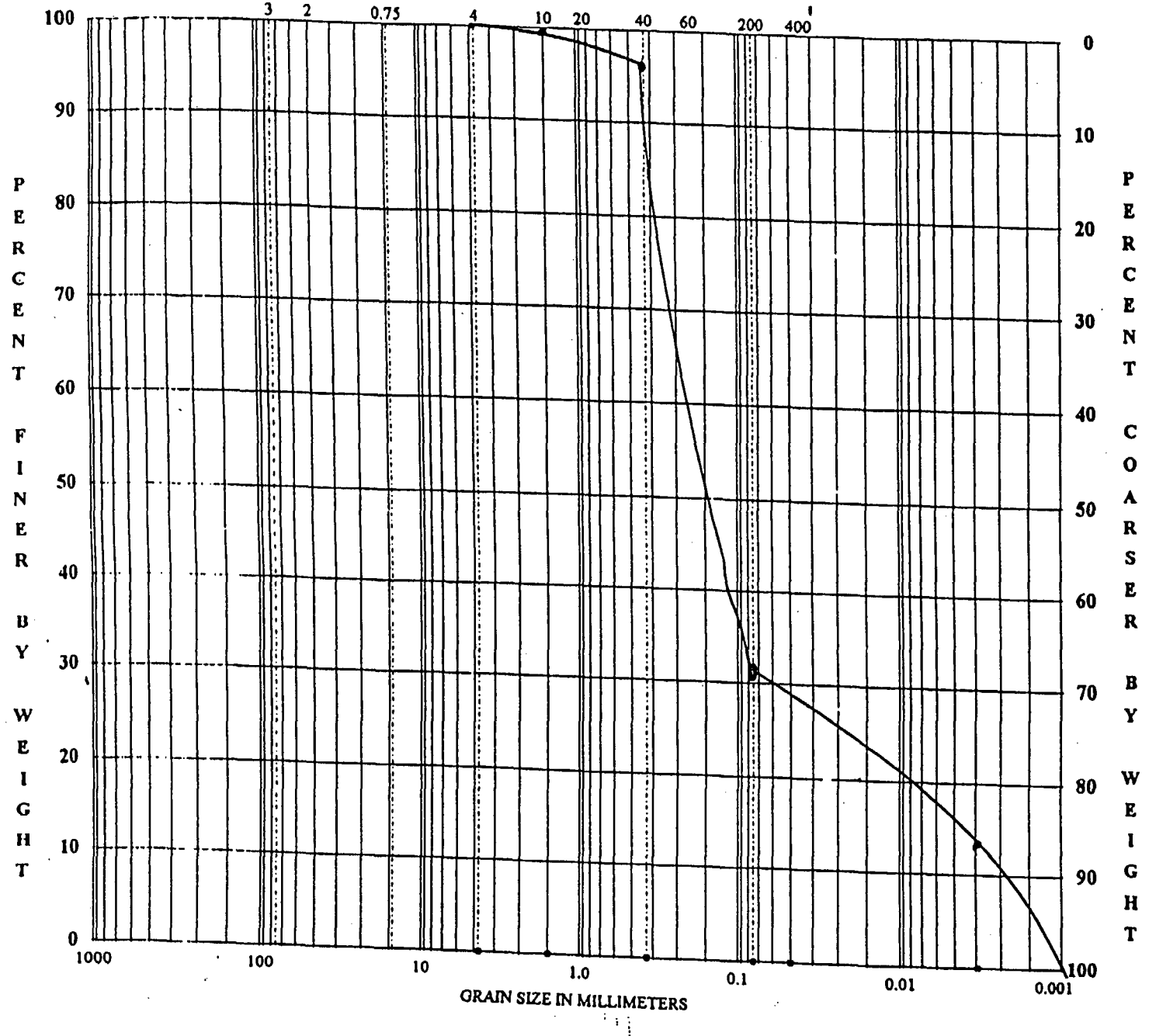
Client Name : B-V

Sample ID : 2370020

Client ID : SFM2C5

Date of Analysis :

RESULTS OF GRAIN SIZE TES. G



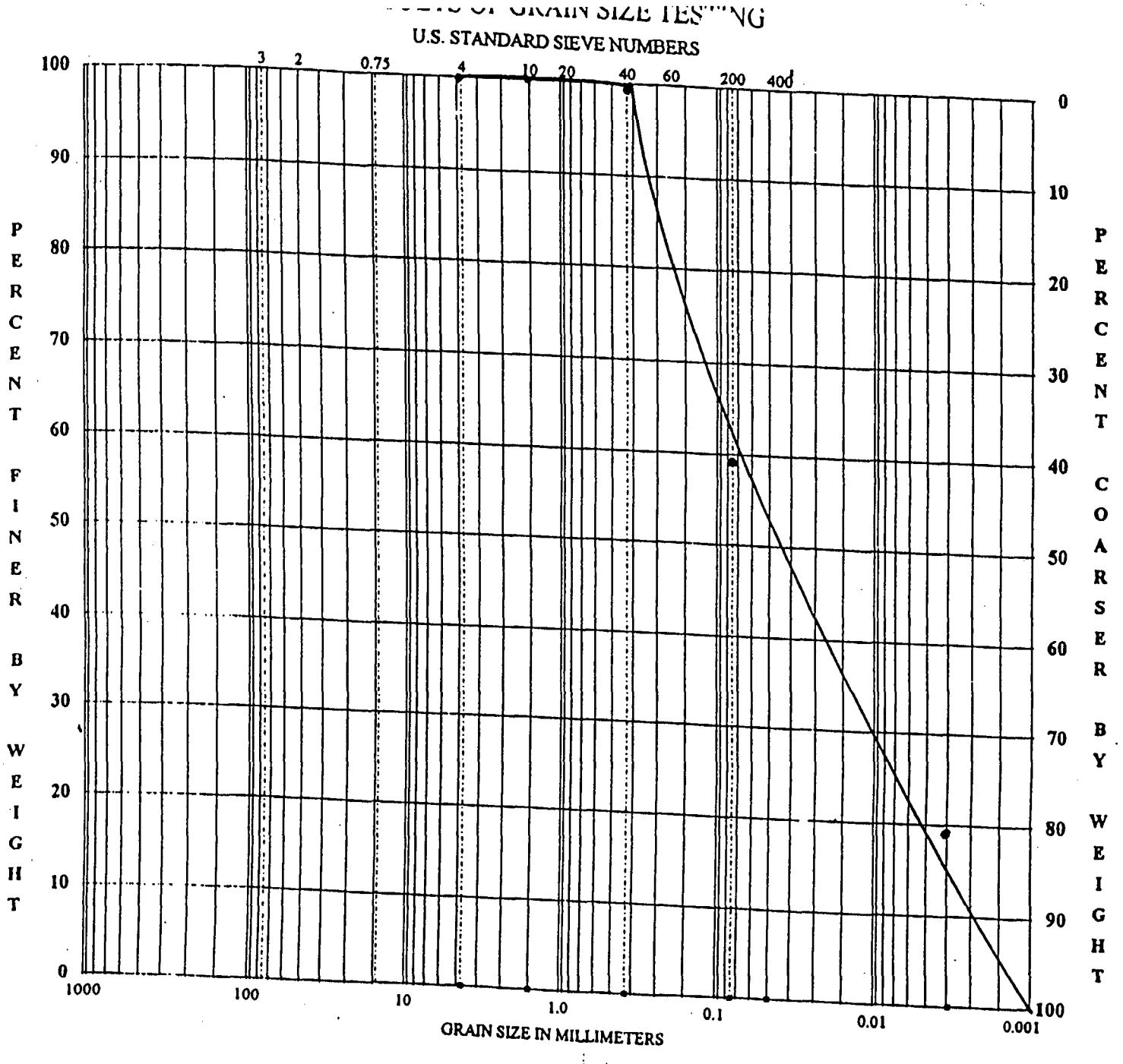
GRAIN SIZE ANALYSIS BY METHOD D422-63

Client Name : B.V

Sample ID : 237902 1

Client ID : BST2CO

Date of Analysis :



GRAIN SIZE ANALYSIS BY METHOD D422-63

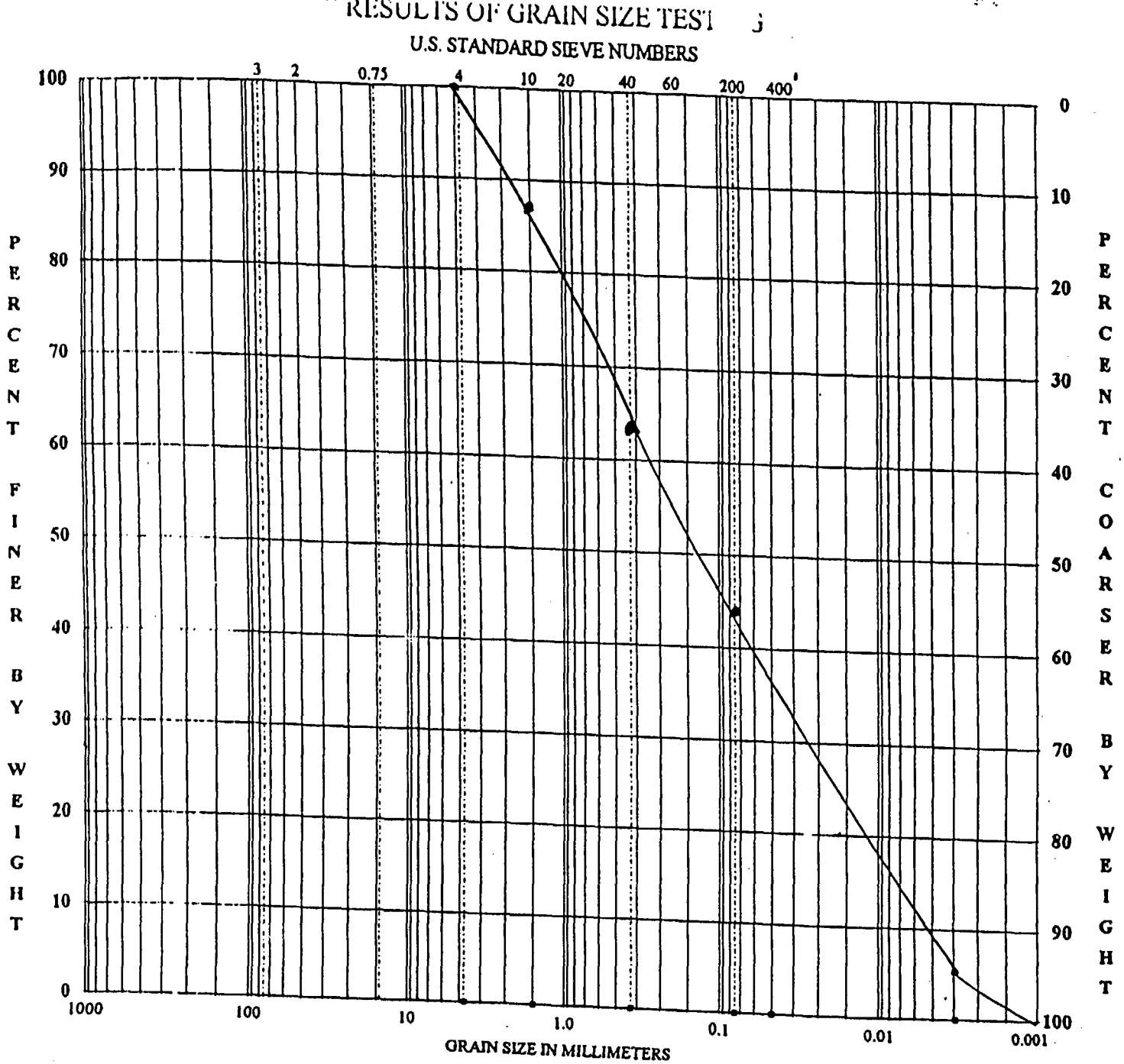
Client Name : B . V

Sample ID : 2379022

Client ID : BST2C1

Date of Analysis :

RESULTS OF GRAIN SIZE TEST



GRAIN SIZE ANALYSIS BY METHOD D422-63

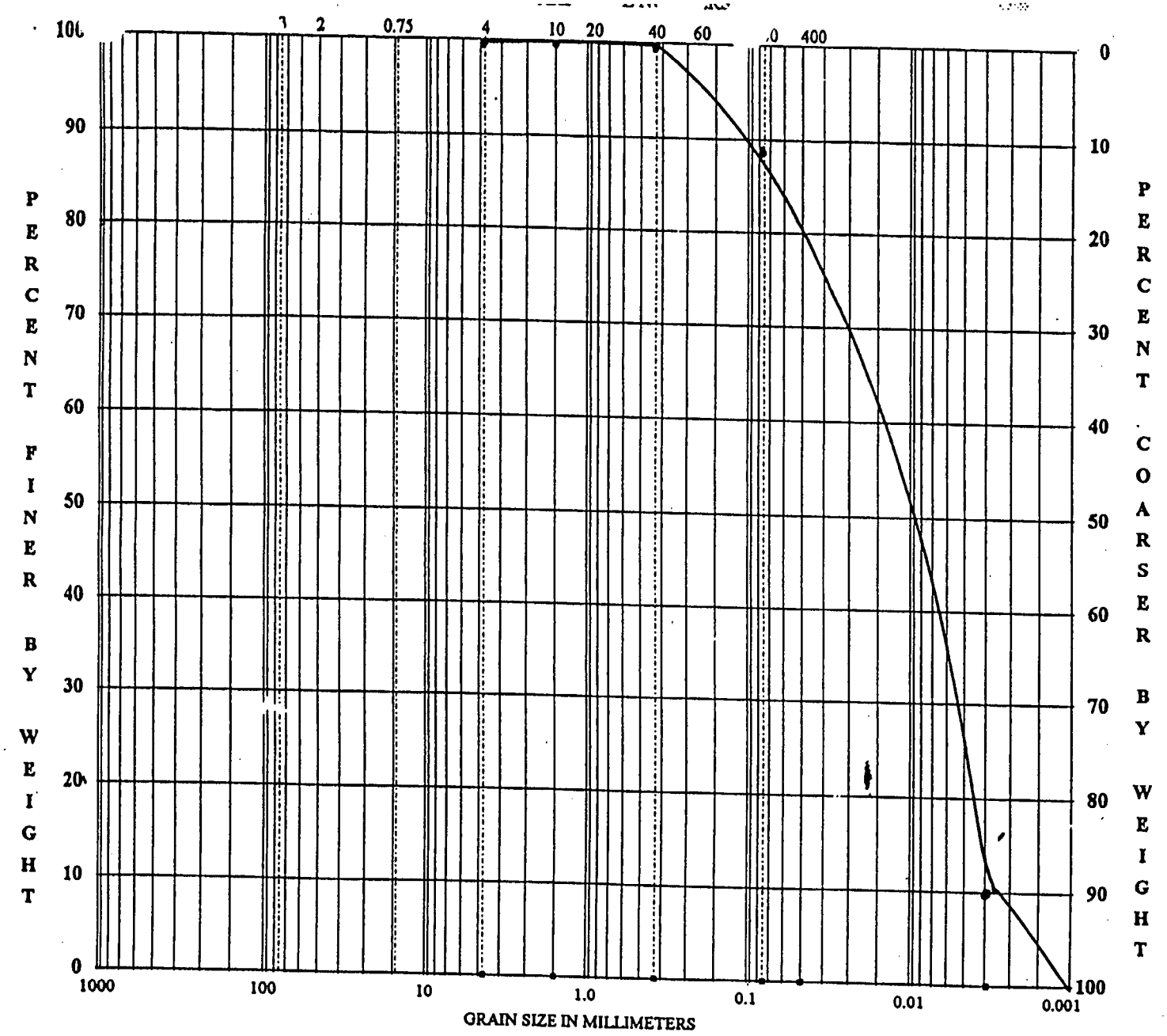
Client Name : B. V

Sample ID : 2379023

Client ID : SMHICO

Date of Analysis :

Appendix E
Bulk Sediment Grain Size Curves



GRAIN SIZE ANALYSIS BY METHOD D422-63

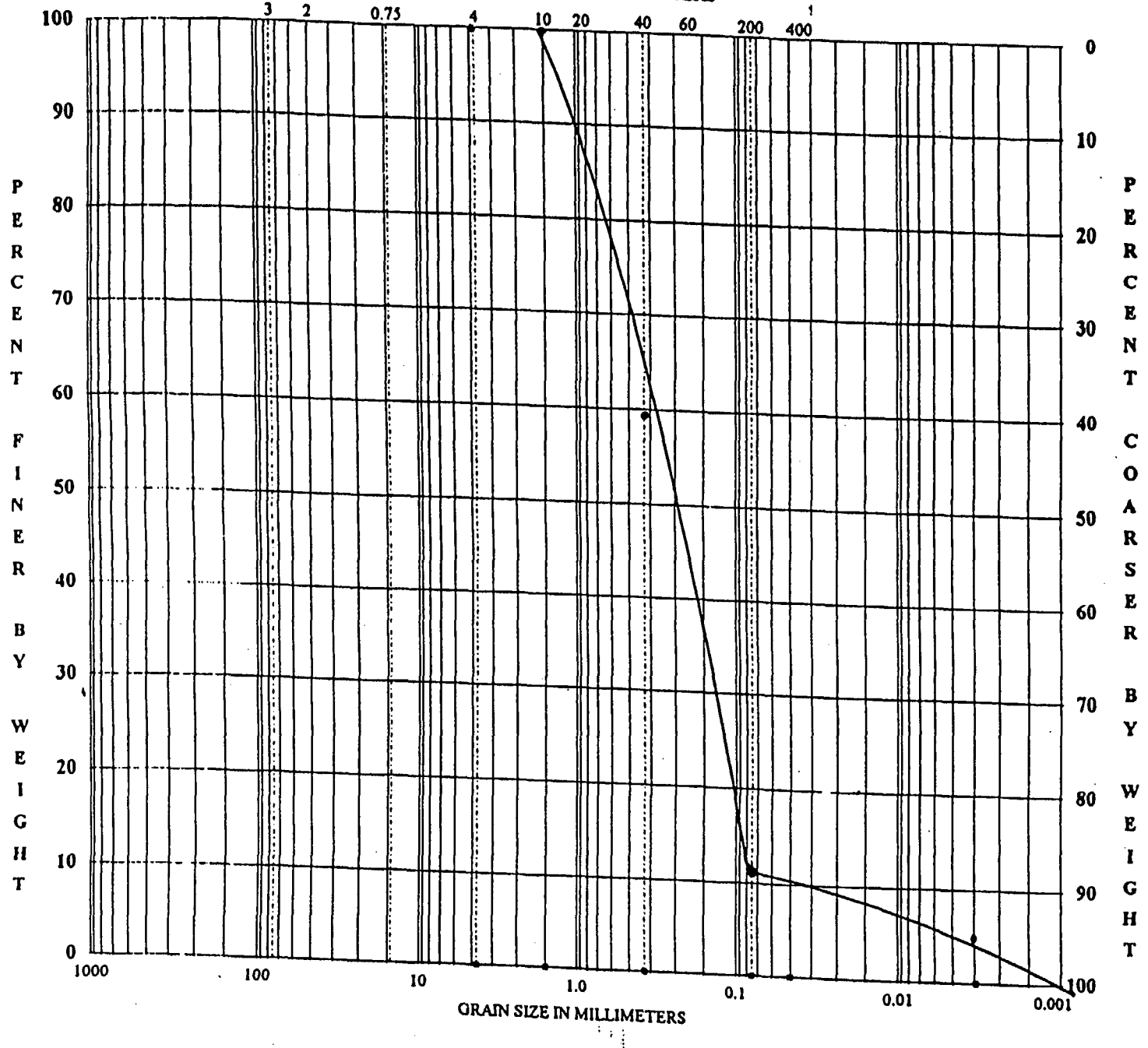
Client Name : B & V

Sample ID : CRC2CO

Client ID : 237620.1.

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

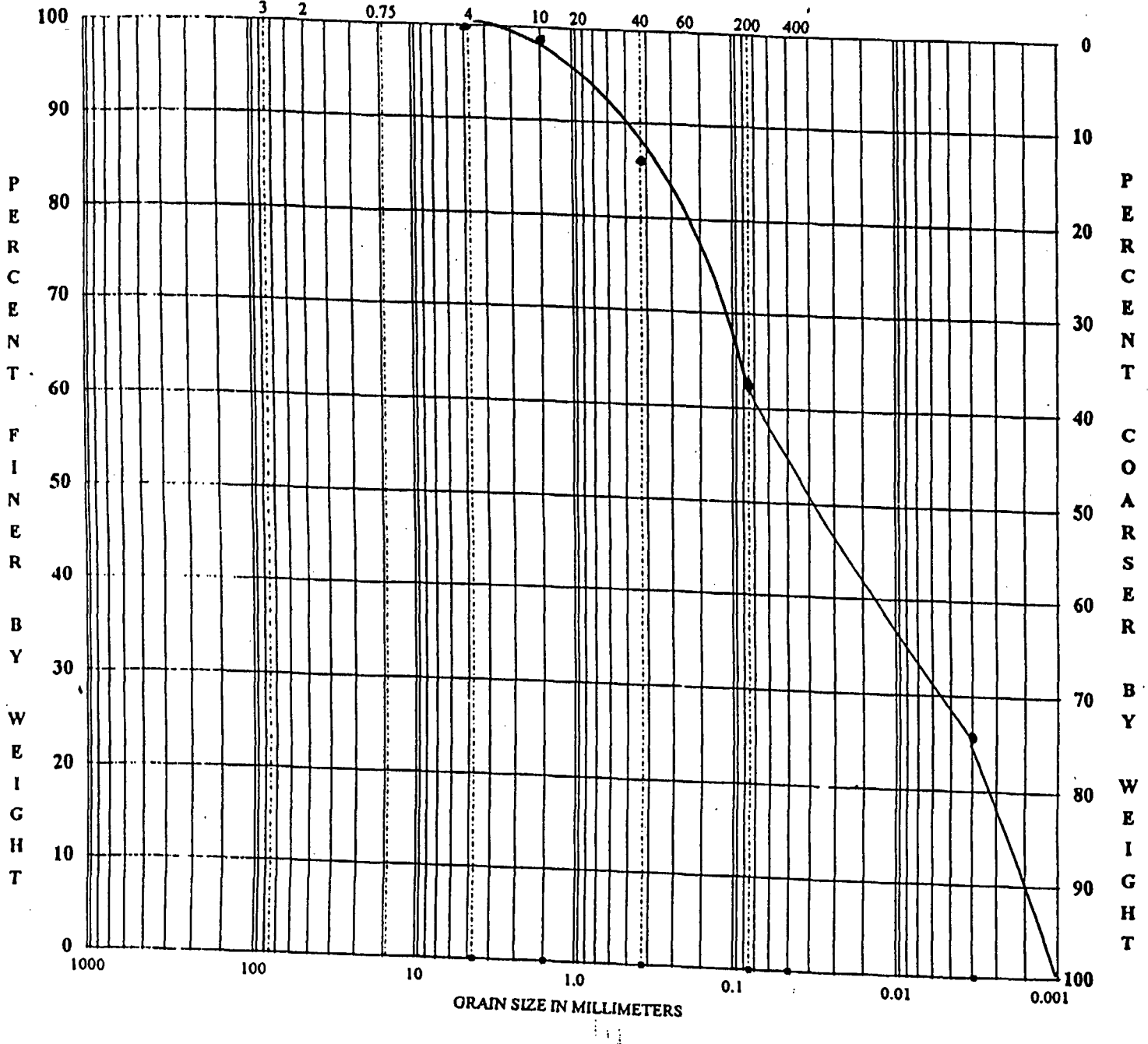
Client Name : B & V

Sample ID : CRC 2C4

Client ID : 2376202

Date of Analysis :

RESULTS OF GRAIN SIZE TES .G



GRAIN SIZE ANALYSIS BY METHOD D422-63

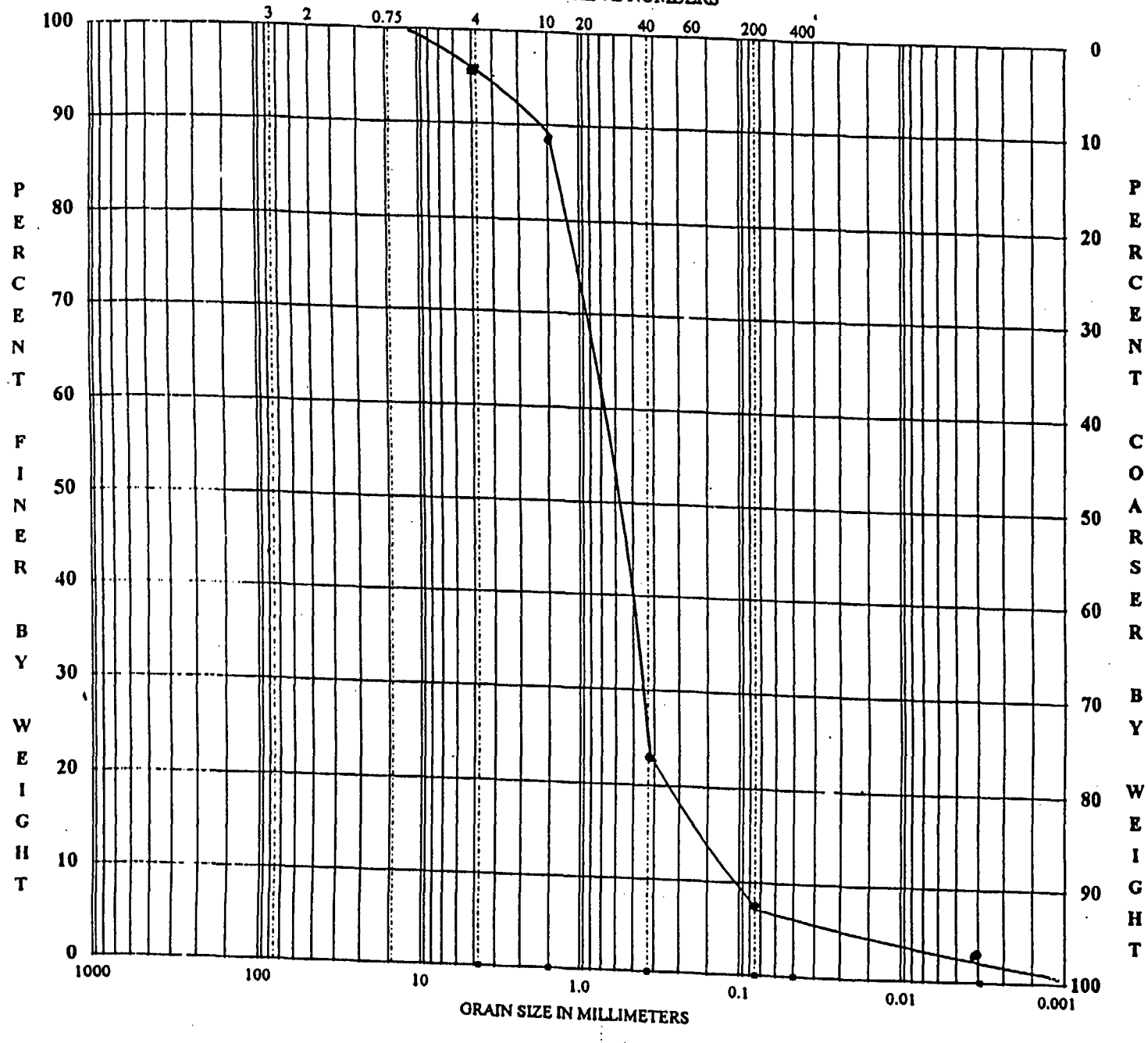
Client Name : B.V

Sample ID : 2376203

Client ID CRC2C7

Date of Analysis :

RESULTS OF GRAIN SIZE TES G



GRAIN SIZE ANALYSIS BY METHOD D422-63

Client Name : B&V

Sample ID : 2376205

Client ID : B5TVC3

Date of Analysis :

Appendix F
Bulk Sediment and Elutriate Initial Screening Levels

TABLE 1

BULK ANALYSIS

PARAMETER	CRITERIA * (mg/kg)
Acenaphthene	.016
Acenaphthylene	.044
Acetone	100
Acrolein	
Acrylonitrile	1
Aldrin	0.040
Aluminum	
Anthracene	.085
Antimony	14
Arsenic	8
Barium	700
Benzene	1
Benzidine	
3,4-Benzofluoranthene (Benzo(b)fluoranthene)	0.9
Benzo(a)anthracene	0.16
Benzo(a)pyrene(BaP)	0.23
Benzo (ghi)perylene	
Benzo(k)fluoranthene	0.9
Benzyl Alcohol	50
Beryllium	1
Bis(2-chloroethyl)ether	0.66
Bis(2-chloroisopropyl) ether	10
Bis (2-chlorethoxy) methane	
Bis(2-ethylhexyl)phthalate	49
Boron	
Bromodichloromethane (Dichlorobromomethane)	1

Bromoform	1
Bromomethane	1
4-Bromophenyl-phenylether	
2-Butanone (MEK)	50
Butylbenzyl phthalate	100
Cadmium	**1**
Carbon tetrachloride	1
2-Chlorethylvinylether	
Chloride	
4-Chloroaniline	230
Chlorobenzene	1
Chlorodane	
Chloroethane	
Chloroform	1
4-Chloro-3-methyl phenol (p-Chloro-m-cresol)	100
Chloromethane	10
2-Chloronaphthalene	
2-Chlorophenol	10
4-Chlorophenyl-phenylether	
Chloropyrifos	
Chromium	**33**
Chrysene	**0.22**
Cobalt	
Copper	**28**
P-Cresol	
Cyanide	1100
4,4'-DDD(p,p'-TDE)	3
4,4'-DDE	2
4,4'DDT	2
Dibenz(a,h)anthracene	**.031**

Dibromochloromethane (Chlordibromomethane)	1
1,1-Dichloroethylene	
1,2-Dichloropropane	
1.3-Dichloropropylene	
Di-n-butyl phthalate	100
Di-n-octyl phthalate	100
1,2-Dichlorobenzene	50
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
3,3'-Dichlorobenzidine	2
1,1-Dichloroethane	10
1,2-Dichloroethane	1
1,1-Dichloroethene	8
1,2-Dichloroethene (trans)	50
1,2-Dichloroethene (cis)	1
1,2-trans Dichloroethylene	
2,4-Dichloroprophenol	10
1,2-Dichloropropane	10
1,3-Dichloropropene (cis and trans)	1
Dieldrin	**0.011**
Diethyl phthalate	50
2,4-Dimethyl Phenol	
2,4-Dimethyl phthalate	10
Dimethyl phthalate	50
4,6-Dinitro-o-cresol	
2,4-Dinitrophenol	10
4,6-Dinitrophenol	
Dinitrotoluene (2,4-/2.6-mixture)	1
4,6-Dintro-2-methylphenol	
1,2-Diphenylnhydrazine	

Endosulfan	50
Endrin	.042
Endrin Aldehyde	
Ethylbenzene	100
Fluoranthene	.380
Fluorene	.018
Formaldehyde	
Heptachlor	0.15
Heptachlor Epoxide	
Hexachlorobenzene	0.66
Hexachlorobutadiene	1
Hexachlorocyclohexane Alpha Beta Delta	
Hexachlorocyclopentadiene	100
Hexachloroethane	6
2-Hexanone	
Indeno(1,2,3-cd)pyrene	0.9
Isophorone	50
Lead	21
Lindane	0.52
Methyl Bromide	
Methyl Chloride	
2-Methylphenol	2800
4-Methylphenol	2800
Methoxychlor	50
Mercury	0.1
Methyl Ethyl Ketone	
Methyl Isobutyl Ketone	
4-Methyl-2-pentanone(MIBK)	50
Methylene chloride	1
Mirex	

Naphthalene	100
Nickel	20.9
Nitrobenzene	10
2-Nitrophenol	
4-Nitrophenol	
N-Nitrosodimethylamine	
N-Nitrosodiphenylamine	100
N-Nitrosodi-n-propylamine	0.66
Parathion	
PCBs(Polychorinated biphenyls)	0.029
Pentachlorophenol	6
Phenanthrene	
Phenol	50
1-Propanal	
2-Propanal	
Pyrene	0.29
Selenium	63
Silver	0.5
Styrene	23
Tetrachlorethene	
1,1,1,2-Tetrachloroethane	1
1,1,2,2-Tetrachloroethane	1
Tetrachloroethylene	1
Thallium	2
Toluene	500
Total Residual Chlorine	
Toxaphene	0.10
1,2,4-Trichlorobenzene	68
1,1,1-Trichloroethane	50
1,1,2-Trichloroethane	1
Trichloroethene (TCE)	1

Trichloroethylene	
2,4,5-Trichlorophenol	50
2,4,6-Trichlorophenol	10
Vanadium	370
Vinyl chloride	2
Xylenes (Total)	10
Zinc	68

* NOTES:

1. Bold values represent sediment criteria that exists in the literature. All other values are the lowest of the NJDEPE criteria shown in Table 2.

2. Detection levels for each of the parameters are to be less than the criteria levels.

(Last Revised — 2/3/84)

This listing represents the combination of Tables 3-1 and 7-1 from the Department of Environmental Protection and Energy's February 3, 1992 proposed rule entitled Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26D, with noted corrections based upon errors identified by the Department during or subsequent to the comment period as well as new toxicological information c ıed since the rule proposal. Please refer to the respective footnotes for more detail. Notwithstanding, where the following criteria are based on human health impacts, the Department shall still consider environmental impacts when establishing site specific cleanup criteria. This along with other site specific factors including background conditions may result in site specific cleanup criteria which differ from the criteria listed below. Therefore, this list shall not be assumed to represent approval by the Department of any remedial action or to represent the Department's opinion that a site requires remediation.

Note: Material bracketed [thus] is deleted and material underlined thus is added.

Contaminant	CASRN	Residential Direct Contact Soil Cleanup Criteria(a)(b)	Non Residential Direct Contact Soil Cleanup Criteria(a)(b)	Impact to Ground water Soil Cleanup Criteria(b)
Acenaphthene	83-32-9	3400	10000 (c)	100
Acetone	67-64-1	1000 (d)	1000 (d)	[50] 100 (i)
Acrylonitrile	107-13-1	1	5	[100] 1 (i)
Aldrin	309-00-2	0.040	0.17	50
Anthracene	120-12-7	10000 (c)	10000 (c)	[500] 100 (i)
Antimony	7440-36-0	14	340	(h)
Arsenic	7440-38-2	[2 (f)] 20 (e)	[2 (f)] 20 (e)	(h)
Barium	7440-39-3	700	47000 (n)	(h)
Benzene	71-43-2	3	13	1
3,4-Benzofluoranthene (Benzo(b)fluoranthene)	205-99-2	0.9	4	[500] 50 (i)
Benzo(a)anthracene	56-55-3	0.9	4	500
Benzo(a)pyrene (BaP)	50-32-8	0.66 (f)	0.66 (f)	100
ːo(k)fluoranthene	207-08-9	0.9	4	500
Benzyl Alcohol	100-51-6	10000 (c)	10000 (c)	50
Beryllium	7440-41-7	1 (f)	1 (f)	(h)
Bis(2-chloroethyl) ether	111-44-4	0.66 (f)	3	[1] 10 (j)
Bis(2-chloroisopropyl) ether	39638-32-9	2300	10000 (c)	10
Bis(2-ethylhexyl) phthalate	117-81-7	49	210	100
Bromodichloromethane (Dichlorobromomethane)	75-27-4	[5] 11 (g)	[22] 46 (g)	1
Bromoform	75-25-2	86	370	1
Bromomethane	74-83-9	79	1000 (d)	1
2-Butanone (MEK)	78-93-3	1000 (d)	1000 (d)	50
Butylbenzyl phthalate	85-68-7	1100	10000 (c)	100
Cadmium	7440-43-9	1	100	(h)
Carbon tetrachloride	56-23-5	2 (k)	4 (k)	1
4-Chloroaniline	106-47-8	230	4200	(r)
Chlorobenzene	108-90-7	37	680	1
Chloroform	67-66-3	19 (k)	28 (k)	1
4-Chloro-3-methyl phenol (p-Chloro-m-cresol)	59-50-7	10000 (c)	10000 (c)	100
Chloromethane	74-87-3	520	1000 (d)	10
2-Chlorophenol	95-57-8	280	5200	[50] 10 (j)
Chrysene	218-01-9	9	40	500
Copper	7440-50-8	600 (m)	600 (m)	(h)
Cyanide	57-12-5	1100	21000 (o)	(h)
4,4'-DDD (p,p'-TDE)	72-54-8	3	12	[100] 50 (i)
4,4'-DDE	72-55-9	2	9	[100] 50 (i)

Contaminant	CASRN	Residential Direct Contact Soil Cleanup Criteria(a)(b)	Non-Residential Direct Contact Soil Cleanup Criteria(a)(b)	Impact to Ground water Soil Cleanup Criteria(b)
4,4'-DDT	50-29-3	2	9	[100] 500 (i)
ibenz(a,h)anthracene	53-70-3	0.66 (f)	0.66 (f)	[500] 100 (j)
ibromochloromethane (Chlorodibromomethane)	124-48-1	110	1000 (d)	1
Di-n-butyl phthalate	84-74-2	5700	10000 (c)	100
Di-n-octyl phthalate	117-84-0	1100	10000 (c)	100
1,2-Dichlorobenzene	95-50-1	5100	10000 (c)	50
1,3-Dichlorobenzene	541-73-1	5100	10000 (c)	100
1,4-Dichlorobenzene	106-46-7	570	10000 (c)	100
3,3'-Dichlorobenzidine	91-94-1	2	6	100
1,1-Dichloroethane	75-34-3	570	1000 (d)	[1] 10 (i)
1,2-Dichloroethane	107-06-2	6	24	1
1,1-Dichloroethene	75-35-4	8	150	10
1,2-Dichloroethene (trans)	156-60-5	1000 (d)	1000 (d)	50
1,2-Dichloroethene (cis)	156-59-2	79	1000 (d)	[50] 1 (i)
2,4-Dichlorophenol	120-83-2	170	3100	10
1,2-Dichloropropane	78-87-5	10	43	(r)
1,3-Dichloropropene (cis and trans)	542-75-6	4	5 (k)	1
Dieldrin	60-57-1	0.042	0.18	50
Diethyl phthalate	84-66-2	10000 (c)	10000 (c)	50
2,4-Dimethyl phenol	105-67-9	1100	10000 (c)	10
Dimethyl phthalate	131-11-3	10000 (c)	10000 (c)	50
2,4-Dinitrophenol	51-28-5	110	2100	10
Dinitrotoluene (2,4-/2,6- mixture)	25321-14-6	1 (l)	4 (l)	10 (l)
Endosulfan	115-29-7	[3] 340 (g)	[52] 6200 (g)	50
Endrin	72-20-8	17	310	50
Ethylbenzene	100-41-4	1000 (d)	1000 (d)	100
luoranthene	206-44-0	2300	10000 (c)	[500] 100 (i)
luorene	86-73-7	2300	10000 (c)	100
Heptachlor	76-44-8	0.15	0.65	[500] 50 (j)
Hexachlorobenzene	118-74-1	0.66 (f)	2	[50] 100 (i)
Hexachlorobutadiene	87-68-3	[11] 1 (g)	[210] 21 (g)	[50] 100 (g)
Hexachlorocyclopentadiene	77-47-4	400	7300	100
Hexachloroethane	67-72-1	6	100	100
Indeno(1,2,3-cd)pyrene	193-39-5	0.9	4	500
Isophorone	78-59-1	1100	10000 (c)	[10] 50 (j)
Lead	7439-92-1	100 (p)	600 (q)	(h)
Lindane	58-89-9	0.52	2.2	[1] 50 (j)
2-Methylphenol	95-48-7	2800	10000 (c)	(r)
4-Methylphenol	106-44-5	2800	10000 (c)	(r)
Methoxychlor	72-43-5	280	5200	[500] 50 (i)
Mercury	7439-97-6	14	270	(h)
4-Methyl-2-pentanone(MIBK)	108-10-1	1000 (d)	1000 (d)	50
Methylene chloride	75-09-2	49	210	[10] 1 (j)
Naphthalene	91-20-3	230	4200	100
Nickel	7440-02-0	250	2400 (k) (n)	(h)
Nitrobenzene	98-95-3	28 520	[50]	10 (i)
N-Nitrosodiphenylamine	86-30-6	140	600	100
N-Nitrosodi-n-propylamine	621-64-7	0.66 (f)	0.66 (f)	[1] 10 (j)
PCBs (Polychlorinated biphenyls)	1336-36-3	0.49	2	[100] 50 (i)
Pentachlorophenol	87-86-5	6	24	100
Phenol	103-95-2	10000 (c)	10000 (c)	50

Contaminant	CASRN	Residential Direct Contact Soil Cleanup Criteria(a)(b)	Residential Direct Contact Soil Cleanup Criteria(a)(b)	Impact to Ground water Soil Cleanup Criteria(b)
Pyrene	129-00-0	1700	10000 (c)	[500] 100 (j)
Selenium	7782-49-2	63	3100 (n)	(h)
Silver	7440-22-4	110	4100 (n)	(h)
Styrene	100-42-5	23	97	100
1,1,1,2-Tetrachloroethane	630-20-6	170	310	1
1,1,2,2-Tetrachloroethane	79-34-5	34	70 (k)	1
Tetrachloroethylene	127-18-4	4 (k)	6 (k)	1
Thallium	7440-28-0	2 (f)	2 (f)	(h)
Toluene	108-88-3	1000 (d)	1000 (d)	500
Toxaphene	8001-35-2	0.10 (k)	0.2 (k)	[100] 50 (i)
1,2,4-Trichlorobenzene	120-82-1	68	1200	100
1,1,1-Trichloroethane	71-53-6	210	1000 (d)	50
1,1,2-Trichloroethane	79-00-5	22	420	1
Trichloroethene (TCE)	79-01-6	23	54 (k)	1
2,4,5-Trichlorophenol	95-95-4	5600	10000 (c)	50
2,4,6-Trichlorophenol	88-06-2	62	270	[50] 10 (i)
Vanadium	7440-62-2	370	7100 (n)	(h)
Vinyl chloride	75-01-4	2	7	[1] 10 (i)
Xylenes (Total)	1330-29-7	410	1000 (d)	10
Zinc	7440-66-6	1500 (m)	1500 (m)	(h)

Footnotes

(a) criteria are health based using an incidental ingestion exposure pathway except where noted below

(b) criteria are subject to change based on site specific factors (e.g., aquifer classification, soil type, natural background, environmental impacts, etc.)

(c) health based criterion exceeds the 10000 mg/kg maximum for total organic contaminants

(d) health based criterion exceeds the 1000 mg/kg maximum for total volatile organic contaminants

(e) cleanup standard proposal was based on natural background

(f) health based criterion is lower than analytical limits; cleanup criterion based on practical quantitation level

(g) criterion has been recalculated based on new toxicological data

(h) the impact to ground water values for inorganics will be developed based upon site specific chemical and physical parameters

(i) original criterion was incorrectly calculated and has been recalculated

(j) typographical error

(k) criterion based on inhalation exposure pathway which yielded a more stringent criterion than the incidental ingestion exposure pathway

(l) new criterion derived using methodology in the basis and background document

(m) criterion based on ecological (phytotoxicity) effects

(n) level of the human health based criterion is such that evaluation for potential environmental impacts on a site by site basis is recommended

(o) level of the criterion is such that evaluation for potential acute exposure hazard is recommended

(p) criterion based on the goal that children should be exposed to the minimal amount of lead that is practicable and is reflective of natural background as altered by diffuse anthropogenic pollution. Criterion corresponds to both a median value for urban land which has not been impacted by any local point source of lead and a 90th percentile value for similar suburban land

(q) criteria was derived from a model developed by the Society for Environmental Geochemistry and Health (SEGH) and was designed to be protective for adults in the workplace

(r) Insufficient information available to calculate impact to ground water criteria

TABLE 3

Water/Elutriate Analysis

Parameter	Acute Water Quality Criteria * (ug/l)
Acenaphthene	85
Acenaphthylene	
Acetone	446,000
Acrolein	455
Acrylonitrile	645
Aldrin	1.5
Aluminum	750
Anthracene	
Antimony (trivalent)	88
Arsenic (trivalent)	360
Barium	20,500
Benzene	640
Benzidine	295
3,4-Benzofluoranthene (Benzo(b)fluoranthene)	
Benzo(a)anthracene	0.5
Benzo(a)pyrene(BaP)	
Benzo (ghi)perylene	
Benzo(k)fluoranthene	
Benzyl Alcohol	
Beryllium	
Bis(2-chloroethyl)ether	30,000
Bis(2-chloroisopropyl) ether	4,545
Bis (2-chlorethoxy) methane	
Bis(2-ethylhexyl)phthalate	
Boron	8,050
Bromodichloromethane (Dichlorobromomethane)	

Bromoform	1825
Bromomethane	
4-Bromophenyl-phenylether	270
2-Butanone (MEK)	
Butylbenzyl phthalate	140
Cadmium	1.79
Carbon tetrachloride	2780
2-Chlorethylvinylether	17,500
Chloride	86,000
4-Chloroaniline	
Chlorobenzene	1180
Chlorodane	1.2
Chloroethane	
Chloroform	1945
4-Chloro-3-methyl phenol (p-Chloro-m-cresol)	155
Chloromethane	
2-Chloronaphthalene	
2-Chlorophenol	560
4-Chlorophenyl-phenylether	
Chloropyrifos	.083
Chromium III	984.32
Chromium IV	16
Chrysene	
Cobalt	95
Copper	9.22
P-Cresol	795
Cyanide	22
4,4'-DDD(p,p'-TDE)	0.55
4,4'-DDE	0.55
4,4'DDT	0.55
Dibenz(a,h)anthracene	

Dibromochloromethane (Chlordibromomethane)	
1,2-Dichloropropane	
Di-n-butyl phthalate	105
Di-n-octyl phthalate	100
1,2-Dichlorobenzene	820
1,3-Dichlorobenzene	345
1,4-Dichlorobenzene	730
3,3'-Dichlorobenzidine	
1,1-Dichloroethane	
1,2-Dichloroethane	15,440
1,1-Dichloroethene	
1,2-Dichloroethene (trans)	
1,2-Dichloroethene (cis)	
1,1 Dichloroethylene	7,460
1,2-trans Dichloroethylene	6,750
2,4-Dichloroprophenol	1685
1,2-Dichloropropane	10,825
1,3-Dichloropropene (cis and trans)	
1,3-Dichloropropylene	305
Dieldrin	1.25
Diethyl phthalate	4000
2,4-Dimethyl Phenol	660
2,4-Dimethyl phthalate	
Dimethyl phthalate	2475
4,6-Dinitro-o-cresol	80
2,4-Dinitrophenol	655
2,4-Dinitrotoluene	1590
2,6-Dinitrotoluene	990
4,6-Dintro-2-methylphenol	
1,2-Diphenyl-n-hydrazine	15

Endosulfan	.11
Endrin	.09
Endrin Aldehyde	
Ethylbenzene	2,900
Fluoranthene	200
Fluorene	
Formaldehyde	2,180
Heptachlor	.26
Heptachlor Epoxide	0.5
Hexachlorobenzene	
Hexachlorobutadiene	10
Hexachlorocyclohexane Alpha Beta Delta	
Hexachlorocyclopentadiene	5
Hexachloroethane	60
2 Hexanone	21,400
Indeno(1,2,3-cd)pyrene	
Isophorone	10,400
Lead	33.78
Lindane	1.0
Methyl Bromide	550
Methyl Chloride	27,500
Methyl Ethyl Ketone	161,000
Methyl Isobutyl Ketone	26,000
2-Methylphenol	
4-Methylphenol	
Methoxychlor	
Mercury	2.4
4-Methyl-2-pentanone(MIBK)	
Methylene chloride	11,840
Mirex	

Naphthalene	135
Nickel	789.01
Nitrobenzene	4040
2-Nitrophenol	8000
4-Nitrophenol	2335
N-Nitrosodimethylamine	17,100
N-Nitrosodiphenylamine	295
N-Nitrosodi-n-propylamine	
Parathion	.065
PCBs(Polychorinated biphenyls)	2.0
Pentachlorophenol	$e^{(1.005(pH)-4,830)}$
Phenanthrene	5
Phenol	100
1-Propanal	227,750
2-Propanal	443,165
Pyrene	
Selenium	20
Silver	0.92
Styrene	
Tetrachlorethene	
1,1,1,2-Tetrachloroethane	
1,1,2,2-Tetrachloroethane	1040
Tetrachloroethylene	695
Thallium	65
Toluene	1650.
Total Residual Chlorine	19.
Toxaphene	.37
1,2,4-Trichlorobenzene	130
1,1,1-Trichloroethane	3025
1,1,2-Trichloroethane	3390
Trichloroethene (TCE)	

Trichloroethylene	2,250
2,4,5-Trichlorophenol	100
2,4,6-Trichlorophenol	5
Vanadium	515
Vinyl chloride	
Xylenes (Total)	1055
Zinc	65.04

* Detection levels for each of the parameters are to be less than the criteria levels.

* Detection levels for parameters with no criteria shall be determined by EPA Test Methods.

Appendix G
Data Summaries for Bulk Sediment and Elutriate Sample Analyses

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Bis(2-chloroethyl)ether								
Mean Concentration	645	400	1,192	746	533	560	428	665
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--
N-Nitroso-di-n-propylamine								
Mean Concentration	645	400	1,192	984	533	560	428	702
# of Detections	ND	ND	ND	2	ND	ND	ND	2
Detection Range	--	--	--	1,400-1,500	--	--	--	1,400-1,500
Hexachlorobutadiene								
Mean Concentration	645	400	1,192	746	533	560	428	665
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--
Acenaphthylene								
Mean Concentration	645	312	1,192	746	533	560	428	636
# of Detections	ND	1 (1J)	ND	ND	ND	ND	ND	1 (1J)
Detection Range	--	67	--	--	--	--	--	67
2,6-Dinitrotoluene								
Mean Concentration	645	400	1,192	746	533	560	428	665
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Acenaphthene								
Mean Concentration	645	330	1,192	1,034	533	560	428	695
# of Detections	ND	1 (1J)	ND	2 (1J)	ND	ND	ND	4 (3J)
Detection Range	--	140	--	1,600-1,700	--	--	--	97-1,700
2,4-Dinitrotoluene								
Mean Concentration	645	400	1,192	1,084	533	560	428	728
# of Detections	ND	ND	ND	2	ND	ND	ND	2
Detection Range	--	--	--	1,800-1,900	--	--	--	1,800-1,900
Fluorene								
Mean Concentration	645	333	1,192	746	533	560	428	638
# of Detections	ND	1 (1J)	ND	ND	ND	ND	ND	1 (1J)
Detection Range	--	150	--	--	--	--	--	150
Hexachlorobenzene								
Mean Concentration	645	400	1,192	746	533	560	428	665
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--
Anthracene								
Mean Concentration	645	350	948	584	383	415	428	522
# of Detections	ND	1 (1J)	2 (2J)	2 (2J)	2 (2J)	1 (1J)	ND	8 (8J)
Detection Range	--	220	110-140	150-160	90-160	71	--	71-220

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Fluoranthene								
Mean Concentration	245	695	640	526	535	350	312	486
# of Detections	3 (3J)	1	3 (1J)	5 (4J)	2 (1J)	2 (2J)	1 (1J)	17 (12J)
Detection Range	170-230	1,600	700-880	78-920	240-920	140-360	76	76-1,600
Pyrene								
Mean Concentration	263	537	630	880	520	360	313	548
# of Detections	3 (3J)	2 (1J)	3 (2J)	6 (4J)	2 (1J)	2 (2J)	1 (1J)	19 (14J)
Detection Range	180-260	38-1,300	720-820	68-2,300	300-770	160-380	80	38-2,300
3,3'-Dichlorobenzidine								
Mean Concentration	1,270	800	2,376	1,510	1,075	1,122	855	1,331
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--
Benzo(a)anthracene								
Mean Concentration	172	458	396	386	467	299	428	373
# of Detections	3 (3J)	1	3 (3J)	4 (3J)	2 (1J)	2 (2J)	ND	15 (12J)
Detection Range	82-120	650	320-400	210-500	250-500	86-210	--	82-650

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Chrysene								
Mean Concentration	210	450	474	389	513	320	428	406
# of Detections	3 (3J)	1	3 (3J)	5 (4J)	2 (1J)	2 (2J)	ND	16 (13J)
Detection Range	120-180	620	420-540	43-610	420-610	110-270	--	43-620
Benzo(b)fluoranthene								
Mean Concentration	195	398	426	396	463	302	428	382
# of Detections	3 (3J)	1 (1J)	3 (3J)	5 (4J)	2 (1J)	2 (2J)	ND	16 (14J)
Detection Range	120-140	410	360-500	55-560	220-510	100-210	--	55-560
Benzo(k)fluoranthene								
Mean Concentration	192	408	192	320	435	305	428	454
# of Detections	3 (3J)	1	2 (2J)	5 (5J)	2 (2J)	2 (2J)	ND	15 (14J)
Detection Range	97-160	450	340-570	41-360	200-360	120-200	--	41-570
Benzo(a)pyrene								
Mean Concentration	179	364	330	311	292	159	428	297
# of Detections	3 (3J)	2 (1J)	4 (4J)	6 (5J)	5 (4J)	4 (4J)	ND	24 (21J)
Detection Range	95-130	44-620	140-460	41-500	140-500	53-300	--	41-620
Indeno(1,2,3-cd)pyrene								
Mean Concentration	645	352	950	431	480	560	428	543
# of Detections	ND	1 (1J)	2(2J)	3 (3J)	1 (1J)	ND	ND	7 (7J)
Detection Range	--	230	99-160	120-140	140	--	--	99-230

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Dibenz(a,h)anthracene								
Mean Concentration	645	400	1,192	746	533	560	428	646
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--
Aldrin								
Mean Concentration	28	12	29	27	18	22	14	22
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--
Dieldrin								
Mean Concentration	58	24	57	54	35	43	27	42
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--
Endrin								
Mean Concentration	58	24	57	54	30	43	27	43
# of Detections	ND	ND	ND	ND	1 (1J)	ND	ND	1 (1J)
Detection Range	--	--	--	--	34	--	--	34
Toxaphene								
Mean Concentration	575	243	568	535	350	433	270	423
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	--	--	--	--	--	--	--	--

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
PCBs								
Mean Concentration	116	121	237	230	202	164	135	165
# of Detections	3 (3J)	ND	2 (2J)	2 (2J)	2 (1J)	2 (2J)	ND	11 (10J)
Detection Range	100-150	--	140-310	160-190	160-550	210-230	--	100-550
Arsenic								
Mean Concentration	10,910	1,640	9,434	6,690	9,067	8,700	3,775	7,291
# of Detections	4	4	5	8	6	4	4	35
Detection Range	540-14,800	590-4,100	970-19,500	820-14,200	3,200-25,200	1,100-14,900	1,400-6,400	540-25,200
Cadmium								
Mean Concentration	1,188	85	3,214	1,678	997	1,510	168	1,351
# of Detections	4	3	5	7	6	3	3	31
Detection Range	50-2,000	40-150	80-8,000	50-5,200	60-3,200	110-3,000	90-390	40-8,000
Chromium								
Mean Concentration	55,975	16,175	73,560	48,250	54,817	59,350	22,250	48,506
# of Detections	4	4	5	8	6	4	4	35
Detection Range	26,200-71,000	3,600-32,800	7,500-197,000	6,000-128,000	16,000-169,000	5,000-114,000	9,100-37,800	3,600-197,000
Copper								
Mean Concentration	46,275	5,425	70,280	41,613	28,200	40,050	15,725	36,669
# of Detections	4	4	5	8	6	4	4	35
Detection Range	11,800-65,700	3,400-6,800	2,300-165,000	1,900-104,000	4,200-97,000	1,200-78,800	8,000-24,700	1,200-165,000

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPO	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Lead								
Mean Concentration	57,100	4,350	88,020	49,700	39,117	53,600	10,200	44,954
# of Detections	4	4	5	8	6	4	4	35
Detection Range	6,800-79,800	1,300-7,300	2,800-205,000	2,900-154,000	4,400-140,000	1,800-110,000	1,600-22,800	1,300-205,000
Mercury								
Mean Concentration	318	120	420	265	287	358	128	275
# of Detections	3	ND	3	3	1	2	ND	12
Detection Range	330-460	--	390-850	390-550	970	520-640	--	330-970
Nickel								
Mean Concentration	29,650	4,855	26,260	20,138	18,983	20,975	14,425	19,598
# of Detections	4	4	5	8	6	4	4	35
Detection Range	18,900-37,200	120-11,900	4,700-47,200	4,700-32,700	10,700-34,900	3,900-34,600	7,700-21,800	120-47,200
Silver								
Mean Concentration	1,313	73	2,116	1,120	1,027	1,258	128	1,051
# of Detections	4	2	4	6	5	3	2	26
Detection Range	150-2,300	60-100	110-4,400	120-3,000	190-3,500	160-2,800	90-300	60-4,400
Thallium								
Mean Concentration	2,048	468	1,576	1,254	1,263	1,475	875	1,284
# of Detections	4	1	3	6	6	4	4	28
Detection Range	790-2,700	800	1,600-3,100	890-2,200	620-2,200	600-2,600	590-1,300	590-3,100

Data Summary of Bulk Sediment Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Zinc								
Mean Concentration	222,025	18,700	356,460	189,325	123,767	192,875	46,675	170,303
# of Detections	4	4	5	8	6	4	4	35
Detection Range	42,100-319,000	2,000-44,500	16,700-817,000	18,100-467,000	30,300-337,000	9,600-380,000	22,200-98,600	2,000-817,000

Notes:
All concentrations reported in parts per billion (ug/kg), dry weight.
ND - Not Detected
NA - Not Available

Data Summary of Elutriate Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Hexachlorocyclopentadiene, total								
Mean Concentration	10	10	10	10	10	10	10	10
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Hexachlorocyclopentadiene, dissolved								
Mean Concentration	10	10	10	10	10	10	10	10
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
2,4,6-Trichlorophenol, total								
Mean Concentration	10	10	10	10	10	10	10	10
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
2,4,6-Trichlorophenol, dissolved								
Mean Concentration	10	10	10	10	10	10	10	10
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Phenanthrene, total								
Mean Concentration	10	10	10	10	10	10	10	10
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Phenanthrene, dissolved								
Mean Concentration	10	10	10	10	10	10	10	10
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–

Data Summary of Elutriate Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Benzo(a)anthracene, total								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Benzo(a)anthracene, dissolved								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
1,2-Diphenyl-n-hydrazine, total								
Mean Concentration	100	100	100	100	100	100	100	100
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
1,2-Diphenyl-n-hydrazine, dissolved								
Mean Concentration	100	100	100	100	100	100	100	100
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Toxaphene, total								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Toxaphene, dissolved								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–

Data Summary of Elutriate Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMII	ALL
Number of Samples	4	4	5	8	6	4	4	35
Chloropyrifos, total								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Chloropyrifos, dissolved								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Parathion, total								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Parathion, dissolved								
Mean Concentration	1	1	1	1	1	1	1	1
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Formeldehyde, total								
Mean Concentration	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–
Formeldehyde, dissolved								
Mean Concentration	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
# of Detections	ND	ND	ND	ND	ND	ND	ND	ND
Detection Range	–	–	–	–	–	–	–	–

Data Summary of Elutriate Sample Analyses

Parameter	BPO	BST	CRC	PAT	SFM	SHI	SMU	ALL
Number of Samples	4	4	5	8	6	4	4	35
Aluminum, total								
Mean Concentration	57,875	26,710	101,060	93,125	192,500	119,250	31,441	95,612
# of Detections	4	4	5	8	6	4	4	35
Detection Range	24,300-79,300	2,200-78,300	18,500-206,000	17,500-238,000	116,000-292,000	17,000-238,000	945-95,100	945-292,000
Aluminum, dissolved								
Mean Concentration	1,053	159	2,475	7,296	7,415	2,707	769	3,828
# of Detections	4	4	5	8	6	4	4	35
Detection Range	478-1,770	136-177	294-8,280	697-21,200	490-40,800	213-8,800	158-2,330	136-40,800
Cadmium, total								
Mean Concentration	3.3	0.6	8.9	6.2	9.3	6.4	5.4	6.1
# of Detections	4	3	5	8	6	3	2	31
Detection Range	0.64-8.7	0.34-1.3	1.9-29.7	0.51-16.1	2.3-21.7	4.7-14	0.31-20.7	0.31-29.7
Cadmium, dissolved								
Mean Concentration	0.3	0.6	0.9	0.4	0.4	0.3	0.3	0.5
# of Detections	1	1	3	2	2	ND	ND	9
Detection Range	0.46-0.46	1.4	0.5-2.5	0.59-0.76	0.34-0.98	--	--	0.34-2.5
Chromium III, total								
Mean Concentration	278	64	423	306	813	505	125	381
# of Detections	4	3	5	8	6	4	3	33
Detection Range	73-448	9-198	82-948	76-543	440-1,668	44-976	24-451	9-1,668
Cobalt, total								
Mean Concentration	51.0	21.7	83.6	70.8	121.0	85.1	26.0	69.9
# of Detections	4	4	5	8	6	4	4	35
Detection Range	18.8-88.1	2.2-51.5	21.2-153	17.9-161	85.2-176	10.4-153	2.1-83.5	2.1-176

Data Summary of Elutriate Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SEM	SIH	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Copper, total								
Mean Concentration	243	60	340	198	375	280	166	244
# of Detections	4	4	5	8	6	4	4	35
Detection Range	62.1-395	12.8-106	65.8-866	61.3-360	145-909	33.6-573	15.8-548	12.8-909
Copper, dissolved								
Mean Concentration	97.3	185.6	58.2	53.2	89.2	108.8	36.0	84.6
# of Detections	4	4	5	8	6	4	4	35
Detection Range	51.3-184	3.8-449	25.3-119	10.2-95.3	48.4-148	32.1-190	10.1-71	3.8-449
Lead, total								
Mean Concentration	261.7	32.0	369.2	224.7	464.0	339.7	196.6	278.5
# of Detections	4	4	5	8	6	4	4	35
Detection Range	69.6-529	2.4-85.8	71.2-1,100	49.2-578	87.3-1,400	14.9-789	2.4-746	2.4-1,400
Lead, dissolved								
Mean Concentration	14.4	5.9	34.1	14.9	22.5	13.9	10.3	17.2
# of Detections	4	2	4	7	6	3	1	27
Detection Range	3.8-26.7	7.8-11.7	3.4-122	3-32.9	3.3-89.9	16.8-18.8	34.9-34.9	3-122
Mercury, total								
Mean Concentration	0.8	0.2	1.2	0.6	1.7	1.0	0.7	0.9
# of Detections	2	1	3	6	4	2	2	20
Detection Range	1.2-1.6	0.29-0.29	0.26-3.7	0.26-1.4	0.44-5.4	1.3-2.3	0.81-1.4	0.26-5.4
Mercury, dissolved								
Mean Concentration	0.7	0.4	1.8	0.4	0.2	0.2	0.3	0.6
# of Detections	3	2	3	2	2	ND	1	13
Detection Range	0.51-1.2	0.64	0.3-7.7	0.2-1.8	0.2-0.2	–	0.47-0.47	0.2-7.7

Data Summary of Elutriate Sample Analyses

Parameter	BPQ	BST	CRC	PAT	SFM	SHI	SMH	ALL
Number of Samples	4	4	5	8	6	4	4	35
Silver, total								
Mean Concentration	4.3	1.0	43.8	6.0	10.5	8.4	7.4	11.8
# of Detections	3	2	5	8	6	4	2	30
Detection Range	1.9-10.6	0.6-2.2	1.4-210	1.6-11.4	0.75-35.3	0.81-19.1	4.5-24	0.6-210
Silver, dissolved								
Mean Concentration	0.6	0.6	7.9	0.6	0.6	0.6	0.6	1.7
# of Detections	ND	ND	1	2	ND	ND	ND	3
Detection Range	–	–	37.2	0.62-0.91	–	–	–	0.62-37.2
Vanadium, total								
Mean Concentration	201	80	372	215	527	354	77	274
# of Detections	4	4	5	8	6	4	4	35
Detection Range	52.7-269	25.9-167	52.1-721	58.6-453	370-882	42.1-670	2.1-211	2.1-882
Zinc, total								
Mean Concentration	842	233	1,624	1,188	1,409	1,161	660	1,076
# of Detections	4	4	5	8	6	4	4	35
Detection Range	262-1,570	28.9-462	386-4,970	212-1,970	874-2,260	102-2,210	13.5-2,340	13.5-4,970
Zinc, dissolved								
Mean Concentration	118	104	233	142	159	130	49	139
# of Detections	4	4	5	8	6	4	3	34
Detection Range	76.6-154	35.3-178	23.2-520	26.6-307	18.2-540	53.8-237	21.6-121	18.2-540

Notes:
All concentrations reported in parts per billion (ug/L).
ND - Not Detected