

# **PRIORITY POLLUTANTS IN NEARSHORE SEDIMENTS IN PORT GARDNER, MUKILTEO AND EVERETT, WASHINGTON**

---

## **Abstract**

As part of continuing investigations of the Everett Harbor area, sediment from 17 sites along the southern shoreline of Port Gardner east of Mukilteo and Everett were sampled for priority pollutants (metals, volatile organics, semivolatile organics, and at 4 sites, PCBs). No priority pollutants were found at high concentrations and many sites had no detectable organic priority pollutants. These results suggest that no further work is necessary to evaluate potential contaminants in the study area.

## **Summary and Conclusions**

Priority pollutants, when found, were present in low concentrations. No potential "hotspot" of organics or metals contamination was found in the area surveyed in this study, and no sites had sediments above State marine sediment standards.

## **Recommendation**

No additional effort should be expended in examining sediments for priority pollutants in the study area.

## **Acknowledgements**

Several people and organizations contributed to this project. Rick Huey requested the study and helped in study design, sample collection and report review. Teresa Michelsen helped design the study. Stuart Magoon, Karin Feddersen, Pam Covey all assisted in analysis planning and sample handling. Manchester Environmental Laboratory, ARI Laboratories, and Soil Technology analyzed the samples. Larry Goldstein and Dale Norton reviewed the study

---

*Ecology is an affirmative action employer*

plan as well as this report. Joan LeTourneau prepared and proofread this report. I thank all these people and organizations.

## Introduction

Contamination of sediments in Everett Harbor and Port Gardner area were investigated and summarized in 1988 (PTI & Tetra Tech 1988). Sediments from several sites near the Mukilteo shoreline and south of Everett Harbor in southern Port Gardner were examined for priority pollutants (metals, volatile organics, semivolatile organics, and pesticides/PCBs). One sample near Mukilteo (NG-9) was elevated above reference values for PCBs (5500 ppb dry weight) and several sites in southern Port Gardner had high concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals. No studies have been reported that examined sediments along the shoreline between Mukilteo and southern Port Gardner, the main area of focus of this study. The entire Everett Harbor / Port Gardner area is being investigated to determine areas that need sediment cleanup and this study is one part of that effort. This study was conducted to achieve the following objectives:

- Analyze sediments for priority pollutant contaminants at several sites along the south shore of Port Gardner to Mukilteo.
- Provide data to guide priorities for overall cleanup of Everett Harbor and Port Gardner area.

## Methods

The study area and sampling sites are shown in Figure 1. Sediment samples from 17 sites were collected and analyzed for metals, volatile organic compounds, semivolatile organic compounds, total organic carbon, and grain size. Four of these sites were also examined for PCBs. Table 1 lists the analyses and laboratories conducting the analyses.

The sampling density was equivalent to earlier studies in the Everett Harbor area. Samples were taken at the numerous creek mouths as well as farther offshore to differentiate sources of contamination among the several watersheds that flow into the study area from the south. Paine Field and the Boeing assembly facility are major industrialized uses in the watershed. Samples were collected on December 2, 1993. The band of 15 inshore samples (sample site prefix "C") were intertidal and sampled on a high tide. The band slightly farther offshore (sample site prefix "S") is composed of 5 samples in about 40-50 feet of water. Locations of samples are listed in Table 2.

All samples were collected from a 20-foot skiff equipped with a davit and a modified 0.1m<sup>2</sup> Van Veen grab sampler. Only the top 2 cm of sediments in the sampler was retained for

analysis. All samples were homogenized in stainless steel beakers or stainless steel buckets, and subsamples poured into priority pollutant clean jars. All stainless steel beakers and implements were precleaned with detergent, 10% nitric acid, deionized water, and pesticide analysis grade acetone. The Van Veen sampler was rinsed with on-site water between samples. VOAs were taken into VOA bottles directly from the grab samples. Vessel positions were determined with GPS (Global Positioning System) and triangulation from landmarks.

All sampling and analysis work was conducted using Puget Sound Estuary Program protocols (EPA, 1986a). One matrix spike and one matrix spike duplicate were run to assess accuracy and precision. One blind field replicate (single sample homogenized and split in the field) was also submitted to assess overall precision.

Quality assurance reviews from the laboratory are shown in Appendix 1. The data are useable as qualified.

## Results and Discussion

Table 3 shows concentrations of chemicals found above detection limits as well as all values for grain size and total organic carbon. The concentrations of chemicals shown are compared with the Washington State sediment management standards (WAC 173-204) below which no adverse effects on biological resources are predicted. Original laboratory reports with concentrations found and detection limits for all analyses are shown in Appendix 2.

Volatile organics were found at eight sites all at low levels. These three chemicals found are not used in the field or in the laboratory for any part of the analysis or decontamination, and thus the findings here reflect concentrations in the environment. No sediment standards have been issued for volatile organics.

Semivolatile organics were found at 5 sites above quantification limits. Phenol was found at one site, C7, below the marine standards. PAHs were found above quantification limits at 5 sites. PAH is a product of incomplete combustion. No other priority pollutant semivolatile organics were found. A few tentatively identified compounds were found and these are listed in the Appendix along with the detection limits. No semivolatile organic for which there is a standard was found above sediment standards. PCBs were found above detection limits at 1/5th the sediment standard at site C4.

Metals were found at low concentrations at all sites. Table 3 compares metals concentrations in sediments to marine sediment standards. No metals concentrations approach the levels of the standards. There are no standards for nickel, but these concentrations are comparatively low. The samples were primarily sand. As smaller grain size tends to have more surface area on which metals can adsorb, some studies have found an inverse correlation of metals concentrations with grain size; the samples with greater percent clay have the comparatively higher concentration of metals. There is no current accepted method to correct or standardize

metals concentrations for differing grain size. The grain size distribution that predominates with sand suggests no areas of deposition.

The earlier study (PTI and Tetra Tech 1988) examined sediments from five sites that were in roughly the same area as this study (NG-02, NG-03, NG-04, NG-13, NG-14). Three of these were on the periphery of this study and two were in the center (NG-14 and NG-03). Both studies had comparable grain size (97%-100% sand in current study compared with 95%-97%) and TOC (0.18%-0.53% in this study and 0.18%-0.28% in the earlier study). No PCBs were found in the earlier study. Semivolatile organics were low in both studies except for NG-14 in the earlier study (inshore from C3) which had 450 ppm (mg/kg OC) total PAH. Metals concentrations were comparably low between the two studies.

Johnson and Norton (1989) examined sediments in Japanese Gulch and Powder Mill Gulch, two drainages that empty into the study area. They found low levels of metals at the mouths of these two drainages. Low concentrations of PAH were also found at Japanese Gulch. PCBs were found at high concentrations (20,000 ppb dry weight) at the source of Powder Mill Gulch and were found at low levels at the mouth (44 ppb dry weight; 8.8 mg/kg OC). The current study found PCBs at one quarter this level off the mouth of this creek (C3). The concentrations of organics, metals and PCBs are consistently low in this study area and indicate no contamination problems.

## References

- APHA. 1985. Standard Methods for the Examination of Water and Wastewater. 16th edition. American Public Health Association, Washington D.C.
- EPA. 1986a. Puget Sound Estuary Program: Recommended Protocols for Measuring Selected Environmental Variables in Puget Sound. Final Report. U.S. Environmental Protection Agency Region 10, Office of Puget Sound.
- EPA. 1986b. Test Methods for Evaluating Solid Waste. EPA Environmental monitoring and support laboratory, Cincinnati, OH. U.S. Environmental Protection Agency.
- Johnson, A. and D. Norton. 1989. Screening Survey for Chemical Contaminants and Toxicity in Drainage Basins at Paine Field, August 10-12, 1987. Washington State Department of Ecology, Olympia, WA 98504.
- PTI & Tetra Tech. 1988. Everett Harbor Action Program: Analysis of Toxic Problem Areas. Final report to US EPA Region X - Office of Puget Sound, Seattle, WA.
- Washington State Department of Ecology. 1991. Sediment Management Standards. Washington Administrative Code (WAC) Chapter 173-204.

---

## Contacts

James Cabbage      Washington State Department of Ecology  
Environmental Investigations and Laboratory Services  
Toxics Investigations Section  
(360) 407-6770

If you have special accommodation needs, please contact Joan LeTourneau at (360) 407-6764 (voice). Ecology's telecommunications device for the deaf (TDD) number at Ecology Headquarters is (360) 407-6006.

For additional copies of this publication, please contact Ecology's Publications Distribution Office at (360) 407-7472, and refer to publication number 95-301

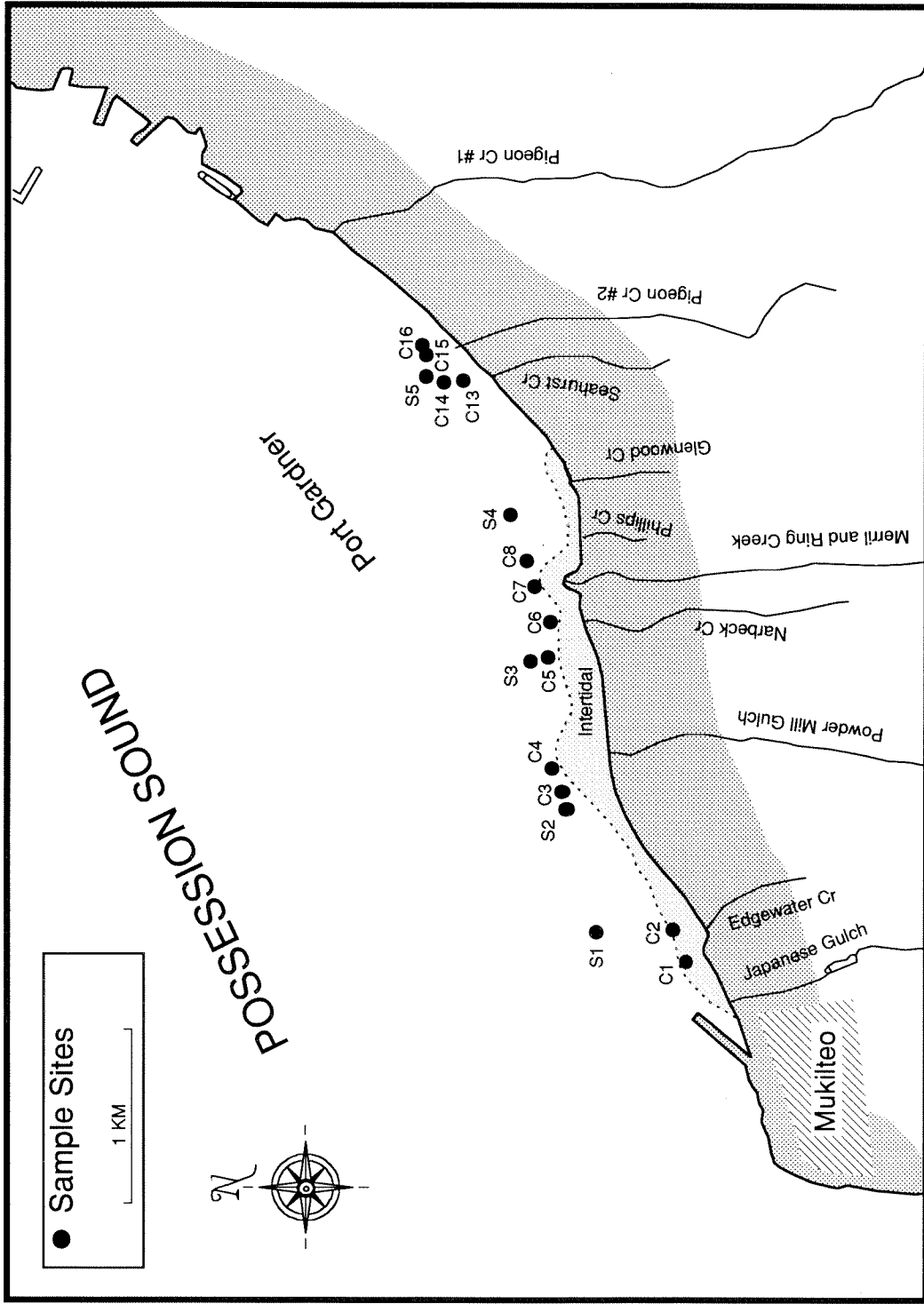


Figure 1. Sample site locations.

Table 1. Analytical methods and laboratories.

Analysis	Method	Reference	Laboratory
Total organic carbon	Persulfate-UV	EPA 1986a	Manchester Environmental Laboratory
Grain size	Seives and pipettes	EPA 1986a	Soil Technology
% Moisture	Dry @ 105 degrees C	APHA 1985	Manchester Environmental Laboratory
Arsenic	Atomic Absorption	EPA 1986b	Manchester Environmental Laboratory
Cadmium	Inductively Coupled Argon Plasma	EPA 1986b	Manchester Environmental Laboratory
Chromium	Inductively Coupled Argon Plasma	EPA 1986b	Manchester Environmental Laboratory
Copper	Inductively Coupled Argon Plasma	EPA 1986b	Manchester Environmental Laboratory
Mercury	Cold Vapor Atomic Absorption	EPA 1986b	Manchester Environmental Laboratory
Lead	Inductively Coupled Argon Plasma	EPA 1986b	Manchester Environmental Laboratory
Nickel	Inductively Coupled Argon Plasma	EPA 1986b	Manchester Environmental Laboratory
Silver	Inductively Coupled Argon Plasma	EPA 1986b	Manchester Environmental Laboratory
Zinc	Inductively Coupled Argon Plasma	EPA 1986b	Manchester Environmental Laboratory
Semivolatiles	GC/MS Method 8270	EPA 1986b	Manchester Environmental Laboratory
PCB	GC/EC Method 8080	EPA 1986b	Manchester Environmental Laboratory
VOAs	GC/MS Method 8240	EPA 1986b	Manchester Environmental Laboratory

Table 2. Locations of samples taken on 2 December 1993.

Site	Time	Depth (Ft) at MLLW*	Latitude		Longitude	
			Degrees	Minutes	Degrees	Minutes
C1	1145	3.0	47	57.22	122	17.33
C2	1210	1.6	47	57.49	122	17.19
C3	1250	10.4	47	57.58	122	16.51
C4	1310	13.7	47	57.61	122	16.40
C5	1405	10.1	47	57.61	122	15.85
C6	1440	0.0	47	57.60	122	15.69
C7	1500	6.8	47	57.64	122	15.52
C8	1520	8.6	47	57.66	122	15.40
C13	1635	3.5	47	57.84	122	14.53
C14	1650	2.2	47	57.90	122	14.50
C15	1705	3.0	47	57.95	122	14.39
C16	1740	0.6	47	57.96	122	14.33
S1	1225	37.9	47	57.26	122	17.23
S2	1340	46.0	47	57.57	122	16.59
S3	1420	51.1	47	57.66	122	15.86
S4	1540	39.3	47	57.78	122	15.20
S5	1620	43.7	47	57.95	122	14.50

\*Sample depth from Mean Lower Low Water (0 Tide)



Table 3. Concentrations of organics found above detection limits, all metals and conventionals.

Site	C01	C02	C03	C04	C05	C06	C07	C08	C13	C14	C15	C16	S1	S2	S3	S4	S5	Marine Standards*	
Lab Number	50-8105	50-8106	50-8107	50-8108	50-8109	50-8110	50-8111	50-8112	50-8117	50-8118	50-8119	50-8120	50-8122	50-8123	50-8124	50-8125	50-8126		
<b>Volatile Organics (<math>\mu\text{g}/\text{kg}</math> dry weight)</b>																			
Benzene	--	--	--	--	--	--	--	1.2 J	--	--	--	--	--	--	--	--	--	--	//
Chloroform	--	--	--	--	--	0.38 J	--	--	--	0.2 J	0.096 J	0.24 J	--	0.22 J	--	0.54 J	--	--	//
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	--	--	--	//
<b>Semivolatile Organics (<math>\mu\text{g}/\text{kg}</math> dry weight)</b>																			
Phenol	--	--	--	--	--	--	323	--	--	--	--	--	--	--	--	--	--	--	420
<b>Semivolatile Organics (mg/kg Total organic carbon)</b>																			
Phenanthrene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.0 J	--	--	8.1 J	100
Fluoranthene	6.2 J	8.8 J	--	--	--	--	--	--	--	--	--	--	18 J	--	7.6 J	--	--	16 J	160
Pyrene	5.9 J	7.2 J	--	--	--	--	--	--	--	--	--	--	20 J	--	6.0 J	--	--	13 J	1000
Benzo(k)fluoranthene	--	5.3 J	--	--	--	--	--	--	--	--	--	--	4.8 J	--	--	--	--	7.5 J	230
Ideno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--	--	--	5.8 J	--	--	--	--	--	34
PCB 1260	N/A	N/A	2.5 J	--	--	--	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.0
<b>Metals (mg/kg dry weight)</b>																			
Arsenic	5.2 P	3.9 P	2.7 P	2.2 P	3.1 P	4.4 P	4.6 P	4.4 P	5.1 P	4.2 P	5.0 P	4.1 P	4.2 P	3.8 P	3.9 P	4.0 P	5.2 P	57	
Cadmium	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	5.1
Chromium	11	9.1	7.9	6.5	8	8.6	12	9.8	9.9	9.3	10	9.9	7.5	8	8	9.4	9.1	260	
Copper	2.5	2.3	1.4	1.2	1.8	2.4	4.5	2.2	4.1	4.6	4.4	4.3	4.3	1.5	1.7	2.7	3	390	
Mercury	0.03 J	0.023 J	0.029 J	0.028 J	0.033 J	0.049 J	0.04 J	0.027 J	0.036 J	0.025 J	0.028 J	0.036 J	0.033 J	0.028 J	0.029 J	0.033 J	0.021 J	0.41	
Lead	2.7 P	2.8 P	2.4 P	1.8 P	2.7 P	2.7 P	3.4 P	2.2 P	4.6 P	2.8 P	2.8 P	2.9 P	6.6 P	2.8 P	8.7 P	2.6 P	3.3 P	450	
Nickel	12	11	6.2	5.6	6.2	8.3	13	9.3	11	11	12	10	5.8	6.5	6.9	20	7.2	//	
Silver	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	6.1	
Zinc	13 J	14 J	10 J	9.2 J	10 J	12 J	16 J	12 J	15 J	15 J	15 J	16 J	14 J	10 J	11 J	12 J	12 J	410	
<b>Conventionals (percent)</b>																			
TOC	0.2%	0.24%	0.2%	0.28%	0.27%	0.44%	0.53%	0.28%	0.42%	0.16%	0.17%	0.18%	0.36%	0.20%	0.31%	0.22%	0.31%	0.31%	
%Solids	79%	75%	73%	73%	76%	74%	69%	74%	72%	75%	74%	72%	78%	75%	73%	73%	76%	76%	
%Sand (>62.5 $\mu\text{m}$ )	99%	100%	98%	99%	99%	97%	90%	98%	99%	100%	99%	100%	98%	99%	98%	97%	98%	98%	
%Silt (<62.5 $\mu\text{m}$ )	0%	0%	1%	0%	1%	2%	7%	2%	1%	0%	1%	0%	1%	1%	1%	2%	1%	1%	
%Clay (<3.5 $\mu\text{m}$ )	1%	0%	1%	1%	0%	1%	3%	0%	0%	0%	0%	0%	1%	0%	1%	1%	0%	0%	

\* Marine sediment quality standards. Chapter 173:204-320 WAC April 1991 (// = no standard)

-- = Not found above detection limit.

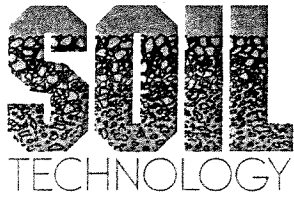
N/A = Not analysed for

J= Value is an estimate.

P=Value is an estimate due to low signal to noise ratio.

## **APPENDIX 1**

### **Quality Assurance Narratives**



SPECIALIZING IN PHYSICAL SOIL TESTING

7865 N.E. Day Road West  
Bainbridge Island, WA 98110  
(206) 842-8977 Fax 842-9014

## LETTER OF TRANSMITTAL

**TO:** Wa. State Dept. of Ecology  
Manchester Laboratory  
7411 Beach Drive East  
Port Orchard, WA 98366-8204

**DATE:** 01-04-94  
**JOB NO:** J-471

**ATTENTION:** Karin Feddersen

**SUBJECT:** Mukilteo Sediments

**REFERENCE:** Sample ID No. 508105 through 508112,  
508117 through 508120, 508122 through 508126

We are sending the following items:

Date	Copies	Description
01-04-94	2	Apparent Sediment Grain Size Distribution (Page 1 through 5)
01-04-94	2	Dissolved Solids Correction Table (Table 1)
01-04-94	1	Summary of Entry and Values (Page 6 through 24)
01-04-94	1	Chain of Custody Record
01-04-94	1	Original Invoice No. 656

These are transmitted for your use.

**Remarks:** Values reported are "apparent" particle size as organic material is included in the analysis. Samples were tested in general accordance with Puget Sound Estuary Protocol (Conventional Sediment Variables Particle Size March 1986) and EPA, US Army Corps "Dredged Material Testing Manual, February 1991". According to this method the determination of parameters in sediment and water from estuarine or marine environments have to explicitly address steps taken to control salt interference. Steps were taken to correct for salt interference and these corrections are referred to as dissolved solids.

Best Regards,  
SOIL TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Richard G. Sheets", written over a horizontal line.

Richard G. Sheets,  
Vice President

State of Washington Department of Ecology  
Manchester Environmental Laboratory  
7411 Beach Dr. East Port Orchard WA. 98366  
January 25, 1994

Project: **Mukilteo Sediments**  
Sample(s): 508105 - 508126  
Laboratory: Analytical Resources Inc. F844  
By: Karin Feddersen *KF*

These samples were received at Manchester Laboratory on December 6, 1993, and were transported to Analytical Resources, Inc. on December 12, 1993 for TOC analysis using the following method: Puget Sound Estuary Program protocol.

**HOLDING TIMES**

All analyses were performed within the method holding times.

**PROCEDURAL BLANKS**

The procedural blanks associated with these samples have demonstrated that the process is free from contamination.

**CHECK STANDARDS**

All recoveries are reasonable, acceptable, and within QC limits of 75% to 150%

**REPLICATES:**

Sample 508105 was analyzed in triplicate. These replicate analyses are within QC limits of 80% to 120% of the concentration of the original analysis.

**MATRIX SPIKES**

Sample 508105 was spiked and analyzed as a matrix spike and a matrix spike duplicate. All matrix spike recoveries and precision data are reasonable, acceptable, and within QC limits of 75% to 125%.


**SUMMARY**

This data is acceptable for use as reported.

**MANCHESTER ENVIRONMENTAL LABORATORY**  
7411 Beach Drive E , Port Orchard Washington 98366

**CASE NARRATIVE**

**January 5, 1994**

Subject: Mukilteo Sediments  
Samples: 93 - 508105 to -508112, -508117 to - 5081120 and -508122 to -508126  
Case No. DOE-932Y  
Officer: James Cabbage  
By: Dickey D. Huntamer   
Organics Analysis Unit

***SEMIVOLATILE ORGANICS***

**ANALYTICAL METHODS:**

The semivolatile soil samples were Soxhlet extracted with acetone following the Manchester modification of the EPA SW 846 8270 procedure with capillary GC/MS analysis of the sample extracts. Normal QA/QC procedures were performed with the analyses.

**HOLDING TIMES:**

All sample and extraction holding times were within the recommended limits.

**BLANKS:**

Low levels of some target compounds were detected in the laboratory blanks. The EPA five times rule was applied to all target compounds which were found in the blank. Compounds that were found in the sample and in the blank were considered real and not the result of contamination if the levels in the sample are greater than or equal to five times the amount of compounds in the associated method blank.

**SURROGATES:**

The normal surrogates compounds were added to the sample prior to extraction. All surrogate spike recoveries were within acceptable QC limits.

**MATRIX SPIKE AND MATRIX SPIKE DUPLICATE:**

Matrix spike recoveries and Relative Percent Differences (RPD) were within acceptable limits for all compounds except, hexachloroethane, benzoic acid, 4-chloroaniline, hexachlorocyclopentadiene, 3-nitroaniline, 4-nitrophenol, 4-nitroaniline, N-nitrosodiphenylamine, bis-(2-ethylhexyl)phthalate and benzo(g,h,i)perylene. Results for these compounds in the matrix source sample -508112, were qualified as estimates by adding the "J" flag.

**SPECIAL ANALYTICAL PROBLEMS:**

No special analytical problems were encountered in the semivolatile analyses. The data is acceptable for use as qualified.

**DATA QUALIFIER CODES:**

- U - The analyte was not detected at or above the reported value.
- J - The analyte was positively identified. The associated numerical value is an estimate.
- UJ - The analyte was not detected at or above the reported estimated result.
- REJ - The data are unusable for all purposes.
- EXP - The result is equal to the number before EXP times 10 to the power of the number after EXP. As an example 3EXP6 equals  $3 \times 10^6$ .
- NAF - Not analyzed for.
- N - For organic analytes there is evidence the analyte is present in this sample.
- NJ - There is evidence that the analyte is present. The associated numerical result is an estimate.
- E - This qualifier is used when the concentration of the associated value exceeds the known calibration range.
- \* - The analyte was present in the sample. (Visual Aid to locate detected compound on report sheet.)

**MANCHESTER ENVIRONMENTAL LABORATORY**

7411 Beach Drive E , Port Orchard Washington 98366

**CASE NARRATIVE**

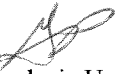
**December 30, 1993**


Subject: Mukilteo Sediments

Samples: 93 - 508105 to -508112, -508117 to - 5081120 and -508122 to -508126

Case No. DOE-932Y

Officer: James Cabbage

By: Greg Perez   
Organics Analysis Unit

Data Review: Dickey D. Huntamer 

***VOLATILE ORGANIC ANALYSIS***

**ANALYTICAL METHODS:**

Volatile organic compounds were analyzed by Method 8260, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, SW-846, 3rd Ed., 1986. Normal QA/QC procedures were performed on the samples.

**BLANKS:**

Low levels of the common laboratory solvents acetone and methylene chloride were detected in the laboratory blanks. The EPA five times rule was applied to all target compounds which were found in the blank. Compounds that were found in the sample and in the blank were considered real and not the result of contamination if the levels in the sample are greater than or equal to five times the amount of compounds in the associated method blank.

**SURROGATES:**

Surrogate recoveries were within acceptable limits for the soil samples.

**HOLDING TIMES:**

The soil samples were analyzed within the recommended 14 day holding time.

**MATRIX SPIKE AND MATRIX SPIKE DUPLICATE:**

Several compounds had low recoveries, however since the precision data was acceptable, it is likely this is due to the matrix.

**ANALYTICAL COMMENTS:**

Samples 508125 and 508126 contained high levels of methylene chloride which were not confirmed by dilution. The likeliest explanation is laboratory contamination during sample preparation. Additional analysis would be necessary to establish this positively. This compound will be reported with an elevated estimated limit of quantitation. The data is acceptable for use as qualified.

**DATA QUALIFIER CODES:**

- U - The analyte was not detected at or above the reported value.
- J - The analyte was positively identified. The associated numerical value is an estimate.
- UJ - The analyte was not detected at or above the reported estimated result.
- REJ - The data are unusable for all purposes.
- EXP - The result is equal to the number before EXP times 10 to the power of the number after EXP. As an example 3EXP6 equals  $3 \times 10^6$ .
- NAF - Not analyzed for.
- N - For organic analytes there is evidence the analyte is present in this sample.
- NJ - There is evidence that the analyte is present. The associated numerical result is an estimate.
- E - This qualifier is used when the concentration of the associated value exceeds the known calibration range.
- \* - The analyte was present in the sample. (Visual Aid to locate detected compound on report sheet.)





STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

MANCHESTER ENVIRONMENTAL LABORATORY

7411 Beach Drive East • Port Orchard, Washington 98366-8204 • (206) 871-8860 • SCAN 871-8860

December 27, 1993

TO: James Cubbage, Project Officer

FROM: Bill Kammin, Environmental\_Lab\_Director

SUBJECT: Metals Quality Assurance memo for the Mukilteo Sediment Project  
93508105 - 93508126

**SAMPLE INFORMATION**

These samples from the Mukilteo Sediment project were received by the Manchester Laboratory on 12/06/93 in good condition.

**HOLDING TIMES**

All analyses were performed within the USEPA Contract Laboratory Program (CLP) holding times for metals analysis (28 days for mercury, 180 days for all other metals).

**INSTRUMENT CALIBRATION**

Instrument calibration was performed before each analytical run and checked by initial calibration verification standards and blanks. Continuing calibration standards and blanks were analyzed at a frequency of 10% during the run and again at the end of the analytical run. All initial and continuing calibration verification standards were within the relevant USEPA (CLP) control limits. AA calibration gave a correlation coefficient (r) of 0.995 or greater, also meeting CLP calibration requirements.

**PROCEDURAL BLANKS**

The procedural blanks associated with these samples showed no analytically significant levels of analytes.



## **SPIKED SAMPLE ANALYSES**

Spike and duplicate spike sample analyses were performed on sample 93 508123 for mercury and 93 508126 for all other elements for this data set. All spike recoveries were within the CLP acceptance limits of +/- 25%, with the exceptions of cadmium, zinc, lead and mercury. The results for these elements are qualified to indicate possible bias.

## **PRECISION DATA**

The results of the spike and duplicate spike samples were used to evaluate precision on this sample set. The Relative Percent Difference (RPD) for all analytes was within the 20% CLP acceptance window for duplicate analysis, except for zinc.

## **LABORATORY CONTROL SAMPLE (LCS) ANALYSES**

LCS analyses were within the windows established for each parameter.

## **SUMMARY**

The data generated by the analysis of these samples can be used noting the data qualifications discussed in this memo.

Please call Bill Kammin at SCAN 206-871-8801 to further discuss this project.

MMM:mmm

**MANCHESTER ENVIRONMENTAL LABORATORY**

7411 Beach Drive E , Port Orchard Washington 98366

**CASE NARRATIVE**


December 27, 1993

Subject: Mukilteo Sediments

Samples: 93 - 508107 to -508110

Case No. DOE-932Y

Officer: James Cabbage

By: Dickey D. Huntamer   
Organics Analysis Unit

***POLYCHLORINATED BIPHENYLS***

**ANALYTICAL METHODS:**

The soil sample was Soxhlet extracted using acetone as the solvent. Analysis was done by EPA Method 8080 using dual column capillary GC analysis with Electron Capture Detectors (ECD). Additional sample clean-up was done using mercury and acid treatment to remove interferences.

**HOLDING TIMES:**

All sample extraction and analysis holding times were met.

**BLANKS:**

No target compounds were detected in the laboratory blanks.

**SURROGATES:**

All surrogate spike recoveries were within acceptable QC limits. Surrogates ranged from 64% to 97% recovery. Surrogate recovery for Dibutylchlorendate (DBC) is not reported. DBC was removed by the acid treatment procedure.

**MATRIX SPIKE AND MATRIX SPIKE :**

The matrix spikes recoveries ranged from 70% to 83%. The Relative Percent Differences (RPD) ranged from 16% to 11%. All recoveries and RPD were within acceptable QC limits.

## APPENDIX 2

Organic Detection Limits  
and  
Tentatively Identified Compounds

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508105

Description: C01

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	98.1U	ug/kg	Pyridine	98.1U	ug/kg	ETHANETHIOIC ACID, S-M+	170NJ*	ug/kg
2,4-Dinitrophenol	98.1U	ug/kg	bis(2-Chloroethyl)Ether	98.1U	ug/kg	UNKNOWN COMPOUND 1	411NJ*	ug/kg
Dibenzo(a,h)anthracene	98.1U	ug/kg	bis(2-Chloroethoxy)Met+	98.1U	ug/kg	UNKNOWN COMPOUND 2	323NJ*	ug/kg
Benzo(a)anthracene	98.1U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	98.1UJ	ug/kg	UNKNOWN COMPOUND 3	80.1NJ*	ug/kg
4-Chloro-3-Methylphenol	98.1U	ug/kg	Di-n-Octyl Phthalate	98.1U	ug/kg	UNKNOWN COMPOUND 4	136NJ*	ug/kg
Aniline	98.1U	ug/kg	HEXACHLORO BENZENE	98.1U	ug/kg	UNKNOWN COMPOUND 6	121NJ*	ug/kg
Nitrosamine, Dimethyl-	98.1UJ	ug/kg	Anthracene	98.1U	ug/kg	UNKNOWN COMPOUND 7	105NJ*	ug/kg
Benzoic acid	98.1UJ	ug/kg	1,2,4-Trichlorobenzene	98.1UJ	ug/kg	UNKNOWN COMPOUND 8	131NJ*	ug/kg
Hexachloroethane	491UJ	ug/kg	2,4-Dichlorophenol	98.1UJ	ug/kg	SULFUR, MOL. (S8)	217NJ*	ug/kg
Hexachlorocyclopentadi+	98.1U	ug/kg	2,4-Dinitrotoluene	491U	ug/kg	SULFUR, MOL. (S8)	3820NJ*	ug/kg
Isophorone	98.1U	ug/kg	Hydrazine, 1,2-Dipheny-	98.1UJ	ug/kg	FURAN, 2-METHOXY-	979NJ*	ug/kg
Acenaphthene	98.1U	ug/kg	Pyrene	11.8J*	ug/kg			
Diethylphthalate	98.1U	ug/kg	Dimethylphthalate	245U	ug/kg			
Di-n-Butylphthalate	98.1U	ug/kg	Dibenzofuran	98.1U	ug/kg			
Phenanthrene	98.1U	ug/kg	Benzo(ghi)perylene	98.1U	ug/kg			
Butylbenzylphthalate	98.1U	ug/kg	Indeno(1,2,3-cd)pyrene	98.1U	ug/kg			
N-Nitrosodiphenylamine	98.1U	ug/kg	Benzo(b)fluoranthene	98.1U	ug/kg			
Fluorene	98.1U	ug/kg	Fluoranthene	12.5J*	ug/kg			
Carbazole	98.1U	ug/kg	Benzo(k)fluoranthene	98.1U	ug/kg			
Hexachlorobutadiene	98.1U	ug/kg	Acenaphthylene	98.1U	ug/kg			
Pentachlorophenol	491UJ	ug/kg	Chrysene	98.1U	ug/kg			
2,4,6-Trichlorophenol	98.1U	ug/kg	Retene	79.7U	ug/kg			
2-Nitroaniline	245U	ug/kg	4,6-Dinitro-2-methylph+	981U	ug/kg			
2-Nitrophenol	245U	ug/kg	1,3-Dichlorobenzene	98.1U	ug/kg			
NAPHTHALENE, 1-METHYL-	98.1U	ug/kg	2,6-Dinitrotoluene	491U	ug/kg			
Naphthalene	98.1U	ug/kg	N-Nitroso-di-n-Propyla-	98.1U	ug/kg			
2-Methylnaphthalene	98.1U	ug/kg	4-Chlorophenyl-phenyle-	98.1U	ug/kg			
2-Chloronaphthalene	98.1U	ug/kg	BIS(20CHLOROISOPROPYL)+	98.1UJ	ug/kg			
3,3'-Dichlorobenzidine	123U	ug/kg	Surrog: 2-Fluorobiphen+	101	ug/kg			
Benzidine	123U	ug/kg	2-Fluorophenol	94	ug/kg			
2-Methylphenol	245U	ug/kg	Terphenyl-d14	108	ug/kg			
1,2-Dichlorobenzene	98.1U	ug/kg	Pyrene-d10	102	ug/kg			
o-Chlorophenol (2-Chlo+	98.1U	ug/kg	1,2-DICHLORO BENZENE-D4	79	ug/kg			
2,4,5-Trichlorophenol	98.1U	ug/kg	Surrog: D5-Nitrobenzene	91	ug/kg			
Nitrobenzene	98.1U	ug/kg	Surrog: Phenol D5	93	ug/kg			
3-Nitroaniline	245U	ug/kg	D4-2-CHLOROPHENOL (SS)	97	ug/kg			
4-Nitroaniline	98.1U	ug/kg						
4-Nitrophenol	245U	ug/kg						
Benzyl Alcohol	98.1U	ug/kg						
4-Bromophenyl-phenylet+	98.1U	ug/kg						
2,4-Dimethylphenol	98.1U	ug/kg						
4-Methylphenol	98.1U	ug/kg						
1,4-Dichlorobenzene	98.1U	ug/kg						
4-Chloroaniline	98.1U	ug/kg						
Phenol	98.1U	ug/kg						

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508106

Description: C02

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	104U	ug/kg	Pyridine	104U	ug/kg	CYCLOHEXASILOXANE, DOD+	408NJ*	ug/kg
2,4-Dinitrophenol	1040U	ug/kg	bis(2-Chloroethyl)Ether	104U	ug/kg	2-CYCLOHEXEN-1-ONE, 3,+	83.1NJ*	ug/kg
Dibenzo(a,h)anthracene	104U	ug/kg	bis(2-Chloroethoxy)Met+	104U	ug/kg	Trisiloxane, 1,1,1,5,5,+	171NJ*	ug/kg
Benzo(a)anthracene	104U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	104U	ug/kg	UNKNOWN COMPOUND 1	101NJ*	ug/kg
4-Chloro-3-Methylphenol	104U	ug/kg	Di-n-Octyl Phthalate	104U	ug/kg	UNKNOWN COMPOUND 2	104NJ*	ug/kg
Aniline	104U	ug/kg	HEXACHLORO BENZENE	104U	ug/kg	UNKNOWN COMPOUND 3	85.9NJ*	ug/kg
Nitrosamine, Dimethyl-	104U	ug/kg	Anthracene	104U	ug/kg	10-OCTADECENOIC ACID, +	88.7NJ*	ug/kg
Benzoic acid	104UJ	ug/kg	1,2,4-Trichlorobenzene	104UJ	ug/kg	9-HEXADECENOIC ACID, M+	109NJ*	ug/kg
Hexachloroethane	104U	ug/kg	2,4-Dichlorophenol	104UJ	ug/kg			
Hexachlorocyclopentadi+	521UJ	ug/kg	2,4-Dinitrotoluene	521U	ug/kg			
Isophorone	104U	ug/kg	Hydrazine, 1,2-Dipheny-	104UJ	ug/kg			
Acenaphthene	104U	ug/kg	Pyrene	17.6J*	ug/kg			
Diethylphthalate	104U	ug/kg	Dimethylphthalate	260U	ug/kg			
Di-n-Butylphthalate	450UJ	ug/kg	Dibenzofuran	104U	ug/kg			
Phenanthrene	104U	ug/kg	Benzo(ghi)perylene	104U	ug/kg			
Butylbenzylphthalate	104U	ug/kg	Indeno(1,2,3-cd)pyrene	104U	ug/kg			
N-Nitrosodiphenylamine	104U	ug/kg	Benzo(b)fluoranthene	12.8J*	ug/kg			
Fluorene	104U	ug/kg	Fluoranthene	21.4J*	ug/kg			
Carbazole	104U	ug/kg	Benzo(k)fluoranthene	104U	ug/kg			
Hexachlorobutadiene	104U	ug/kg	Acenaphthylene	104U	ug/kg			
Pentachlorophenol	521UJ	ug/kg	Chrysene	104U	ug/kg			
2,4,6-Trichlorophenol	104U	ug/kg	Retene	84.7U	ug/kg			
2-Nitroaniline	260U	ug/kg	4,6-Dinitro-2-methylph+	1040U	ug/kg			
2-Nitrophenol	260U	ug/kg	1,3-Dichlorobenzene	104U	ug/kg			
NAPHTHALENE, 1-METHYL-	104U	ug/kg	2,6-Dinitrotoluene	521U	ug/kg			
Naphthalene	104U	ug/kg	N-Nitroso-di-n-Propyla-	104U	ug/kg			
2-Methylnaphthalene	104U	ug/kg	4-Chlorophenyl-phenyle-	104U	ug/kg			
2-Chloronaphthalene	104U	ug/kg	BIS(20CHLOROISOPROPYL)+	104UJ	ug/kg			
3,3'-Dichlorobenzidine	130U	ug/kg	Surrog: 2-Fluorobiphen+	96	ug/kg			
Benzidine	130U	ug/kg	2-Fluorophenol	93	ug/kg			
2-Methylphenol	260U	ug/kg	Terphenyl-d14	106	ug/kg			
1,2-Dichlorobenzene	104U	ug/kg	Pyrene-d10	82	ug/kg			
o-Chlorophenol (2-Chlo+	104U	ug/kg	1,2-DICHLORO BENZENE-D4	67	ug/kg			
2,4,5-Trichlorophenol	104U	ug/kg	Surrog: D5-Nitrobenzene	93	ug/kg			
Nitrobenzene	104U	ug/kg	Surrog: Phenol D5	94	ug/kg			
3-Nitroaniline	260U	ug/kg	D4-2-CHLOROPHENOL (SS)	93	ug/kg			
4-Nitroaniline	104U	ug/kg						
4-Nitrophenol	260U	ug/kg						
Benzyl Alcohol	104U	ug/kg						
4-Bromophenyl-phenylet+	104U	ug/kg						
2,4-Dimethylphenol	104U	ug/kg						
4-Methylphenol	104U	ug/kg						
1,4-Dichlorobenzene	104U	ug/kg						
4-Chloroaniline	104U	ug/kg						
Phenol	104U	ug/kg						

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508107

Description: C03

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	1380U	ug/kg	Pyridine	1380U	ug/kg	PHYTOL	530NJ*	ug/kg
2,4-Dinitrophenol	1380U	ug/kg	bis(2-Chloroethyl)Ether	1380U	ug/kg	CYCLOHEXASILOXANE, DOD-	343NJ*	ug/kg
Dibenzo(a,h)anthracene	1380U	ug/kg	bis(2-Chloroethoxy)Met+	1380U	ug/kg	2-CYCLOHEXEN-1-ONE, 3,4-	309NJ*	ug/kg
Benzo(a)anthracene	1380U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	1380U	ug/kg	9-HEXADECENOIC ACID	950NJ*	ug/kg
4-Chloro-3-Methylphenol	1380U	ug/kg	Di-n-Octyl Phthalate	1380U	ug/kg	UNKNOWN COMPOUND 1	1460NJ*	ug/kg
Aniline	1380U	ug/kg	HEXACHLOROENZENE	1380U	ug/kg	UNKNOWN COMPOUND 3	530NJ*	ug/kg
Nitrosamine, Dimethyl-	1380U	ug/kg	Anthracene	1380U	ug/kg	UNKNOWN COMPOUND 4	1120NJ*	ug/kg
Benzoic acid	1380U	ug/kg	1,2,4-Trichlorobenzene	1380U	ug/kg	UNKNOWN COMPOUND 4	430NJ*	ug/kg
Hexachloroethane	1380U	ug/kg	2,4-Dichlorophenol	1380U	ug/kg	SULPUR, MOL (S8)	254NJ*	ug/kg
Hexachlorocyclopentadi-	6880U	ug/kg	2,4-Dinitrotoluene	6880U	ug/kg	14-OCTADECENOIC ACID, +	296NJ*	ug/kg
Isophorone	1380U	ug/kg	Hydrazine, 1,2-Dipheny-	1380U	ug/kg	9-HEXADECENOIC ACID, M+	659NJ*	ug/kg
Acenaphthene	1380U	ug/kg	Pyrene	1380U	ug/kg			
Diethylphthalate	1380U	ug/kg	Dimethylphthalate	3440U	ug/kg			
Di-n-Butylphthalate	1380U	ug/kg	Dibenzofuran	1380U	ug/kg			
Phenanthrene	1380U	ug/kg	Benzo(ghi)perylene	1380U	ug/kg			
Butylbenzylphthalate	1380U	ug/kg	Indeno(1,2,3-cd)pyrene	1380U	ug/kg			
N-Nitrosodiphenylamine	1380U	ug/kg	Benzo(b)fluoranthene	1380U	ug/kg			
Fluorene	1380U	ug/kg	Fluoranthene	1380U	ug/kg			
Carbazole	1380U	ug/kg	Benzo(k)fluoranthene	1380U	ug/kg			
Hexachlorobutadiene	1380U	ug/kg	Acenaphthylene	1380U	ug/kg			
Pentachlorophenol	6880U	ug/kg	Chrysene	1380U	ug/kg			
2,4,6-Trichlorophenol	1380U	ug/kg	Retene	1120U	ug/kg			
2-Nitroaniline	3440U	ug/kg	4,6-Dinitro-2-methylph-	1380U	ug/kg			
2-Nitrophenol	3440U	ug/kg	1,3-Dichlorobenzene	1380U	ug/kg			
NAPHTHALENE, 1-METHYL-	1380U	ug/kg	2,6-Dinitrotoluene	6880U	ug/kg			
Naphthalene	1380U	ug/kg	N-Nitroso-di-n-Propyla-	1380U	ug/kg			
2-Methylnaphthalene	1380U	ug/kg	4-Chlorophenyl-phenyle-	1380U	ug/kg			
2-Chloronaphthalene	1380U	ug/kg	BIS(20CHLOROISOPROPYL)+	1380U	ug/kg			
3,3'-Dichlorobenzidine	1720U	ug/kg	Surrog: 2-Fluorobiphen+	98	ug/kg			
Benzdine	1720U	ug/kg	2-Fluorophenol	94	ug/kg			
2-Methylphenol	3440U	ug/kg	Terphenyl-d14	99	ug/kg			
1,2-Dichlorobenzene	1380U	ug/kg	Pyrene-d10	91	ug/kg			
o-Chlorophenol (2-Chlo+	1380U	ug/kg	1,2-DICHLOROBENZENE-D4	85	ug/kg			
2,4,5-Trichlorophenol	1380U	ug/kg	Surrog: D5-Nitrobenzene	94	ug/kg			
Nitrobenzene	1380U	ug/kg	Surrog: Phenol D5	94	ug/kg			
3-Nitroaniline	3440U	ug/kg	D4-2-CHLOROPHENOL (SS)	95	ug/kg			
4-Nitroaniline	1380U	ug/kg						
4-Nitrophenol	3440U	ug/kg						
Benzyl Alcohol	1380U	ug/kg						
4-Bromophenyl-phenylet+	1380U	ug/kg						
2,4-Dimethylphenol	1380U	ug/kg						
4-Methylphenol	1380U	ug/kg						
1,4-Dichlorobenzene	1380U	ug/kg						
4-Chloroaniline	1380U	ug/kg						
Phenol	1380U	ug/kg						

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508108

Description: C04

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	1310U	ug/kg	Pyridine	1310U	ug/kg	PHYTOL	458NJ*	ug/kg
2,4-Dinitrophenol	1310U	ug/kg	bis(2-Chloroethyl)Ether	1310U	ug/kg	9-HEXADECENOIC ACID, M+	533NJ*	ug/kg
Dibenzo(a,h)anthracene	1310U	ug/kg	bis(2-Chloroethoxy)Met+	1310U	ug/kg	Oxacyclohexadecan-2-on+	758NJ*	ug/kg
Benzo(a)anthracene	1310U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	152000U	ug/kg	UNKNOWN COMPOUND 1	944NJ*	ug/kg
4-Chloro-3-Methylphenol	1310U	ug/kg	Di-n-Octyl Phthalate	1310U	ug/kg	UNKNOWN COMPOUND 2	188NJ*	ug/kg
Aniline	1310U	ug/kg	HEXACHLOROENZENE	1310U	ug/kg	UNKNOWN COMPOUND 3	380NJ*	ug/kg
Nitrosamine, Dimethyl-	1310U	ug/kg	Anthracene	1310U	ug/kg	UNKNOWN COMPOUND 4	333NJ*	ug/kg
Benzoic acid	1310U	ug/kg	1,2,4-Trichlorobenzene	1310U	ug/kg	UNKNOWN COMPOUND 5	345NJ*	ug/kg
Hexachloroethane	6560U	ug/kg	2,4-Dichlorophenol	1310U	ug/kg	Sulfuric acid, 5,8,11+	199NJ*	ug/kg
Hexachlorocyclopentadi-	1310U	ug/kg	2,4-Dinitrotoluene	6560U	ug/kg			
Isophorone	1310U	ug/kg	Hydrazine, 1,2-Dipheny-	1310U	ug/kg			
Acenaphthene	1310U	ug/kg	Pyrene	1310U	ug/kg			
Diethylphthalate	1310U	ug/kg	Dimethylphthalate	3280U	ug/kg			
Di-n-Butylphthalate	1310U	ug/kg	Dibenzofuran	1310U	ug/kg			
Phenanthrene	1310U	ug/kg	Benzo(ghi)perylene	1310U	ug/kg			
Butylbenzylphthalate	1310U	ug/kg	Indeno(1,2,3-cd)pyrene	1310U	ug/kg			
N-Nitrosodiphenylamine	1310U	ug/kg	Benzo(b)fluoranthene	1310U	ug/kg			
Fluorene	1310U	ug/kg	Fluoranthene	1310U	ug/kg			
Carbazole	1310U	ug/kg	Benzo(k)fluoranthene	1310U	ug/kg			
Hexachlorobutadiene	1310U	ug/kg	Acenaphthylene	1310U	ug/kg			
Pentachlorophenol	6560U	ug/kg	Chrysene	1310U	ug/kg			
2,4,6-Trichlorophenol	1310U	ug/kg	Retene	1060U	ug/kg			
2-Nitroaniline	3280U	ug/kg	4,6-Dinitro-2-methylph-	1310U	ug/kg			
2-Nitrophenol	3280U	ug/kg	1,3-Dichlorobenzene	1310U	ug/kg			
NAPHTHALENE, 1-METHYL-	1310U	ug/kg	2,6-Dinitrotoluene	6560U	ug/kg			
Naphthalene	1310U	ug/kg	N-Nitroso-di-n-Propyla-	1310U	ug/kg			
2-Methylnaphthalene	1310U	ug/kg	4-Chlorophenyl-phenyle-	1310U	ug/kg			
2-Chloronaphthalene	1310U	ug/kg	BIS(20CHLOROISOPROPYL)+	1310U	ug/kg			
3,3'-Dichlorobenzidine	1640U	ug/kg	Surrog: 2-Fluorobiphen+	96	ug/kg			
Benzdine	1640U	ug/kg	2-Fluorophenol	94	ug/kg			
2-Methylphenol	3280U	ug/kg	Terphenyl-d14	108	ug/kg			
1,2-Dichlorobenzene	1310U	ug/kg	Pyrene-d10	83	ug/kg			
o-Chlorophenol (2-Chlo+	1310U	ug/kg	1,2-DICHLOROBENZENE-D4	76	ug/kg			
2,4,5-Trichlorophenol	1310U	ug/kg	Surrog: D5-Nitrobenzene	91	ug/kg			
Nitrobenzene	1310U	ug/kg	Surrog: Phenol D5	94	ug/kg			
3-Nitroaniline	3280U	ug/kg	D4-2-CHLOROPHENOL (SS)	93	ug/kg			
4-Nitroaniline	1310U	ug/kg						
4-Nitrophenol	3280U	ug/kg						
Benzyl Alcohol	1310U	ug/kg						
4-Bromophenyl-phenylet+	1310U	ug/kg						
2,4-Dimethylphenol	1310U	ug/kg						
4-Methylphenol	1310U	ug/kg						
1,4-Dichlorobenzene	1310U	ug/kg						
4-Chloroaniline	1310U	ug/kg						
Phenol	1310U	ug/kg						

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508109

Description: C05

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan	Sediment Result	Units	Tent Ident	B/N/Aci	Sediment Result	Units
Benzo(a)pyrene	1440	ug/kg	Pyridine	1440	ug/kg	11-OCTADECENOIC ACID, +		373NJ*	ug/kg
2,4-Dinitrophenol	1440U	ug/kg	bis(2-Chloroethyl)Ether	1440	ug/kg	9-HEXADECENOIC ACID		1040NJ*	ug/kg
Dibenzo(a,h)anthracene	1440	ug/kg	bis(2-Chloroethoxy)Met+	1440	ug/kg	UNKNOWN COMPOUND 1		250NJ*	ug/kg
Benzo(a)anthracene	1440	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	1440	ug/kg	UNKNOWN COMPOUND 2		557NJ*	ug/kg
4-Chloro-3-Methylphenol	1440	ug/kg	Di-n-Octyl Phthalate	1440	ug/kg	UNKNOWN COMPOUND 3		256NJ*	ug/kg
Aniline	1440	ug/kg	HEXACHLOROBENZENE	1440	ug/kg	UNKNOWN COMPOUND 4		340NJ*	ug/kg
Nitrosamine, Dimethyl-	1440U	ug/kg	Anthracene	1440	ug/kg	UNKNOWN COMPOUND 5		2440NJ*	ug/kg
Benzoic acid	1440U	ug/kg	1,2,4-Trichlorobenzene	1440U	ug/kg	SULFUR, MOL. (S8)		394NJ*	ug/kg
Hexachloroethane	1440	ug/kg	2,4-Dichlorophenol	1440U	ug/kg	PENTANOIC ACID, 3-HYDR+		264NJ*	ug/kg
Hexachlorocyclopentadi+	7200U	ug/kg	2,4-Dinitrotoluene	7200	ug/kg	9-HEXADECENOIC ACID, M+		582NJ*	ug/kg
Isophorone	1440	ug/kg	Hydrazine, 1,2-Dipheny+	1440	ug/kg				
Acenaphthene	1440	ug/kg	Pyrene	1440	ug/kg				
Diethylphthalate	1440	ug/kg	Dimethylphthalate	3600	ug/kg				
Di-n-Butylphthalate	1440	ug/kg	Dibenzofuran	1440	ug/kg				
Phenanthrene	1440	ug/kg	Benzo(g,h)perylene	1440	ug/kg				
Butylbenzylphthalate	1440	ug/kg	Indeno(1,2,3-cd)pyrene	1440	ug/kg				
N-Nitrosodiphenylamine	1440	ug/kg	Benzo(b)fluoranthene	1440	ug/kg				
Fluorene	1440	ug/kg	Fluoranthene	1440	ug/kg				
Carbazole	1440	ug/kg	Benzo(k)fluoranthene	1440	ug/kg				
Hexachlorobutadiene	1440	ug/kg	Acenaphthylene	1440	ug/kg				
Pentachlorophenol	7200U	ug/kg	Chrysene	1440	ug/kg				
2,4,6-Trichlorophenol	1440	ug/kg	Retene	1170	ug/kg				
2-Nitroaniline	3600	ug/kg	4,6-Dinitro-2-methylph+	1440U	ug/kg				
2-Nitrophenol	3600	ug/kg	1,3-Dichlorobenzene	1440	ug/kg				
NAPHTHALENE, 1-METHYL-	1440	ug/kg	2,6-Dinitrotoluene	7200	ug/kg				
Naphthalene	1440	ug/kg	N-Nitroso-di-n-Propyla+	1440	ug/kg				
2-Methylnaphthalene	1440	ug/kg	4-Chlorophenyl-phenyl+	1440	ug/kg				
2-Chloronaphthalene	1440	ug/kg	BIS(20CHLOROISOPROPYL)+	1440U	ug/kg				
3,3'-Dichlorobenzidine	1800	ug/kg	Surrog: 2-Fluorobiphen+	94	ug/kg				
Benzdine	1800	ug/kg	2-Fluorophenol	90	ug/kg				
2-Methylphenol	3600	ug/kg	Terphenyl-d14	101	ug/kg				
1,2-Dichlorobenzene	1440	ug/kg	Pyrene-d10	97	ug/kg				
o-Chlorophenol (2-Chlo-	1440	ug/kg	1,2-DICHLOROBENZENE-D4	75	ug/kg				
2,4,5-Trichlorophenol	1440	ug/kg	Surrog: D5-Nitrobenzene	86	ug/kg				
Nitrobenzene	1440	ug/kg	Surrog: Phenol D5	89	ug/kg				
3-Nitroaniline	3600	ug/kg	D4-2-CHLOROPHENOL (SS)	91	ug/kg				
4-Nitroaniline	1440	ug/kg							
4-Nitrophenol	3600	ug/kg							
Benzyl Alcohol	1440	ug/kg							
4-Bromophenyl-phenylet+	1440U	ug/kg							
2,4-Dimethylphenol	1440	ug/kg							
4-Methylphenol	1440	ug/kg							
1,4-Dichlorobenzene	1440	ug/kg							
4-Chloroaniline	1440	ug/kg							
Phenol	1440	ug/kg							

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508110

Description: C06

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan	Sediment Result	Units	Tent Ident	B/N/Aci	Sediment Result	Units
Benzo(a)pyrene	1610	ug/kg	Pyridine	1610	ug/kg	PHYTOL		368NJ*	ug/kg
2,4-Dinitrophenol	1610U	ug/kg	bis(2-Chloroethyl)Ether	1610	ug/kg	CYCLOHEXASILOXANE, DOD+		407NJ*	ug/kg
Dibenzo(a,h)anthracene	1610	ug/kg	bis(2-Chloroethoxy)Met+	1610	ug/kg	9-HEXADECENOIC ACID, M+		375NJ*	ug/kg
Benzo(a)anthracene	1610	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	1610U	ug/kg	2-CYCLOHEXEN-1-ONE, 3,+		503NJ*	ug/kg
4-Chloro-3-Methylphenol	1610	ug/kg	Di-n-Octyl Phthalate	1610	ug/kg	9-HEXADECENOIC ACID		826NJ*	ug/kg
Aniline	1610	ug/kg	HEXACHLOROBENZENE	1610	ug/kg	UNKNOWN COMPOUND 1		866NJ*	ug/kg
Nitrosamine, Dimethyl-	1610U	ug/kg	Anthracene	1610	ug/kg	UNKNOWN COMPOUND 2		423NJ*	ug/kg
Benzoic acid	1610U	ug/kg	1,2,4-Trichlorobenzene	1610U	ug/kg	UNKNOWN COMPOUND 3		776NJ*	ug/kg
Hexachloroethane	1610	ug/kg	2,4-Dichlorophenol	1610U	ug/kg	SULFUR, MOL. (S8)		1410NJ*	ug/kg
Hexachlorocyclopentadi+	8060U	ug/kg	2,4-Dinitrotoluene	8060	ug/kg				
Isophorone	1610	ug/kg	Hydrazine, 1,2-Dipheny+	1610U	ug/kg				
Acenaphthene	1610	ug/kg	Pyrene	1610	ug/kg				
Diethylphthalate	1610	ug/kg	Dimethylphthalate	4030	ug/kg				
Di-n-Butylphthalate	1610	ug/kg	Dibenzofuran	1610	ug/kg				
Phenanthrene	1610	ug/kg	Benzo(g,h)perylene	1610	ug/kg				
Butylbenzylphthalate	1610	ug/kg	Indeno(1,2,3-cd)pyrene	1610	ug/kg				
N-Nitrosodiphenylamine	1610	ug/kg	Benzo(b)fluoranthene	1610	ug/kg				
Fluorene	1610	ug/kg	Fluoranthene	1610	ug/kg				
Carbazole	1610	ug/kg	Benzo(k)fluoranthene	1610	ug/kg				
Hexachlorobutadiene	1610	ug/kg	Acenaphthylene	1610	ug/kg				
Pentachlorophenol	8060U	ug/kg	Chrysene	1610	ug/kg				
2,4,6-Trichlorophenol	1610	ug/kg	Retene	1310	ug/kg				
2-Nitroaniline	4030	ug/kg	4,6-Dinitro-2-methylph+	1610U	ug/kg				
2-Nitrophenol	4030	ug/kg	1,3-Dichlorobenzene	1610	ug/kg				
NAPHTHALENE, 1-METHYL-	1610	ug/kg	2,6-Dinitrotoluene	8060	ug/kg				
Naphthalene	1610	ug/kg	N-Nitroso-di-n-Propyla+	1610	ug/kg				
2-Methylnaphthalene	1610	ug/kg	4-Chlorophenyl-phenyl+	1610	ug/kg				
2-Chloronaphthalene	1610	ug/kg	BIS(20CHLOROISOPROPYL)+	1610U	ug/kg				
3,3'-Dichlorobenzidine	2010	ug/kg	Surrog: 2-Fluorobiphen+	89	ug/kg				
Benzdine	2010	ug/kg	2-Fluorophenol	84	ug/kg				
2-Methylphenol	4030	ug/kg	Terphenyl-d14	99	ug/kg				
1,2-Dichlorobenzene	1610	ug/kg	Pyrene-d10	75	ug/kg				
o-Chlorophenol (2-Chlo-	1610	ug/kg	1,2-DICHLOROBENZENE-D4	66	ug/kg				
2,4,5-Trichlorophenol	1610	ug/kg	Surrog: D5-Nitrobenzene	81	ug/kg				
Nitrobenzene	1610	ug/kg	Surrog: Phenol D5	84	ug/kg				
3-Nitroaniline	4030	ug/kg	D4-2-CHLOROPHENOL (SS)	85	ug/kg				
4-Nitroaniline	1610	ug/kg							
4-Nitrophenol	4030	ug/kg							
Benzyl Alcohol	1610	ug/kg							
4-Bromophenyl-phenylet+	1610	ug/kg							
2,4-Dimethylphenol	1610	ug/kg							
4-Methylphenol	1610	ug/kg							
1,4-Dichlorobenzene	1610	ug/kg							
4-Chloroaniline	1610	ug/kg							
Phenol	1610	ug/kg							

Project DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508111

Description: C07

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result Units	B/N/Acid Scan *** Continued ***	Sediment Result Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result Units
Benzo(a)pyrene	109U ug/kg	Pyridine	109U ug/kg	Oleic acid	1700NJ* ug/kg
2,4-Dinitrophenol	1090U ug/kg	bis(2-Chloroethyl)Ether	109U ug/kg	PHYTOL	503NJ* ug/kg
Dibenzo(a,h)anthracene	109U ug/kg	bis(2-Chloroethoxy)Met+	109U ug/kg	Decanoic Acid, Tetra-	355NJ* ug/kg
Benzo(a)anthracene	109U ug/kg	BIS(2-ETHYLHEXYL) PHTH+	109U ug/kg	Decanoic Acid, Penta-	384NJ* ug/kg
4-Chloro-3-Methylphenol	109U ug/kg	Di-n-Octyl Phthalate	109U ug/kg	Decanoic Acid, Penta-	449NJ* ug/kg
Aniline	109U ug/kg	HEXACHLORO BENZENE	109U ug/kg	9-HEXADECENOIC ACID	1720NJ* ug/kg
Nitrosamine, Dimethyl-	109U ug/kg	Anthracene	109U ug/kg	PROPANEDIOIC ACID, PHE+	416NJ* ug/kg
Benzoic acid	109UJ ug/kg	1,2,4-Trichlorobenzene	109UJ ug/kg	UNKNOWN COMPOUND 1	380NJ* ug/kg
Hexachloroethane	109U ug/kg	2,4-Dichlorophenol	109UJ ug/kg	UNKNOWN COMPOUND 2	370NJ* ug/kg
Hexachlorocyclopentadi-	5430UJ ug/kg	2,4-Dinitrotoluene	543U ug/kg	UNKNOWN COMPOUND 3	267NJ* ug/kg
Isophorone	109U ug/kg	Hydrazine, 1,2-Dipheny+	109UJ ug/kg	UNKNOWN COMPOUND 4	1750NJ* ug/kg
Acenaphthene	109U ug/kg	Pyrene	109U ug/kg	SULFUR, MOL. (S8)	2440NJ* ug/kg
Diethylphthalate	109U ug/kg	Dimethylphthalate	272U ug/kg		
Di-n-Butylphthalate	109U ug/kg	Dibenzofuran	109U ug/kg		
Phenanthrene	109U ug/kg	Benzo(ghi)perylene	109U ug/kg		
Butylbenzylphthalate	109U ug/kg	Indeno(1,2,3-cd)pyrene	109U ug/kg		
N-Nitrosodiphenylamine	109U ug/kg	Benzo(b)fluoranthene	109U ug/kg		
Fluorene	109U ug/kg	Fluoranthene	109U ug/kg		
Carbazole	109U ug/kg	Benzo(k)fluoranthene	109U ug/kg		
Hexachlorobutadiene	109U ug/kg	Acenaphthylene	109U ug/kg		
Pentachlorophenol	5430UJ ug/kg	Chrysene	109U ug/kg		
2,4,6-Trichlorophenol	109U ug/kg	Retene	88.2U ug/kg		
2-Nitroaniline	272U ug/kg	4,6-Dinitro-2-methylph+	1090U ug/kg		
2-Nitrophenol	272U ug/kg	1,3-Dichlorobenzene	109U ug/kg		
NAPHTHALENE, 1-METHYL-	109U ug/kg	2,6-Dinitrotoluene	543U ug/kg		
Napthalene	109U ug/kg	N-Nitroso-di-n-Propyla+	109U ug/kg		
2-Methylnapthalene	109U ug/kg	4-Chlorophenyl-phenyle+	109U ug/kg		
2-Chloronapthalene	109U ug/kg	BIS(20CHLOROISOPROPYL)+	1090UJ ug/kg		
3,3'-Dichlorobenzidine	136U ug/kg	Surrog: 2-Fluorobiphen+	107 ug/kg		
Benzidine	136U ug/kg	2-Fluorophenol	100 ug/kg		
2-Methylphenol	272U ug/kg	Terphenyl-d14	113 ug/kg		
1,2-Dichlorobenzene	109U ug/kg	Pyrene-d10	102 ug/kg		
o-Chlorophenol (2-Chlo-	109U ug/kg	1,2-DICHLORO BENZENE-D4	78 ug/kg		
2,4,5-Trichlorophenol	109U ug/kg	Surrog: D5-Nitrobenzene	95 ug/kg		
Nitrobenzene	109U ug/kg	Surrog: Phenol D5	99 ug/kg		
3-Nitroaniline	272U ug/kg	D4-2-CHLOROPHENOL (SS)	102 ug/kg		
4-Nitroaniline	109U ug/kg				
4-Nitrophenol	272U ug/kg				
Benzyl Alcohol	109U ug/kg				
4-Bromophenyl-phenylet+	109U ug/kg				
2,4-Dimethylphenol	109U ug/kg				
4-Methylphenol	109U ug/kg				
1,4-Dichlorobenzene	109U ug/kg				
4-Chloroaniline	109U ug/kg				
Phenol	323 * ug/kg				

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508112

Description: C08

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result Units	B/N/Acid Scan *** Continued ***	Sediment Result Units	B/N/Acid Scan *** Continued ***	Sediment Result Units
Benzo(a)pyrene	110U ug/kg	Pyridine	110U ug/kg	Benzo(a)anthracene	92 ug/kg
2,4-Dinitrophenol	1100U ug/kg	bis(2-Chloroethyl)Ether	110U ug/kg	4-Chloro-3-Methylphenol	87 ug/kg
Dibenzo(a,h)anthracene	110U ug/kg	bis(2-Chloroethoxy)Met+	110U ug/kg	Aniline	NAP ug/kg
Benzo(a)anthracene	110U ug/kg	BIS(2-ETHYLHEXYL) PHTH+	5250UJ ug/kg	Nitrosamine, Dimethyl-	NAP ug/kg
4-Chloro-3-Methylphenol	110U ug/kg	Di-n-Octyl Phthalate	110U ug/kg	Benzoic acid	11 ug/kg
Aniline	110U ug/kg	HEXACHLORO BENZENE	110U ug/kg	Hexachloroethane	37 ug/kg
Nitrosamine, Dimethyl-	110U ug/kg	Anthracene	110U ug/kg	Hexachlorocyclopentadi-	REJ ug/kg
Benzoic acid	1100UJ ug/kg	1,2,4-Trichlorobenzene	110UJ ug/kg	Isophorone	87 ug/kg
Hexachloroethane	1100UJ ug/kg	2,4-Dichlorophenol	110UJ ug/kg	Acenaphthene	90 ug/kg
Hexachlorocyclopentadi-	5490UJ ug/kg	2,4-Dinitrotoluene	549U ug/kg	Diethylphthalate	88 ug/kg
Isophorone	110U ug/kg	Hydrazine, 1,2-Dipheny+	110UJ ug/kg	Di-n-Butylphthalate	95 ug/kg
Acenaphthene	110U ug/kg	Pyrene	110U ug/kg	Phenanthrene	103 ug/kg
Diethylphthalate	110U ug/kg	Dimethylphthalate	274U ug/kg	Butylbenzylphthalate	85 ug/kg
Di-n-Butylphthalate	110U ug/kg	Dibenzofuran	110U ug/kg	N-Nitrosodiphenylamine	160 ug/kg
Phenanthrene	110U ug/kg	Benzo(ghi)perylene	110UJ ug/kg	Fluorene	92 ug/kg
Butylbenzylphthalate	110U ug/kg	Indeno(1,2,3-cd)pyrene	110U ug/kg	Carbazole	NAP ug/kg
N-Nitrosodiphenylamine	1100UJ ug/kg	Benzo(b)fluoranthene	110U ug/kg	Hexachlorobutadiene	77 ug/kg
Fluorene	110U ug/kg	Fluoranthene	110U ug/kg	Pentachlorophenol	53 ug/kg
Carbazole	110U ug/kg	Benzo(k)fluoranthene	110U ug/kg	2,4,6-Trichlorophenol	88 ug/kg
Hexachlorobutadiene	110U ug/kg	Acenaphthylene	110U ug/kg	2-Nitroaniline	91 ug/kg
Pentachlorophenol	5490UJ ug/kg	Chrysene	110U ug/kg	2-Nitrophenol	87 ug/kg
2,4,6-Trichlorophenol	110U ug/kg	Retene	89.2U ug/kg	NAPHTHALENE, 1-METHYL-	NAP ug/kg
2-Nitroaniline	274U ug/kg	4,6-Dinitro-2-methylph+	1100U ug/kg	Napthalene	81 ug/kg
2-Nitrophenol	274U ug/kg	1,3-Dichlorobenzene	110U ug/kg	2-Methylnapthalene	58 ug/kg
NAPHTHALENE, 1-METHYL-	110U ug/kg	2,6-Dinitrotoluene	549U ug/kg	2-Chloronapthalene	82 ug/kg
Napthalene	110U ug/kg	N-Nitroso-di-n-Propyla+	110U ug/kg	3,3'-Dichlorobenzidine	NAP ug/kg
2-Methylnapthalene	110U ug/kg	4-Chlorophenyl-phenyle+	110UJ ug/kg	Benzidine	81 ug/kg
2-Chloronapthalene	110U ug/kg	BIS(20CHLOROISOPROPYL)+	1100UJ ug/kg	2-Methylphenol	81 ug/kg
3,3'-Dichlorobenzidine	137U ug/kg	Surrog: 2-Fluorobiphen+	100 ug/kg	1,2-Dichlorobenzene	61 ug/kg
Benzidine	137U ug/kg	2-Fluorophenol	92 ug/kg	o-Chlorophenol (2-Chlo-	85 ug/kg
2-Methylphenol	274U ug/kg	Terphenyl-d14	113 ug/kg	2,4,5-Trichlorophenol	76 ug/kg
1,2-Dichlorobenzene	110U ug/kg	Pyrene-d10	84 ug/kg	Nitrobenzene	83 ug/kg
o-Chlorophenol (2-Chlo-	110U ug/kg	1,2-DICHLORO BENZENE-D4	61 ug/kg	3-Nitroaniline	48 ug/kg
2,4,5-Trichlorophenol	110U ug/kg	Surrog: D5-Nitrobenzene	95 ug/kg	4-Nitroaniline	53 ug/kg
Nitrobenzene	110U ug/kg	Surrog: Phenol D5	94 ug/kg	4-Nitrophenol	80 ug/kg
3-Nitroaniline	274UJ ug/kg	D4-2-CHLOROPHENOL (SS)	94 ug/kg	Benzyl Alcohol	80 ug/kg
4-Nitroaniline	1100UJ ug/kg			4-Bromophenyl-phenylet+	95 ug/kg
4-Nitrophenol	274UJ ug/kg			2,4-Dimethylphenol	84 ug/kg
Benzyl Alcohol	110U ug/kg			4-Methylphenol	80 ug/kg
4-Bromophenyl-phenylet+	110U ug/kg			1,4-Dichlorobenzene	58 ug/kg
2,4-Dimethylphenol	110U ug/kg			4-Chloroaniline	24 ug/kg
4-Methylphenol	110U ug/kg			Phenol	88 ug/kg
1,4-Dichlorobenzene	110U ug/kg			Pyridine	NAP ug/kg
4-Chloroaniline	1100UJ ug/kg			bis(2-Chloroethyl)Ether	74 ug/kg
Phenol	110U ug/kg				



Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508112

Description: C08

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan		Sediment		B/N/Acid Scan		Sediment		B/N/Acid Scan		Sediment	
Matrix Spike #1	*** Continued ***	Result	Units	Matrix Spike #2	*** Continued ***	Result	Units	Matrix Spike #2	*** Continued ***	Result	Units
bis(2-Chloroethoxy)Met+		84	† Recov	Aniline		NAF	† Recov	Di-n-Octyl Phthalate		76	† Recov
BIS(2-ETHYLHEXYL) PHTH+		77	† Recov	Nitrosamine, Dimethyl-		NAF	† Recov	HEXACHLOROBENZENE		72	† Recov
Di-n-Octyl Phthalate		74	† Recov	Benzoic acid		16	† Recov	Anthracene		78	† Recov
HEXACHLOROBENZENE		92	† Recov	Hexachloroethane		37	† Recov	1,2,4-Trichlorobenzene		61	† Recov
Anthracene		97	† Recov	Hexachlorocyclopentadi+		REJ	† Recov	2,4-Dichlorophenol		81	† Recov
1,2,4-Trichlorobenzene		70	† Recov	Isophorone		83	† Recov	2,4-Dinitrotoluene		79	† Recov
2,4-Dichlorophenol		87	† Recov	Acenaphthene		72	† Recov	Hydrazine, 1,2-Dipheny+		NAF	† Recov
2,4-Dinitrotoluene		87	† Recov	Diethylphthalate		80	† Recov	Pyrene		64	† Recov
Hydrazine, 1,2-Dipheny-		NAF	† Recov	Di-n-Butylphthalate		134	† Recov	Dimethylphthalate		76	† Recov
Pyrene		83	† Recov	Phenanthrene		84	† Recov	Dibenzofuran		76	† Recov
Dimethylphthalate		84	† Recov	Butylbenzylphthalate		81	† Recov	Benzo(ghi)perylene		42	† Recov
Dibenzofuran		92	† Recov	N-Nitrosodiphenylamine		140	† Recov	Indeno(1,2,3-cd)pyrene		56	† Recov
Benzo(ghi)perylene		47	† Recov	Fluorene		80	† Recov	Benzo(b)fluoranthene		71	† Recov
Indeno(1,2,3-cd)pyrene		72	† Recov	Carbazole		NAF	† Recov	Fluoranthene		79	† Recov
Benzo(b)fluoranthene		95	† Recov	Hexachlorobutadiene		74	† Recov	Benzo(k)fluoranthene		71	† Recov
Fluoranthene		100	† Recov	Pentachlorophenol		63	† Recov	Acenaphthylene		69	† Recov
Benzo(k)fluoranthene		89	† Recov	2,4,6-Trichlorophenol		79	† Recov	Chrysene		76	† Recov
Acenaphthylene		87	† Recov	2-Nitroaniline		77	† Recov	Surrog: 2-Fluorobiphen+		79	† Recov
Chrysene		96	† Recov	2-Nitrophenol		81	† Recov	2-Fluorophenol		73	† Recov
Surrog: 2-Fluorobiphen+		88	† Recov	NAPHTHALENE, 1-METHYL-		NAF	† Recov	Retene		NAF	† Recov
2-Fluorophenol		78	† Recov	Naphthalene		69	† Recov	4,6-Dinitro-2-methylph+		89	† Recov
Retene		NAF	† Recov	2-Methylnaphthalene		52	† Recov	1,3-Dichlorobenzene		53	† Recov
4,6-Dinitro-2-methylph+		95	† Recov	2-Chloronaphthalene		67	† Recov	2,6-Dinitrotoluene		82	† Recov
1,3-Dichlorobenzene		53	† Recov	3,3'-Dichlorobenzidine		NAF	† Recov	N-Nitroso-di-n-Propyla+		70	† Recov
2,6-Dinitrotoluene		91	† Recov	Benzidine		NAF	† Recov	Terphenyl-di4		88	† Recov
N-Nitroso-di-n-Propyla+		74	† Recov	2-Methylphenol		74	† Recov	Pyrene-d10		62	† Recov
Terphenyl-di4		91	† Recov	1,2-Dichlorobenzene		58	† Recov	1,2-DICHLOROBENZENE-D4		50	† Recov
Pyrene-d10		78	† Recov	o-Chlorophenol (2-Chlo+		76	† Recov	Surrog: D5-Nitrobenzene		76	† Recov
1,2-DICHLOROBENZENE-D4		57	† Recov	2,4,5-Trichlorophenol		77	† Recov	Surrog: Phenol D5		75	† Recov
Surrog: D5-Nitrobenzene		81	† Recov	Nitrobenzene		78	† Recov	4-Chlorophenyl-phenyle+		76	† Recov
Surrog: Phenol D5		79	† Recov	3-Nitroaniline		37	† Recov	BIS(20CHLOROISOPROPYL)+		74	† Recov
4-Chlorophenyl-phenyle+		83	† Recov	4-Nitroaniline		48	† Recov	D4-2-CHLOROPHENOL (SS)		73	† Recov
BIS(20CHLOROISOPROPYL)+		74	† Recov	4-Nitrophenol		83	† Recov				
D4-2-CHLOROPHENOL (SS)		81	† Recov	Benzyl Alcohol		74	† Recov				
				4-Bromophenyl-phenylet+		87	† Recov	Tent Ident - B/N/Aci			Sediment
				2,4-Dimethylphenol		78	† Recov				Result Units
				4-Methylphenol		77	† Recov				
				1,4-Dichlorobenzene		55	† Recov	Decanoic Acid, Hexa-		508NJ*	ug/kg
				4-Chloroaniline		12	† Recov	CHOLESTEROL		349NJ*	ug/kg
				Phenol		80	† Recov	Decanoic Acid, Methyl +		305NJ*	ug/kg
				Pyridine		NAF	† Recov	PHTOL		160NJ*	ug/kg
				bis(2-Chloroethyl)Ether		71	† Recov	9-OCTADECENOIC ACID, M+		263NJ*	ug/kg
				bis(2-Chloroethoxy)Met+		79	† Recov	9-HEXADECENOIC ACID		529NJ*	ug/kg
				BIS(2-ETHYLHEXYL) PHTH+		79	† Recov	UNKNOWN COMPOUND 1		364NJ*	ug/kg

(Continued on next page)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508112

Description: C08

Source: Sediment (General)

Begin Date: 93/12/02

Tent Ident - B/N/Aci	Sediment	Result	Units
*** Continued ***	***		
UNKNOWN COMPOUND 2		194NJ*	ug/kg
UNKNOWN COMPOUND 3		162NJ*	ug/kg
UNKNOWN COMPOUND 4		219NJ*	ug/kg
UNKNOWN COMPOUND 5		227NJ*	ug/kg
2-Pentene, 2,3-dimethyl		765NJ*	ug/kg
9-HEXADECENOIC ACID, M+		420NJ*	ug/kg

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508117

Description: C13

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued	Sediment Result	Units
Benzo(a)pyrene	108U	ug/kg	Pyridine	108U	ug/kg	Decanoic Acid, Methyl +	93.1NJ*	ug/kg
2,4-Dinitrophenol	1080U	ug/kg	bis(2-Chloroethyl)Ether	108U	ug/kg	UNKNOWN HYDROCARBON 1	67.5NJ*	ug/kg
Dibenzo(a,h)anthracene	108U	ug/kg	bis(2-Chloroethoxy)Met+	108U	ug/kg	UNKNOWN COMPOUND 1	98.2NJ*	ug/kg
Benzo(a)anthracene	108U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	108U	ug/kg	UNKNOWN COMPOUND 2	121NJ*	ug/kg
4-Chloro-3-Methylphenol	108U	ug/kg	Di-n-Octyl Phthalate	108U	ug/kg	UNKNOWN COMPOUND 3	119NJ*	ug/kg
Aniline	108U	ug/kg	HEXACHLORO BENZENE	108U	ug/kg	UNKNOWN COMPOUND 4	96.8NJ*	ug/kg
Nitrosamine, Dimethyl-Benzoic acid	108UJ	ug/kg	Anthracene	108U	ug/kg	UNKNOWN COMPOUND 5	407NJ*	ug/kg
Hexachloroethane	108U	ug/kg	1,2,4-Trichlorobenzene	108UJ	ug/kg	UNKNOWN COMPOUND 6	141NJ*	ug/kg
Hexachlorocyclopentadi+	541UJ	ug/kg	2,4-Dichlorophenol	108UJ	ug/kg	10-OCTADECENOIC ACID, +	102NJ*	ug/kg
Isophorone	108U	ug/kg	2,4-Dinitrotoluene	541U	ug/kg			
Acenaphthene	108U	ug/kg	Hydrazine, 1,2-Dipheny+	108UJ	ug/kg			
Diethylphthalate	108U	ug/kg	Pyrene	108U	ug/kg			
Di-n-Butylphthalate	108U	ug/kg	Dimethylphthalate	2710	ug/kg			
Phenanthrene	108U	ug/kg	Dibenzofuran	108U	ug/kg			
Butylbenzylphthalate	108U	ug/kg	Benzo(ghi)perylene	108U	ug/kg			
N-Nitrosodiphenylamine	108U	ug/kg	Indeno(1,2,3-cd)pyrene	108U	ug/kg			
Fluorene	108U	ug/kg	Benzo(b)fluoranthene	108U	ug/kg			
Carbazole	108U	ug/kg	Fluoranthene	108U	ug/kg			
Hexachlorobutadiene	108U	ug/kg	Benzo(k)fluoranthene	108U	ug/kg			
Pentachlorophenol	541UJ	ug/kg	Acenaphthylene	108U	ug/kg			
2,4,6-Trichlorophenol	108U	ug/kg	Chrysene	108U	ug/kg			
2-Nitroaniline	271U	ug/kg	Retene	88.0U	ug/kg			
2-Nitrophenol	271U	ug/kg	4,6-Dinitro-2-methylph+	1080U	ug/kg			
NAPHTHALENE, 1-METHYL-	108U	ug/kg	1,3-Dichlorobenzene	108U	ug/kg			
Naphthalene	108U	ug/kg	2,6-Dinitrotoluene	541U	ug/kg			
2-Methylnaphthalene	108U	ug/kg	N-Nitroso-di-n-Propyla+	108U	ug/kg			
2-Chloronaphthalene	108U	ug/kg	4-Chlorophenyl-phenyle+	108U	ug/kg			
3,3'-Dichlorobenzidine	135U	ug/kg	BIS(20CHLOROISOPROPYL)+	108UJ	ug/kg			
Benzidine	135U	ug/kg	Surrog: 2-Fluorobiphen+	96	ug/kg			
2-Methylphenol	271U	ug/kg	2-Fluorophenol	89	ug/kg			
1,2-Dichlorobenzene	108U	ug/kg	Terphenyl-d14	106	ug/kg			
o-Chlorophenol (2-Chlo+	108U	ug/kg	Pyrene-d10	92	ug/kg			
2,4,5-Trichlorophenol	108U	ug/kg	1,2-DICHLORO BENZENE-D4	74	ug/kg			
Nitrobenzene	108U	ug/kg	Surrog: D5-Nitrobenzene	93	ug/kg			
3-Nitroaniline	271U	ug/kg	Surrog: Phenol D5	89	ug/kg			
4-Nitroaniline	108U	ug/kg	D4-2-CHLOROPHENOL (SS)	92	ug/kg			
4-Nitrophenol	271U	ug/kg						
Benzyl Alcohol	108U	ug/kg						
4-Bromophenyl-phenylet+	108U	ug/kg						
2,4-Dimethylphenol	108U	ug/kg						
4-Methylphenol	108U	ug/kg						
1,4-Dichlorobenzene	108U	ug/kg						
4-Chloroaniline	108U	ug/kg						
Phenol	108U	ug/kg						

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508118

Description: C14

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued	Sediment Result	Units
Benzo(a)pyrene	108U	ug/kg	Pyridine	108U	ug/kg	UNKNOWN COMPOUND 2	49.8NJ*	ug/kg
2,4-Dinitrophenol	1080U	ug/kg	bis(2-Chloroethyl)Ether	108U	ug/kg	UNKNOWN COMPOUND 3	58.9NJ*	ug/kg
Dibenzo(a,h)anthracene	108U	ug/kg	bis(2-Chloroethoxy)Met+	108U	ug/kg	UNKNOWN COMPOUND 4	40.8NJ*	ug/kg
Benzo(a)anthracene	108U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	108U	ug/kg	UNKNOWN COMPOUND 5	63.2NJ*	ug/kg
4-Chloro-3-Methylphenol	108U	ug/kg	Di-n-Octyl Phthalate	108U	ug/kg	UNKNOWN COMPOUND 6	41.6NJ*	ug/kg
Aniline	108U	ug/kg	HEXACHLORO BENZENE	108U	ug/kg	UNKNOWN COMPOUND 7	79.5NJ*	ug/kg
Nitrosamine, Dimethyl-Benzoic acid	108UJ	ug/kg	Anthracene	108U	ug/kg	10-OCTADECENOIC ACID, +	58.9NJ*	ug/kg
Hexachloroethane	108U	ug/kg	1,2,4-Trichlorobenzene	108UJ	ug/kg	9-HEXADECENOIC ACID, M+	84.0NJ*	ug/kg
Hexachlorocyclopentadi+	540UJ	ug/kg	2,4-Dichlorophenol	108UJ	ug/kg			
Isophorone	108U	ug/kg	2,4-Dinitrotoluene	540U	ug/kg			
Acenaphthene	108U	ug/kg	Hydrazine, 1,2-Dipheny+	108UJ	ug/kg			
Diethylphthalate	108U	ug/kg	Pyrene	108U	ug/kg			
Di-n-Butylphthalate	108U	ug/kg	Dimethylphthalate	270U	ug/kg			
Phenanthrene	108U	ug/kg	Dibenzofuran	108U	ug/kg			
Butylbenzylphthalate	108U	ug/kg	Benzo(ghi)perylene	108U	ug/kg			
N-Nitrosodiphenylamine	108U	ug/kg	Indeno(1,2,3-cd)pyrene	108U	ug/kg			
Fluorene	108U	ug/kg	Benzo(b)fluoranthene	108U	ug/kg			
Carbazole	108U	ug/kg	Fluoranthene	108U	ug/kg			
Hexachlorobutadiene	108U	ug/kg	Benzo(k)fluoranthene	108U	ug/kg			
Pentachlorophenol	540UJ	ug/kg	Acenaphthylene	108U	ug/kg			
2,4,6-Trichlorophenol	108U	ug/kg	Chrysene	108U	ug/kg			
2-Nitroaniline	270U	ug/kg	Retene	87.8U	ug/kg			
2-Nitrophenol	270U	ug/kg	4,6-Dinitro-2-methylph+	1080U	ug/kg			
NAPHTHALENE, 1-METHYL-	108U	ug/kg	1,3-Dichlorobenzene	108U	ug/kg			
Naphthalene	108U	ug/kg	2,6-Dinitrotoluene	540U	ug/kg			
2-Methylnaphthalene	108U	ug/kg	N-Nitroso-di-n-Propyla+	108U	ug/kg			
2-Chloronaphthalene	108U	ug/kg	4-Chlorophenyl-phenyle+	108U	ug/kg			
3,3'-Dichlorobenzidine	135U	ug/kg	BIS(20CHLOROISOPROPYL)+	108UJ	ug/kg			
Benzidine	135U	ug/kg	Surrog: 2-Fluorobiphen+	78	ug/kg			
2-Methylphenol	270U	ug/kg	2-Fluorophenol	75	ug/kg			
1,2-Dichlorobenzene	108U	ug/kg	Terphenyl-d14	87	ug/kg			
o-Chlorophenol (2-Chlo+	108U	ug/kg	Pyrene-d10	66	ug/kg			
2,4,5-Trichlorophenol	108U	ug/kg	1,2-DICHLORO BENZENE-D4	57	ug/kg			
Nitrobenzene	108U	ug/kg	Surrog: D5-Nitrobenzene	74	ug/kg			
3-Nitroaniline	270U	ug/kg	Surrog: Phenol D5	75	ug/kg			
4-Nitroaniline	108U	ug/kg	D4-2-CHLOROPHENOL (SS)	75	ug/kg			
4-Nitrophenol	270U	ug/kg						
Benzyl Alcohol	108U	ug/kg						
4-Bromophenyl-phenylet+	108U	ug/kg						
2,4-Dimethylphenol	108U	ug/kg						
4-Methylphenol	108U	ug/kg						
1,4-Dichlorobenzene	108U	ug/kg						
4-Chloroaniline	108U	ug/kg						
Phenol	108U	ug/kg						

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508119

Description: C15

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan	Sediment Result	Units	Tent Ident	B/N/Aci	Sediment Result	Units
Benzo(a)pyrene	105U	ug/kg	Pyridine	105U	ug/kg	CYCLOHEXASILOXANE, DOD+		346NJ*	ug/kg
2,4-Dinitrophenol	1050U	ug/kg	bis(2-Chloroethyl)Ether	105U	ug/kg	2-CYCLOHEXEN-1-ONE, 3,+		55.0NJ*	ug/kg
Dibenzo(a,h)anthracene	105U	ug/kg	bis(2-Chloroethoxy)Met+	105U	ug/kg	Trisiloxane, 1,1,1,5,5,+		109NJ*	ug/kg
Benzo(a)anthracene	105U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	105U	ug/kg	2-Pentene, 3,4-dimethyl+		388NJ*	ug/kg
4-Chloro-3-Methylphenol	105U	ug/kg	Di-n-Octyl Phthalate	105U	ug/kg	UNKNOWN HYDROCARBON 1		54.1NJ*	ug/kg
Aniline	105U	ug/kg	HEXACHLORO BENZENE	105U	ug/kg	UNKNOWN COMPOUND 1		57.5NJ*	ug/kg
Nitrosamine, Dimethyl-	105U	ug/kg	Anthracene	105U	ug/kg	UNKNOWN COMPOUND 2		128NJ*	ug/kg
Benzoic acid	1050U	ug/kg	1,2,4-Trichlorobenzene	1050U	ug/kg	UNKNOWN COMPOUND 3		102NJ*	ug/kg
Hexachloroethane	105U	ug/kg	2,4-Dichlorophenol	1050U	ug/kg	9-HEXADECENOIC ACID, M+		59.7NJ*	ug/kg
Hexachlorocyclopentadi+	5240U	ug/kg	2,4-Dinitrotoluene	524U	ug/kg				
Isophorone	105U	ug/kg	Hydrazine, 1,2-Dipheny+	1050U	ug/kg				
Acenaphthene	105U	ug/kg	Pyrene	105U	ug/kg				
Diethylphthalate	105U	ug/kg	Dimethylphthalate	262U	ug/kg				
Di-n-Butylphthalate	1050U	ug/kg	Dibenzofuran	105U	ug/kg				
Phenanthrene	105U	ug/kg	Benzo(ghi)perylene	105U	ug/kg				
Butylbenzylphthalate	105U	ug/kg	Indeno(1,2,3-cd)pyrene	105U	ug/kg				
N-Nitrosodiphenylamine	105U	ug/kg	Benzo(b)fluoranthene	105U	ug/kg				
Fluorene	105U	ug/kg	Fluoranthene	105U	ug/kg				
Carbazole	105U	ug/kg	Benzo(k)fluoranthene	105U	ug/kg				
Hexachlorobutadiene	105U	ug/kg	Acenaphthylene	105U	ug/kg				
Pentachlorophenol	5240U	ug/kg	Chrysaene	105U	ug/kg				
2,4,6-Trichlorophenol	105U	ug/kg	Retene	85.2U	ug/kg				
2-Nitroaniline	262U	ug/kg	4,6-Dinitro-2-methylph+	1050U	ug/kg				
2-Nitrophenol	262U	ug/kg	1,3-Dichlorobenzene	105U	ug/kg				
NAPHTHALENE, 1-METHYL-	105U	ug/kg	2,6-Dinitrotoluene	524U	ug/kg				
Napthalene	105U	ug/kg	N-Nitroso-di-n-Propyla+	105U	ug/kg				
2-Methylnapthalene	105U	ug/kg	4-Chlorophenyl-phenyle+	105U	ug/kg				
2-Chloronapthalene	105U	ug/kg	BIS(20CHLOROISOPROPYL)+	1050U	ug/kg				
3,3'-Dichlorobenzidine	131U	ug/kg	Surrog: 2-Fluorobiphen+	94	ug/kg				
Benzdine	131U	ug/kg	2-Fluorophenol	87	ug/kg				
2-Methylphenol	262U	ug/kg	Terphenyl-d14	96	ug/kg				
1,2-Dichlorobenzene	105U	ug/kg	Pyrene-d10	88	ug/kg				
o-Chlorophenol (2-Chlo-	105U	ug/kg	1,2-DICHLOROBENZENE-D4	78	ug/kg				
2,4,5-Trichlorophenol	105U	ug/kg	Surrog: D5-Nitrobenzene	91	ug/kg				
Nitrobenzene	262U	ug/kg	Surrog: Phenol D5	87	ug/kg				
3-Nitroaniline	105U	ug/kg	D4-2-CHLOROPHENOL (SS)	90	ug/kg				
4-Nitroaniline	105U	ug/kg							
4-Nitrophenol	262U	ug/kg							
Benzyl Alcohol	105U	ug/kg							
4-Bromophenyl-phenylet+	105U	ug/kg							
2,4-Dimethylphenol	105U	ug/kg							
4-Methylphenol	105U	ug/kg							
1,4-Dichlorobenzene	105U	ug/kg							
4-Chloroaniline	105U	ug/kg							
Phenol	105U	ug/kg							

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508120

Description: C16

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan	Sediment Result	Units	Tent Ident	B/N/Aci	Sediment Result	Units
Benzo(a)pyrene	100U	ug/kg	Pyridine	100U	ug/kg	HEXANEDIOIC ACID, BIS(+)		201NJ*	ug/kg
2,4-Dinitrophenol	1000U	ug/kg	bis(2-Chloroethyl)Ether	100U	ug/kg	CYCLOHEXASILOXANE, DOD+		491NJ*	ug/kg
Dibenzo(a,h)anthracene	100U	ug/kg	bis(2-Chloroethoxy)Met+	100U	ug/kg	UNKNOWN COMPOUND 1		56.8NJ*	ug/kg
Benzo(a)anthracene	100U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	100U	ug/kg	UNKNOWN COMPOUND 2		74.7NJ*	ug/kg
4-Chloro-3-Methylphenol	100U	ug/kg	Di-n-Octyl Phthalate	100U	ug/kg	UNKNOWN COMPOUND 3		119NJ*	ug/kg
Aniline	100U	ug/kg	HEXACHLORO BENZENE	100U	ug/kg	UNKNOWN COMPOUND 4		80.7NJ*	ug/kg
Nitrosamine, Dimethyl-	100U	ug/kg	Anthracene	100U	ug/kg	10-OCTADECENOIC ACID, +		61.7NJ*	ug/kg
Benzoic acid	1000U	ug/kg	1,2,4-Trichlorobenzene	1000U	ug/kg	9-HEXADECENOIC ACID, M+		99.2NJ*	ug/kg
Hexachloroethane	100U	ug/kg	2,4-Dichlorophenol	1000U	ug/kg				
Hexachlorocyclopentadi+	5020U	ug/kg	2,4-Dinitrotoluene	502U	ug/kg				
Isophorone	100U	ug/kg	Hydrazine, 1,2-Dipheny+	1000U	ug/kg				
Acenaphthene	100U	ug/kg	Pyrene	100U	ug/kg				
Diethylphthalate	100U	ug/kg	Dimethylphthalate	251U	ug/kg				
Di-n-Butylphthalate	1190U	ug/kg	Dibenzofuran	100U	ug/kg				
Phenanthrene	100U	ug/kg	Benzo(ghi)perylene	100U	ug/kg				
Butylbenzylphthalate	100U	ug/kg	Indeno(1,2,3-cd)pyrene	100U	ug/kg				
N-Nitrosodiphenylamine	100U	ug/kg	Benzo(b)fluoranthene	100U	ug/kg				
Fluorene	100U	ug/kg	Fluoranthene	100U	ug/kg				
Carbazole	100U	ug/kg	Benzo(k)fluoranthene	100U	ug/kg				
Hexachlorobutadiene	100U	ug/kg	Acenaphthylene	100U	ug/kg				
Pentachlorophenol	5020U	ug/kg	Chrysaene	100U	ug/kg				
2,4,6-Trichlorophenol	100U	ug/kg	Retene	81.6U	ug/kg				
2-Nitroaniline	251U	ug/kg	4,6-Dinitro-2-methylph+	1000U	ug/kg				
2-Nitrophenol	251U	ug/kg	1,3-Dichlorobenzene	100U	ug/kg				
NAPHTHALENE, 1-METHYL-	100U	ug/kg	2,6-Dinitrotoluene	502U	ug/kg				
Napthalene	100U	ug/kg	N-Nitroso-di-n-Propyla+	100U	ug/kg				
2-Methylnapthalene	100U	ug/kg	4-Chlorophenyl-phenyle+	100U	ug/kg				
2-Chloronapthalene	100U	ug/kg	BIS(20CHLOROISOPROPYL)+	1000U	ug/kg				
3,3'-Dichlorobenzidine	125U	ug/kg	Surrog: 2-Fluorobiphen+	88	ug/kg				
Benzdine	125U	ug/kg	2-Fluorophenol	89	ug/kg				
2-Methylphenol	251U	ug/kg	Terphenyl-d14	101	ug/kg				
1,2-Dichlorobenzene	100U	ug/kg	Pyrene-d10	71	ug/kg				
o-Chlorophenol (2-Chlo-	100U	ug/kg	1,2-DICHLOROBENZENE-D4	61	ug/kg				
2,4,5-Trichlorophenol	100U	ug/kg	Surrog: D5-Nitrobenzene	87	ug/kg				
Nitrobenzene	251U	ug/kg	Surrog: Phenol D5	90	ug/kg				
3-Nitroaniline	100U	ug/kg	D4-2-CHLOROPHENOL (SS)	88	ug/kg				
4-Nitroaniline	100U	ug/kg							
4-Nitrophenol	251U	ug/kg							
Benzyl Alcohol	100U	ug/kg							
4-Bromophenyl-phenylet+	100U	ug/kg							
2,4-Dimethylphenol	100U	ug/kg							
4-Methylphenol	100U	ug/kg							
1,4-Dichlorobenzene	100U	ug/kg							
4-Chloroaniline	100U	ug/kg							
Phenol	100U	ug/kg							

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508122

Description: S1

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	26.5J*	ug/kg	Pyridine	115U	ug/kg	HEXANEDIOIC ACID, BIS(+	805NJ*	ug/kg
2,4-Dinitrophenol	1150U	ug/kg	bis(2-Chloroethyl)Ether	115U	ug/kg	CYCLOHEXASILOXANE, DOD+	395NJ*	ug/kg
Dibenzo(a,h)anthracene	115U	ug/kg	bis(2-Chloroethoxy)Met+	115U	ug/kg	2-CYCLOHEXEN-1-ONE, 3+	198NJ*	ug/kg
Benzo(a)anthracene	115U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	115U	ug/kg	9-HEXADECENOIC ACID	165NJ*	ug/kg
4-Chloro-3-Methylphenol	115U	ug/kg	Di-n-Octyl Phtthalate	115U	ug/kg	UNKNOWN COMPOUND 1	219NJ*	ug/kg
Aniline	115U	ug/kg	Anthracene	115U	ug/kg	UNKNOWN COMPOUND 2	147NJ*	ug/kg
Nitrosamine, Dimethyl-	115UJ	ug/kg	Hexachlorobenzene	115U	ug/kg	UNKNOWN COMPOUND 3	170NJ*	ug/kg
Benzoic acid	115UJ	ug/kg	1,2,4-Trichlorobenzene	115UJ	ug/kg	9-HEXADECENOIC ACID, M+	147NJ*	ug/kg
Hexachloroethane	115U	ug/kg	2,4-Dichlorophenol	115UJ	ug/kg			
Hexachlorocyclopentadi-	576UJ	ug/kg	2,4-Dinitrotoluene	576U	ug/kg			
Isophorone	115U	ug/kg	Hydrazine, 1,2-Dipheny+	115UJ	ug/kg			
Acenaphthene	115U	ug/kg	Pyrene	70.6J*	ug/kg			
Diethylphtthalate	115U	ug/kg	Dimethylphtthalate	288U	ug/kg			
Di-n-Butylphtthalate	272UJ	ug/kg	Dibenzofuran	115U	ug/kg			
Phenanthrene	115U	ug/kg	Benzo(ghi)perylene	115U	ug/kg			
Butylbenzylphtthalate	115U	ug/kg	Indeno(1,2,3-cd)pyrene	20.8J*	ug/kg			
N-Nitrosodiphenylamine	115U	ug/kg	Benzo(b)fluoranthene	50.5J*	ug/kg			
Fluorene	115U	ug/kg	Fluoranthene	64.6J*	ug/kg			
Carbazole	115U	ug/kg	Benzo(k)fluoranthene	17.2J*	ug/kg			
Hexachlorobutadiene	115U	ug/kg	Acenaphthylene	115U	ug/kg			
Pentachlorophenol	576UJ	ug/kg	Chrysene	115U	ug/kg			
2,4,6-Trichlorophenol	115U	ug/kg	Retene	93.6U	ug/kg			
2-Nitroaniline	288U	ug/kg	4,6-Dinitro-2-methylph+	1150U	ug/kg			
2-Nitrophenol	288U	ug/kg	1,3-Dichlorobenzene	115U	ug/kg			
NAPHTHALENE, 1-METHYL-	115U	ug/kg	2,6-Dinitrotoluene	576U	ug/kg			
Naphtthalene	115U	ug/kg	N-Nitroso-di-n-Propyla+	115U	ug/kg			
2-Methylnaphtthalene	115U	ug/kg	4-Chlorophenyl-phenyle+	115U	ug/kg			
2-Chloronaphtthalene	115U	ug/kg	BIS(20CHLOROISOPROPYL)+	115UJ	ug/kg			
3,3'-Dichlorobenzididine	144U	ug/kg	Surrog: 2-Fluorobiphen+	97	% Recov			
Benzdine	144U	ug/kg	2-Fluorophenol	92	% Recov			
2-Methylphenol	288U	ug/kg	Terphenyl-d14	102	% Recov			
1,2-Dichlorobenzene	115U	ug/kg	Pyrene-d10	93	% Recov			
o-Chlorophenol (2-Chlo-	115U	ug/kg	1,2-DICHLOROBEZENE-D4	74	% Recov			
2,4,5-Trichlorophenol	115U	ug/kg	Surrog: D5-Nitrobenzene	90	% Recov			
Nitrobenzene	115U	ug/kg	Surrog: Phenol D5	90	% Recov			
3-Nitroaniline	288U	ug/kg	D4-2-CHLOROPHENOL (SS)	92	% Recov			
4-Nitroaniline	115U	ug/kg						
4-Nitrophenol	288U	ug/kg						
Benzyl Alcohol	115U	ug/kg						
4-Bromophenyl-phenylet+	115U	ug/kg						
2,4-Dimethylphenol	115U	ug/kg						
4-Methylphenol	115U	ug/kg						
1,4-Dichlorobenzene	115U	ug/kg						
4-Chloroaniline	115U	ug/kg						
Phenol	115U	ug/kg						

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508123

Description: S2

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	108U	ug/kg	Pyridine	108U	ug/kg	CYCLOHEXASILOXANE, DOD+	474NJ*	ug/kg
2,4-Dinitrophenol	1080U	ug/kg	bis(2-Chloroethyl)Ether	108U	ug/kg	9-HEXADECENOIC ACID	128NJ*	ug/kg
Dibenzo(a,h)anthracene	108U	ug/kg	bis(2-Chloroethoxy)Met+	108U	ug/kg	2-Pentene, 3,4-dimethy+	419NJ*	ug/kg
Benzo(a)anthracene	108U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	14200UJ	ug/kg	UNKNOWN COMPOUND 1	593NJ*	ug/kg
4-Chloro-3-Methylphenol	108U	ug/kg	Di-n-Octyl Phtthalate	108U	ug/kg	UNKNOWN COMPOUND 2	108NJ*	ug/kg
Aniline	108U	ug/kg	Hexachlorobenzene	108U	ug/kg	UNKNOWN COMPOUND 3	128NJ*	ug/kg
Nitrosamine, Dimethyl-	108U	ug/kg	Anthracene	108U	ug/kg	UNKNOWN COMPOUND 4	115NJ*	ug/kg
Benzoic acid	108UJ	ug/kg	1,2,4-Trichlorobenzene	108UJ	ug/kg	UNKNOWN COMPOUND 5	92.4NJ*	ug/kg
Hexachloroethane	108U	ug/kg	2,4-Dichlorophenol	108UJ	ug/kg	1,2-BENZENEDICARBOXYLI+	102NJ*	ug/kg
Hexachlorocyclopentadi-	542UJ	ug/kg	2,4-Dinitrotoluene	542U	ug/kg	9-HEXADECENOIC ACID, M+	95.8NJ*	ug/kg
Isophorone	108U	ug/kg	Hydrazine, 1,2-Dipheny+	108UJ	ug/kg			
Acenaphthene	108U	ug/kg	Pyrene	108U	ug/kg			
Diethylphtthalate	108U	ug/kg	Dimethylphtthalate	271U	ug/kg			
Di-n-Butylphtthalate	701UJ	ug/kg	Dibenzofuran	108U	ug/kg			
Phenanthrene	108U	ug/kg	Benzo(ghi)perylene	108U	ug/kg			
Butylbenzylphtthalate	108U	ug/kg	Indeno(1,2,3-cd)pyrene	108U	ug/kg			
N-Nitrosodiphenylamine	108U	ug/kg	Benzo(b)fluoranthene	108U	ug/kg			
Fluorene	108U	ug/kg	Fluoranthene	108U	ug/kg			
Carbazole	108U	ug/kg	Benzo(k)fluoranthene	108U	ug/kg			
Hexachlorobutadiene	108U	ug/kg	Acenaphthylene	108U	ug/kg			
Pentachlorophenol	542UJ	ug/kg	Chrysene	108U	ug/kg			
2,4,6-Trichlorophenol	108U	ug/kg	Retene	88.0U	ug/kg			
2-Nitroaniline	271U	ug/kg	4,6-Dinitro-2-methylph+	1080U	ug/kg			
2-Nitrophenol	271U	ug/kg	1,3-Dichlorobenzene	108U	ug/kg			
NAPHTHALENE, 1-METHYL-	108U	ug/kg	2,6-Dinitrotoluene	542U	ug/kg			
Naphtthalene	108U	ug/kg	N-Nitroso-di-n-Propyla+	108U	ug/kg			
2-Methylnaphtthalene	108U	ug/kg	4-Chlorophenyl-phenyle+	108U	ug/kg			
2-Chloronaphtthalene	108U	ug/kg	BIS(20CHLOROISOPROPYL)+	108UJ	ug/kg			
3,3'-Dichlorobenzididine	135U	ug/kg	Surrog: 2-Fluorobiphen+	95	% Recov			
Benzdine	135U	ug/kg	2-Fluorophenol	89	% Recov			
2-Methylphenol	271U	ug/kg	Terphenyl-d14	100	% Recov			
1,2-Dichlorobenzene	108U	ug/kg	Pyrene-d10	84	% Recov			
o-Chlorophenol (2-Chlo-	108U	ug/kg	1,2-DICHLOROBEZENE-D4	72	% Recov			
2,4,5-Trichlorophenol	108U	ug/kg	Surrog: D5-Nitrobenzene	90	% Recov			
Nitrobenzene	108U	ug/kg	Surrog: Phenol D5	88	% Recov			
3-Nitroaniline	271U	ug/kg	D4-2-CHLOROPHENOL (SS)	90	% Recov			
4-Nitroaniline	108U	ug/kg						
4-Nitrophenol	271U	ug/kg						
Benzyl Alcohol	108U	ug/kg						
4-Bromophenyl-phenylet+	108U	ug/kg						
2,4-Dimethylphenol	108U	ug/kg						
4-Methylphenol	108U	ug/kg						
1,4-Dichlorobenzene	108U	ug/kg						
4-Chloroaniline	108U	ug/kg						
Phenol	108U	ug/kg						

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508124

Description: S3

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	103U	ug/kg	Pyridine	103U	ug/kg	CYCLOHEXASILOXANE, DOD*	522NJ*	ug/kg
2,4-Dinitrophenol	1030U	ug/kg	bis(2-Chloroethyl)Ether	103U	ug/kg	STIGMAST-4-EN-3-ONE	194NJ*	ug/kg
Dibenzo(a,h)anthracene	103U	ug/kg	bis(2-Chloroethoxy)Met+	103U	ug/kg	UNKNOWN HYDROCARBON 1	108NJ*	ug/kg
Benzo(a)anthracene	103U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	1560J	ug/kg	UNKNOWN COMPOUND 1	104NJ*	ug/kg
4-Chloro-3-Methylphenol	103U	ug/kg	Di-n-Octyl Phthalate	103U	ug/kg	UNKNOWN COMPOUND 2	140NJ*	ug/kg
Aniline	103U	ug/kg	HEXACHLORO BENZENE	103U	ug/kg	UNKNOWN COMPOUND 3	154NJ*	ug/kg
Nitrosamine, Dimethyl-	103U	ug/kg	Anthracene	103U	ug/kg	UNKNOWN COMPOUND 4	109NJ*	ug/kg
Benzoic acid	1030U	ug/kg	1,2,4-Trichlorobenzene	1030U	ug/kg	UNKNOWN COMPOUND 5	163NJ*	ug/kg
Hexachloroethane	103U	ug/kg	2,4-Dichlorophenol	1030U	ug/kg	UNKNOWN COMPOUND 6	111NJ*	ug/kg
Hexachlorocyclopentadi+	5170U	ug/kg	2,4-Dinitrotoluene	517U	ug/kg			
Isophorone	103U	ug/kg	Hydrazine, 1,2-Dipheny+	1030U	ug/kg			
Acenaphthene	103U	ug/kg	Pyrene	18.6J*	ug/kg			
Diethylphthalate	103U	ug/kg	Dimethylphthalate	259U	ug/kg			
Di-n-Butylphthalate	65.6U	ug/kg	Dibenzofuran	103U	ug/kg			
Phenanthrene	21.5J*	ug/kg	Benzo(ghi)perylene	103U	ug/kg			
Butylbenzylphthalate	103U	ug/kg	Indeno(1,2,3-cd)pyrene	103U	ug/kg			
N-Nitrosodiphenylamine	103U	ug/kg	Benzo(b)fluoranthene	103U	ug/kg			
Fluorene	103U	ug/kg	Fluoranthene	23.3J*	ug/kg			
Carbazole	103U	ug/kg	Benzo(k)fluoranthene	103U	ug/kg			
Hexachlorobutadiene	103U	ug/kg	Acenaphthylene	103U	ug/kg			
Pentachlorophenol	5170U	ug/kg	Chrysene	103U	ug/kg			
2,4,6-Trichlorophenol	103U	ug/kg	Retene	84.1U	ug/kg			
2-Nitroaniline	259U	ug/kg	4,6-Dinitro-2-methylph+	1030U	ug/kg			
2-Nitrophenol	259U	ug/kg	1,3-Dichlorobenzene	103U	ug/kg			
NAPHTHALENE, 1-METHYL-	103U	ug/kg	2,6-Dinitrotoluene	517U	ug/kg			
Naphthalene	103U	ug/kg	N-Nitroso-di-n-Propyla+	103U	ug/kg			
2-Methylnaphthalene	103U	ug/kg	4-Chlorophenyl-phenyle+	103U	ug/kg			
2-Chloronaphthalene	103U	ug/kg	BIS(20CHLOROISOPROPYL)+	1030U	ug/kg			
3,3'-Dichlorobenzidine	129U	ug/kg	Surrog: 2-Fluorobiphen+	98	% Recov			
Benidine	129U	ug/kg	2-Fluorophenol	92	% Recov			
2-Methylphenol	259U	ug/kg	Terphenyl-d14	110	% Recov			
1,2-Dichlorobenzene	103U	ug/kg	Pyrene-d10	79	% Recov			
o-Chlorophenol (2-Chlo+	103U	ug/kg	1,2-DICHLORO BENZENE-D4	63	% Recov			
2,4,5-Trichlorophenol	103U	ug/kg	Surrog: D5-Nitrobenzene	93	% Recov			
Nitrobenzene	103U	ug/kg	Surrog: Phenol D5	92	% Recov			
3-Nitroaniline	259U	ug/kg	D4-2-CHLOROPHENOL (SS)	91	% Recov			
4-Nitroaniline	103U	ug/kg						
4-Nitrophenol	259U	ug/kg						
Benzyl Alcohol	103U	ug/kg						
4-Bromophenyl-phenylet+	103U	ug/kg						
2,4-Dimethylphenol	103U	ug/kg						
4-Methylphenol	103U	ug/kg						
1,4-Dichlorobenzene	103U	ug/kg						
4-Chloroaniline	103U	ug/kg						
Phenol	103U	ug/kg						

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508125

Description: S4

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result	Units	B/N/Acid Scan *** Continued ***	Sediment Result	Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result	Units
Benzo(a)pyrene	107U	ug/kg	Pyridine	107U	ug/kg	CYCLOHEXASILOXANE, DOD*	570NJ*	ug/kg
2,4-Dinitrophenol	1070U	ug/kg	bis(2-Chloroethyl)Ether	107U	ug/kg	STIGMAST-4-EN-3-ONE	152NJ*	ug/kg
Dibenzo(a,h)anthracene	107U	ug/kg	bis(2-Chloroethoxy)Met+	107U	ug/kg	9-HEXADECENOIC ACID	167NJ*	ug/kg
Benzo(a)anthracene	107U	ug/kg	BIS(2-ETHYLHEXYL) PHTH+	32600U	ug/kg	Triailoxane, 1,1,1,5,5,5+	943NJ*	ug/kg
4-Chloro-3-Methylphenol	107U	ug/kg	Di-n-Octyl Phthalate	107U	ug/kg	UNKNOWN HYDROCARBON 1	138NJ*	ug/kg
Aniline	107U	ug/kg	HEXACHLORO BENZENE	107U	ug/kg	UNKNOWN COMPOUND 1	135NJ*	ug/kg
Nitrosamine, Dimethyl-	107U	ug/kg	Anthracene	107U	ug/kg	UNKNOWN COMPOUND 2	179NJ*	ug/kg
Benzoic acid	1070U	ug/kg	1,2,4-Trichlorobenzene	1070U	ug/kg	UNKNOWN COMPOUND 3	186NJ*	ug/kg
Hexachloroethane	107U	ug/kg	2,4-Dichlorophenol	1070U	ug/kg			
Hexachlorocyclopentadi+	5370U	ug/kg	2,4-Dinitrotoluene	537U	ug/kg			
Isophorone	107U	ug/kg	Hydrazine, 1,2-Dipheny+	1070U	ug/kg			
Acenaphthene	107U	ug/kg	Pyrene	107U	ug/kg			
Diethylphthalate	107U	ug/kg	Dimethylphthalate	269U	ug/kg			
Di-n-Butylphthalate	2630U	ug/kg	Dibenzofuran	107U	ug/kg			
Phenanthrene	107U	ug/kg	Benzo(ghi)perylene	107U	ug/kg			
Butylbenzylphthalate	107U	ug/kg	Indeno(1,2,3-cd)pyrene	107U	ug/kg			
N-Nitrosodiphenylamine	107U	ug/kg	Benzo(b)fluoranthene	107U	ug/kg			
Fluorene	107U	ug/kg	Fluoranthene	107U	ug/kg			
Carbazole	107U	ug/kg	Benzo(k)fluoranthene	107U	ug/kg			
Hexachlorobutadiene	107U	ug/kg	Acenaphthylene	107U	ug/kg			
Pentachlorophenol	5370U	ug/kg	Chrysene	107U	ug/kg			
2,4,6-Trichlorophenol	107U	ug/kg	Retene	87.3U	ug/kg			
2-Nitroaniline	269U	ug/kg	4,6-Dinitro-2-methylph+	1070U	ug/kg			
2-Nitrophenol	269U	ug/kg	1,3-Dichlorobenzene	107U	ug/kg			
NAPHTHALENE, 1-METHYL-	107U	ug/kg	2,6-Dinitrotoluene	537U	ug/kg			
Naphthalene	107U	ug/kg	N-Nitroso-di-n-Propyla+	107U	ug/kg			
2-Methylnaphthalene	107U	ug/kg	4-Chlorophenyl-phenyle+	107U	ug/kg			
2-Chloronaphthalene	107U	ug/kg	BIS(20CHLOROISOPROPYL)+	1070U	ug/kg			
3,3'-Dichlorobenzidine	134U	ug/kg	Surrog: 2-Fluorobiphen+	114	% Recov			
Benidine	134U	ug/kg	2-Fluorophenol	107	% Recov			
2-Methylphenol	269U	ug/kg	Terphenyl-d14	129	% Recov			
1,2-Dichlorobenzene	107U	ug/kg	Pyrene-d10	93	% Recov			
o-Chlorophenol (2-Chlo+	107U	ug/kg	1,2-DICHLORO BENZENE-D4	78	% Recov			
2,4,5-Trichlorophenol	107U	ug/kg	Surrog: D5-Nitrobenzene	110	% Recov			
Nitrobenzene	107U	ug/kg	Surrog: Phenol D5	108	% Recov			
3-Nitroaniline	269U	ug/kg	D4-2-CHLOROPHENOL (SS)	107	% Recov			
4-Nitroaniline	107U	ug/kg						
4-Nitrophenol	269U	ug/kg						
Benzyl Alcohol	107U	ug/kg						
4-Bromophenyl-phenylet+	107U	ug/kg						
2,4-Dimethylphenol	107U	ug/kg						
4-Methylphenol	107U	ug/kg						
1,4-Dichlorobenzene	107U	ug/kg						
4-Chloroaniline	107U	ug/kg						
Phenol	107U	ug/kg						

Project: DOE-932Y MUKILTEO SEDIMENTS  
Laboratory: Ecology, Manchester

Officer: JCC Account: D3100

Sample No: 93 508126

Description: S5

Source: Sediment (General)

Begin Date: 93/12/02

B/N/Acid Scan	Sediment Result Units	B/N/Acid Scan *** Continued ***	Sediment Result Units	Tent Ident - B/N/Aci *** Continued ***	Sediment Result Units
Benzo(a)pyrene	105U ug/kg	Pyridine	105U ug/kg	Cyclotetradecane	124NJ* ug/kg
2,4-Dinitrophenol	1050U ug/kg	bis(2-Chloroethyl)Ether	105U ug/kg	CYCLOHEXASILOXANE, DOD+	430NJ* ug/kg
Dibenzo(a,h)anthracene	105U ug/kg	bis(2-Chloroethoxy)Met+	105U ug/kg	Triailoxane, 1,1,1,5,5,5+	124NJ* ug/kg
Benzo(a)anthracene	105U ug/kg	BIS(2-ETHYLHEXYL) PHTH+	105U ug/kg	UNKNOWN COMPOUND 1	86.2NJ* ug/kg
4-Chloro-3-Methylphenol	105U ug/kg	Di-n-Octyl Phthalate	105U ug/kg	UNKNOWN COMPOUND 2	134NJ* ug/kg
Aniline	105U ug/kg	HEXACHLOROENZENE	105U ug/kg	UNKNOWN COMPOUND 3	118NJ* ug/kg
Nitrosamine, Dimethyl-	105U ug/kg	Anthracene	105U ug/kg	10-OCTADECENOIC ACID, +	95.6NJ* ug/kg
Benzoic acid	105UJ ug/kg	1,2,4-Trichlorobenzene	105UJ ug/kg	9-HEXADECENOIC ACID, M+	103NJ* ug/kg
Hexachloroethane	105U ug/kg	2,4-Dichlorophenol	105UJ ug/kg		
Hexachlorocyclopentadi+	524UJ ug/kg	2,4-Dinitrotoluene	524U ug/kg		
Isophorone	105U ug/kg	Hydrazine, 1,2-Dipheny+	105UJ ug/kg		
Acenaphthene	105U ug/kg	Pyrene	42.3J* ug/kg		
Diethylphthalate	105U ug/kg	Dimethylphthalate	262U ug/kg		
Di-n-Butylphthalate	154UJ ug/kg	Dibenzofuran	105U ug/kg		
Phenanthrene	25.3J* ug/kg	Benzo(ghi)perylene	105U ug/kg		
Butylbenzylphthalate	105U ug/kg	Indeno(1,2,3-cd)pyrene	105U ug/kg		
N-Nitrosodiphenylamine	105U ug/kg	Benzo(b)fluoranthene	23.4J* ug/kg		
Fluorene	105U ug/kg	Fluoranthene	50.4J* ug/kg		
Carbazole	105U ug/kg	Benzo(k)fluoranthene	105U ug/kg		
Hexachlorobutadiene	105U ug/kg	Acenaphthylene	105U ug/kg		
Pentachlorophenol	524UJ ug/kg	Chrysene	105U ug/kg		
2,4,6-Trichlorophenol	105U ug/kg	Retene	85.1U ug/kg		
2-Nitroaniline	262U ug/kg	4,6-Dinitro-2-methylph+	1050U ug/kg		
2-Nitrophenol	262U ug/kg	1,3-Dichlorobenzene	105U ug/kg		
NAPHTHALENE, 1-METHYL-	105U ug/kg	2,6-Dinitrotoluene	524U ug/kg		
Naphthalene	105U ug/kg	N-Nitroso-di-n-Propyla+	105U ug/kg		
2-Methylnaphthalene	105U ug/kg	4-Chlorophenyl-phenyle+	105U ug/kg		
2-Chloronaphthalene	105U ug/kg	BIS(20CHLOROISOPROPYL)+	105UJ ug/kg		
3,3'-Dichlorobenzidine	131U ug/kg	Surrog: 2-Fluorobiphen+	104 % Recov		
Benzdine	131U ug/kg	2-Fluorophenol	90 % Recov		
2-Methylphenol	262U ug/kg	Terphenyl-d14	110 % Recov		
1,2-Dichlorobenzene	105U ug/kg	Pyrene-d10	94 % Recov		
o-Chlorophenol (2-Chlo+	105U ug/kg	1,2-DICHLOROENZENE-D4	78 % Recov		
2,4,5-Trichlorophenol	105U ug/kg	Surrog: D5-Nitrobenzene	96 % Recov		
Nitrobenzene	105U ug/kg	Surrog: Phenol D5	92 % Recov		
3-Nitroaniline	262U ug/kg	D4-2-CHLOROPHENOL (SS)	96 % Recov		
4-Nitroaniline	105U ug/kg				
4-Nitrophenol	262U ug/kg				
Benzyl Alcohol	105U ug/kg				
4-Bromophenyl-phenylet+	105U ug/kg				
2,4-Dimethylphenol	105U ug/kg				
4-Methylphenol	105U ug/kg				
1,4-Dichlorobenzene	105U ug/kg				
4-Chloroaniline	105U ug/kg				
Phenol	105U ug/kg				

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS  
Blank ID: BS3323D

Officer: JCC Account: D3100

B/N/Acid Scan	Sediment Result Units	B/N/Acid Scan *** Continued ***	Sediment Result Units
Blank #1		Blank #1	
Benzo(a)pyrene	26.7U ug/kg	Pyridine	26.7U ug/kg
2,4-Dinitrophenol	267U ug/kg	bis(2-Chloroethyl)Ether	26.7U ug/kg
Dibenzo(a,h)anthracene	26.7U ug/kg	bis(2-Chloroethoxy)Met+	26.7U ug/kg
Benzo(a)anthracene	26.7U ug/kg	BIS(2-ETHYLHEXYL) PHTH+	2210J* ug/kg
4-Chloro-3-Methylphenol	26.7U ug/kg	Di-n-Octyl Phthalate	26.7U ug/kg
Aniline	26.7U ug/kg	HEXACHLOROENZENE	26.7U ug/kg
Nitrosamine, Dimethyl-	26.7U ug/kg	Anthracene	26.7U ug/kg
Benzoic acid	26.7UJ ug/kg	1,2,4-Trichlorobenzene	26.7UJ ug/kg
Hexachloroethane	26.7U ug/kg	2,4-Dichlorophenol	26.7UJ ug/kg
Hexachlorocyclopentadi+	133UJ ug/kg	2,4-Dinitrotoluene	133U ug/kg
Isophorone	26.7U ug/kg	Hydrazine, 1,2-Dipheny+	26.7UJ ug/kg
Acenaphthene	26.7U ug/kg	Pyrene	26.7U ug/kg
Diethylphthalate	2.4J* ug/kg	Dimethylphthalate	66.7U ug/kg
Di-n-Butylphthalate	711 * ug/kg	Dibenzofuran	26.7U ug/kg
Phenanthrene	26.7U ug/kg	Benzo(ghi)perylene	26.7U ug/kg
Butylbenzylphthalate	26.7U ug/kg	Indeno(1,2,3-cd)pyrene	26.7U ug/kg
N-Nitrosodiphenylamine	26.7U ug/kg	Benzo(b)fluoranthene	26.7U ug/kg
Fluorene	26.7U ug/kg	Fluoranthene	26.7U ug/kg
Carbazole	26.7U ug/kg	Benzo(k)fluoranthene	26.7U ug/kg
Hexachlorobutadiene	26.7U ug/kg	Acenaphthylene	26.7U ug/kg
Pentachlorophenol	133UJ ug/kg	Chrysene	26.7U ug/kg
2,4,6-Trichlorophenol	26.7U ug/kg	Retene	21.7U ug/kg
2-Nitroaniline	66.7U ug/kg	4,6-Dinitro-2-methylph+	267U ug/kg
2-Nitrophenol	66.7U ug/kg	1,3-Dichlorobenzene	26.7U ug/kg
NAPHTHALENE, 1-METHYL-	26.7U ug/kg	2,6-Dinitrotoluene	133U ug/kg
Naphthalene	26.7U ug/kg	N-Nitroso-di-n-Propyla+	26.7U ug/kg
2-Methylnaphthalene	26.7U ug/kg	4-Chlorophenyl-phenyle+	26.7U ug/kg
2-Chloronaphthalene	26.7U ug/kg	BIS(20CHLOROISOPROPYL)+	26.7UJ ug/kg
3,3'-Dichlorobenzidine	33.3U ug/kg	Surrog: 2-Fluorobiphen+	83 % Recov
Benzdine	33.3U ug/kg	2-Fluorophenol	82 % Recov
2-Methylphenol	66.7U ug/kg	Terphenyl-d14	91 % Recov
1,2-Dichlorobenzene	26.7U ug/kg	Pyrene-d10	73 % Recov
o-Chlorophenol (2-Chlo+	26.7U ug/kg	1,2-DICHLOROENZENE-D4	68 % Recov
2,4,5-Trichlorophenol	26.7U ug/kg	Surrog: D5-Nitrobenzene	82 % Recov
Nitrobenzene	26.7U ug/kg	Surrog: Phenol D5	83 % Recov
3-Nitroaniline	66.7U ug/kg	D4-2-CHLOROPHENOL (SS)	82 % Recov
4-Nitroaniline	26.7U ug/kg		
4-Nitrophenol	66.7U ug/kg		
Benzyl Alcohol	26.7U ug/kg		
4-Bromophenyl-phenylet+	26.7U ug/kg		
2,4-Dimethylphenol	26.7U ug/kg		
4-Methylphenol	26.7U ug/kg		
1,4-Dichlorobenzene	26.7U ug/kg		
4-Chloroaniline	26.7U ug/kg		
Phenol	26.7U ug/kg		

(Sample Complete)

Project: DOE-932Y MUKILTZO SEDIMENTS

Blank ID: BS3343

B/N/Acid Scan Blank #2	Sediment Result Units	B/N/Acid Scan *** Continued *** Blank #2	Sediment Result Units	Tent Ident - B/N/Aci *** Continued *** Blank #2	Sediment Result Units
Benzo(a)pyrene	26.7U ug/kg	Pyridine	26.7U ug/kg	4-HYDROXY-4-METHYLPENT+	57300NJ* ug/kg
2,4-Dinitrophenol	26.7U ug/kg	bis(2-Chloroethyl)Ether	26.7U ug/kg	3-PENTEN-2-ONE, 4-METH+	113NJ* ug/kg
Dibenzo(a,h)anthracene	26.7U ug/kg	bis(2-Chloroethoxy)Met+	26.7U ug/kg	11H-BENZO[A]FLUORENE	11.4NJ* ug/kg
Benzo(a)anthracene	26.7U ug/kg	BIS(2-ETHYLHEXYL) PHTH+	1450 * ug/kg	3-PENTEN-2-ONE, (E)-	15.9NJ* ug/kg
4-Chloro-3-Methylphenol	26.7U ug/kg	Di-n-Octyl Phthalate	26.7U ug/kg	UNKNOWN HYDROCARBON 1	12.6NJ* ug/kg
Aniline	26.7U ug/kg	HEXACHLOROBENZENE	26.7U ug/kg	UNKNOWN COMPOUND 1	2920NJ* ug/kg
Nitrosamine, Dimethyl-	26.7U ug/kg	Anthracene	26.7U ug/kg	UNKNOWN COMPOUND 2	53.0NJ* ug/kg
Benzoic acid	11.0J* ug/kg	1,2,4-Trichlorobenzene	26.7UJ ug/kg	UNKNOWN COMPOUND 3	1700NJ* ug/kg
Hexachloroethane	26.7U ug/kg	2,4-Dichlorophenol	26.7UJ ug/kg	UNKNOWN COMPOUND 4	263NJ* ug/kg
Hexachlorocyclopentadi+	1330J ug/kg	2,4-Dinitrotoluene	133U ug/kg	UNKNOWN COMPOUND 5	178NJ* ug/kg
Isophorone	26.7U ug/kg	Hydrazine, 1,2-Dipheny+	26.7UJ ug/kg	UNKNOWN COMPOUND 6	19.9NJ* ug/kg
Acenaphthene	26.7U ug/kg	Pyrene	26.7U ug/kg	UNKNOWN COMPOUND 7	30.0NJ* ug/kg
Diethylphthalate	2.7J* ug/kg	Dimethylphthalate	66.7U ug/kg	UNKNOWN COMPOUND 8	92.0NJ* ug/kg
Di-n-Butylphthalate	1600 * ug/kg	Dibenzofuran	26.7U ug/kg	UNKNOWN COMPOUND 9	14.0NJ* ug/kg
Phenanthrene	26.7U ug/kg	Benzo(ghi)perylene	26.7U ug/kg	UNKNOWN COMPOUND 10	15.2NJ* ug/kg
Butylbenzylphthalate	6.0J* ug/kg	Indeno(1,2,3-cd)pyrene	26.7U ug/kg	difluorobiphenyl (surr+	12.7NJ* ug/kg
N-Nitrosodiphenylamine	26.7U ug/kg	Benzo(b)fluoranthene	26.7U ug/kg	difluorobiphenyl (surr+	19.9NJ* ug/kg
Fluorene	26.7U ug/kg	Fluoranthene	26.7U ug/kg		
Carbazole	26.7U ug/kg	Benzo(k)fluoranthene	26.7U ug/kg		
Hexachlorobutadiene	26.7U ug/kg	Acenaphthylene	26.7U ug/kg		
Pentachlorophenol	133UJ ug/kg	Chrysene	26.7U ug/kg		
2,4,6-Trichlorophenol	26.7U ug/kg	Retene	21.7U ug/kg		
2-Nitroaniline	66.7U ug/kg	4,6-Dinitro-2-methylph+	267U ug/kg		
NAPHTHALENE, 1-METHYL-	26.7U ug/kg	1,3-Dichlorobenzene	26.7U ug/kg		
Napthalene	26.7U ug/kg	2,6-Dinitrotoluene	133U ug/kg		
2-Methylnapthalene	26.7U ug/kg	N-Nitroso-di-n-Propyla+	26.7U ug/kg		
2-Chloronapthalene	26.7U ug/kg	4-Chlorophenyl-phenyle+	26.7U ug/kg		
3,3'-Dichlorobenzidine	33.3U ug/kg	BIS(20CHLOROISOPROPYL)+	26.7UJ ug/kg		
Benidine	33.3U ug/kg	Surrog: 2-Fluorobiphen+	70 ug/kg		Recov
2-Methylphenol	66.7U ug/kg	2-Fluorophenol	68 ug/kg		Recov
1,2-Dichlorobenzene	26.7U ug/kg	Terphenyl-d14	79 ug/kg		Recov
o-Chlorophenol (2-Chlo+	26.7U ug/kg	Pyrene-d10	77 ug/kg		Recov
2,4,5-Trichlorophenol	26.7U ug/kg	1,2-DICHLOROBENZENE-D4	63 ug/kg		Recov
Nitrobenzene	26.7U ug/kg	Surrog: D5-Nitrobenzene	70 ug/kg		Recov
3-Nitroaniline	66.7U ug/kg	Surrog: Phenol D5	67 ug/kg		Recov
4-Nitroaniline	26.7U ug/kg	D4-2-CHLOROPHENOL (SS)	67 ug/kg		Recov
4-Nitrophenol	66.7U ug/kg				
Benzyl Alcohol	26.7U ug/kg				
4-Bromophenyl-phenylet+	26.7U ug/kg				
2,4-Dimethylphenol	26.7U ug/kg				
4-Methylphenol	26.7U ug/kg				
1,4-Dichlorobenzene	26.7U ug/kg				
4-Chloroaniline	26.7U ug/kg				
Phenol	26.7U ug/kg				

(Sample Complete)

Project: DOE-932Y MUKILTZO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: BS3343D

Tent Ident - B/N/Aci Blank #1	Sediment Result Units
HYDROPEROXIDE, 1,1-DIM+	58.0NJ* ug/kg
Hexanedioic acid, bis(+	51.4NJ* ug/kg
Toluene	253NJ* ug/kg
Triphenyl phosphate	115NJ* ug/kg
4-HYDROXY-4-METHYLPENT+	65700NJ* ug/kg
3-PENTEN-2-ONE, 4-METH+	143NJ* ug/kg
3-PENTEN-2-ONE, (E)-	26.1NJ* ug/kg
2-BUTANOL, 3-METHYL-, +	203NJ* ug/kg
UNKNOWN COMPOUND 1	37.8NJ* ug/kg
UNKNOWN COMPOUND 2	3310NJ* ug/kg
UNKNOWN COMPOUND 3	1870NJ* ug/kg
UNKNOWN COMPOUND 4	297NJ* ug/kg
UNKNOWN COMPOUND 5	25.4NJ* ug/kg
UNKNOWN COMPOUND 6	21.1NJ* ug/kg
UNKNOWN COMPOUND 7	28.0NJ* ug/kg
UNKNOWN COMPOUND 8	154NJ* ug/kg
UNKNOWN COMPOUND 9	22.3NJ* ug/kg
UNKNOWN COMPOUND 10	41.2NJ* ug/kg
UNKNOWN COMPOUND 11	41.3NJ* ug/kg
difluorobiphenyl (surr+	24.8NJ* ug/kg

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508105

Description: C01

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	2.9U	ug/kg	1,3,5-Trimethylbenzene	2.9U	ug/kg
Acetone	6.6UJ	ug/kg	Bromobenzene	2.9U	ug/kg
Chloroform	2.9U	ug/kg	Toluene	2.9U	ug/kg
Benzene	2.9U	ug/kg	Chlorobenzene	2.9U	ug/kg
1,1,1-Trichloroethane	2.9U	ug/kg	1,2,4-Trichlorobenzene	2.9UJ	ug/kg
Bromomethane	2.9U	ug/kg	Dibromochloromethane	2.9U	ug/kg
Chloromethane	2.9U	ug/kg	Tetrachloroethene	2.9U	ug/kg
Dibromomethane	2.9U	ug/kg	Sec-Butylbenzene	2.9U	ug/kg
Bromochloromethane	2.9U	ug/kg	1,3-Dichloropropane	2.9U	ug/kg
Chloroethane	2.9U	ug/kg	Cis-1,2-Dichloroethene	2.9U	ug/kg
Vinyl Chloride	14.6U	ug/kg	trans-1,2-Dichloroethene	2.9U	ug/kg
Methylene Chloride	14.6U	ug/kg	1,3-Dichlorobenzene	2.9U	ug/kg
Carbon Disulfide	2.9U	ug/kg	1,1-Dichloropropene	2.9U	ug/kg
Bromoform	2.9U	ug/kg	2-Hexanone	117UJ	ug/kg
Bromodichloromethane	2.9U	ug/kg	2,2-Dichloropropane	2.9U	ug/kg
1,1-Dichloroethane	2.9U	ug/kg	Ethane, 1,1,1,2-Tetrac	2.9U	ug/kg
1,1-Dichloroethene	2.9U	ug/kg	Total Xylenes	8.8U	ug/kg
Trichlorofluoromethane	2.9U	ug/kg	m p-XYLENE	2.9U	ug/kg
Methane, Dichlorodiflu	2.9U	ug/kg	cis-1,3-Dichloropropane	2.9U	ug/kg
1,2-Dichloropropane	2.9U	ug/kg	trans-1,3-Dichloroprop	2.9U	ug/kg
2-Butanone	29.2U	ug/kg	p-BROMOFLUOROBENZENE	90	ug/kg Recov
1,1,2-Trichloroethane	2.9U	ug/kg	FLUOROBENZENE	102	ug/kg Recov
Ethene, trichloro	2.9U	ug/kg	TOLUENE-D8	104	ug/kg Recov
ETHANE, 1,1,2,2-TETRAC	2.9U	ug/kg	1,2-DICHLOROBENZENE-D4	110	ug/kg Recov
1,2,3-Trichlorobenzene	2.9UJ	ug/kg	d4-1,2-Dichloroethane	111	ug/kg Recov
Hexachlorobutadiene	2.9UJ	ug/kg			
Naphthalene	2.9U	ug/kg			
o-XYLENE	2.9U	ug/kg			
2-Chlorotoluene	2.9U	ug/kg			
1,2-Dichlorobenzene	2.9U	ug/kg			
1,2,4-Trimethylbenzene	2.9U	ug/kg			
1,2-Dibromo-3-chloropr	2.9U	ug/kg			
1,2,3-Trichloropropane	2.9U	ug/kg			
Tert-Butylbenzene	2.9U	ug/kg			
Isopropylbenzene (Cume	2.9U	ug/kg			
p-Isopropyltoluene	2.9U	ug/kg			
Ethylbenzene	2.9U	ug/kg			
BENZENE, ETHENYL-(STYR	2.9UJ	ug/kg			
BENZENE, PROPYL-	2.9U	ug/kg			
Butylbenzene	2.9UJ	ug/kg			
4-Chlorotoluene	2.9U	ug/kg			
1,4-Dichlorobenzene	2.9U	ug/kg			
1,2-Dibromoethane (EDB)	2.9U	ug/kg			
1,2-Dichloroethane	2.9U	ug/kg			
4-Methyl-2-Pentanone(M	29.2U	ug/kg			

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508106

Description: C02

Officer: JCC Account: D3100

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.7U	ug/kg	1,3,5-Trimethylbenzene	1.7U	ug/kg
Acetone	3.1UJ	ug/kg	Bromobenzene	1.7U	ug/kg
Chloroform	1.7U	ug/kg	Toluene	1.7U	ug/kg
Benzene	1.7U	ug/kg	Chlorobenzene	1.7U	ug/kg
1,1,1-Trichloroethane	1.7U	ug/kg	1,2,4-Trichlorobenzene	1.7U	ug/kg
Bromomethane	1.7U	ug/kg	Dibromochloromethane	1.7U	ug/kg
Chloromethane	1.7U	ug/kg	Tetrachloroethene	1.7U	ug/kg
Dibromomethane	1.7U	ug/kg	Sec-Butylbenzene	1.7U	ug/kg
Bromochloromethane	1.7U	ug/kg	1,3-Dichloropropane	1.7U	ug/kg
Chloroethane	1.7U	ug/kg	Cis-1,2-Dichloroethene	1.7U	ug/kg
Vinyl Chloride	8.4U	ug/kg	trans-1,2-Dichloroethene	1.7U	ug/kg
Methylene Chloride	8.4U	ug/kg	1,3-Dichlorobenzene	1.7U	ug/kg
Carbon Disulfide	1.7U	ug/kg	1,1-Dichloropropene	1.7U	ug/kg
Bromoform	1.7U	ug/kg	2-Hexanone	66.8UJ	ug/kg
Bromodichloromethane	1.7U	ug/kg	2,2-Dichloropropane	1.7U	ug/kg
1,1-Dichloroethane	1.7U	ug/kg	Ethane, 1,1,1,2-Tetrac	1.7U	ug/kg
1,1-Dichloroethene	1.7U	ug/kg	Total Xylenes	5.0U	ug/kg
Trichlorofluoromethane	1.7U	ug/kg	m p-XYLENE	1.7U	ug/kg
Methane, Dichlorodiflu	1.7U	ug/kg	cis-1,3-Dichloropropane	1.7U	ug/kg
1,2-Dichloropropane	1.7U	ug/kg	trans-1,3-Dichloroprop	1.7U	ug/kg
2-Butanone	16.7U	ug/kg	p-BROMOFLUOROBENZENE	87	ug/kg Recov
1,1,2-Trichloroethane	1.7U	ug/kg	FLUOROBENZENE	99	ug/kg Recov
Ethene, trichloro	1.7U	ug/kg	TOLUENE-D8	102	ug/kg Recov
ETHANE, 1,1,2,2-TETRAC	1.7UJ	ug/kg	1,2-DICHLOROBENZENE-D4	102	ug/kg Recov
1,2,3-Trichlorobenzene	1.7UJ	ug/kg	d4-1,2-Dichloroethane	111	ug/kg Recov
Hexachlorobutadiene	1.7UJ	ug/kg			
Naphthalene	1.7U	ug/kg			
o-XYLENE	1.7U	ug/kg			
2-Chlorotoluene	1.7U	ug/kg			
1,2-Dichlorobenzene	1.7U	ug/kg			
1,2,4-Trimethylbenzene	1.7U	ug/kg			
1,2-Dibromo-3-chloropr	1.7U	ug/kg			
1,2,3-Trichloropropane	1.7U	ug/kg			
Tert-Butylbenzene	1.7U	ug/kg			
Isopropylbenzene (Cume	1.7U	ug/kg			
p-Isopropyltoluene	1.7U	ug/kg			
Ethylbenzene	1.7U	ug/kg			
BENZENE, ETHENYL-(STYR	1.7UJ	ug/kg			
BENZENE, PROPYL-	1.7U	ug/kg			
Butylbenzene	1.7UJ	ug/kg			
4-Chlorotoluene	1.7U	ug/kg			
1,4-Dichlorobenzene	1.7U	ug/kg			
1,2-Dibromoethane (EDB)	1.7U	ug/kg			
1,2-Dichloroethane	1.7U	ug/kg			
4-Methyl-2-Pentanone(M	16.7U	ug/kg			

(Sample Complete)



Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Source: Sediment (General)

Sample No: 93 508107

Description: C03

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.70	ug/kg	1,3,5-Trimethylbenzene	1.70	ug/kg
Acetone	27.90J	ug/kg	Bromobenzene	1.70	ug/kg
Chloroform	1.70	ug/kg	Toluene	1.70	ug/kg
Benzene	1.70	ug/kg	Chlorobenzene	1.70	ug/kg
1,1,1-Trichloroethane	1.70	ug/kg	1,2,4-Trichlorobenzene	1.70J	ug/kg
Bromomethane	1.70	ug/kg	Dibromochloromethane	1.70	ug/kg
Chloromethane	1.70	ug/kg	Tetrachloroethene	1.70	ug/kg
Dibromomethane	1.70	ug/kg	Sec-Butylbenzene	1.70	ug/kg
Bromochloromethane	1.70	ug/kg	1,3-Dichloropropane	1.70	ug/kg
Chloroethane	1.70	ug/kg	Cis-1,2-Dichloroethene	1.70	ug/kg
Vinyl Chloride	1.70	ug/kg	trans-1,2-Dichloroethene	1.70	ug/kg
Methylene Chloride	3.20J	ug/kg	1,3-Dichlorobenzene	1.70	ug/kg
Carbon Disulfide	1.90J	ug/kg	1,1-Dichloropropene	1.70	ug/kg
Bromoform	1.70	ug/kg	2-Hexanone	68.20J	ug/kg
Bromodichloromethane	1.70	ug/kg	2,2-Dichloropropane	1.70	ug/kg
1,1-Dichloroethane	1.70	ug/kg	Ethane, 1,1,1,2-Tetrac+	1.70	ug/kg
1,1-Dichloroethene	1.70	ug/kg	Total Xylenes	5.10	ug/kg
Trichlorofluoromethane	1.70	ug/kg	m p-XYLENE	1.70	ug/kg
Methane, Dichlorodiflu-	1.70	ug/kg	cis-1,3-Dichloropropene	1.70	ug/kg
1,2-Dichloropropane	1.70	ug/kg	trans-1,3-Dichloroprop+	1.70	ug/kg
2-Butanone	17.10J	ug/kg	p-BROMOFLUOROENZENE	88	% Recov
1,1,2-Trichloroethane	1.70	ug/kg	FLUROENZENE	101	% Recov
Ethene, trichloro-	1.70	ug/kg	TOLUENE-D8	98	% Recov
ETHANE, 1,1,2,2-TETRAC-	1.70	ug/kg	1,2-DICHLOROENZENE-D4	104	% Recov
1,2,3-Trichlorobenzene	1.70J	ug/kg	d4-1,2-Dichloroethane	101	% Recov
Hexachlorobutadiene	1.70	ug/kg			
Naphthalene	1.70	ug/kg			
o-XYLENE	1.70	ug/kg			
2-Chlorotoluene	1.70	ug/kg			
1,2-Dichlorobenzene	1.70	ug/kg			
1,2,4-Trimethylbenzene	1.70	ug/kg			
1,2-Dibromo-3-chloropr+	1.70	ug/kg			
1,2,3-Trichloropropane	1.70	ug/kg			
tert-Butylbenzene	1.70	ug/kg			
Isopropylbenzene (Cume-	1.70	ug/kg			
p-Isopropyltoluene	1.70	ug/kg			
Ethylbenzene	1.70	ug/kg			
BENZENE, ETHENYL-(STYR-	1.70	ug/kg			
BENZENE, PROPYL-	1.70	ug/kg			
Butylbenzene	1.70J	ug/kg			
4-Chlorotoluene	1.70	ug/kg			
1,4-Dichlorobenzene	1.70	ug/kg			
1,2-Dibromoethane (EDB)	1.70	ug/kg			
1,2-Dichloroethane	1.70	ug/kg			
4-Methyl-2-Pentanone(M-	17.10	ug/kg			

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Source: Sediment (General)

Sample No: 93 508108

Description: C04

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.40	ug/kg	1,3,5-Trimethylbenzene	1.40	ug/kg
Acetone	2.30J	ug/kg	Bromobenzene	1.40	ug/kg
Chloroform	1.40	ug/kg	Toluene	1.40	ug/kg
Benzene	1.40	ug/kg	Chlorobenzene	1.40	ug/kg
1,1,1-Trichloroethane	1.40	ug/kg	1,2,4-Trichlorobenzene	1.40J	ug/kg
Bromomethane	1.40	ug/kg	Dibromochloromethane	1.40	ug/kg
Chloromethane	1.40	ug/kg	Tetrachloroethene	1.40	ug/kg
Dibromomethane	1.40	ug/kg	Sec-Butylbenzene	1.40	ug/kg
Bromochloromethane	1.40	ug/kg	1,3-Dichloropropane	1.40	ug/kg
Chloroethane	1.40	ug/kg	Cis-1,2-Dichloroethene	1.40	ug/kg
Vinyl Chloride	1.40	ug/kg	trans-1,2-Dichloroethene	1.40	ug/kg
Methylene Chloride	6.80	ug/kg	1,3-Dichlorobenzene	1.40	ug/kg
Carbon Disulfide	1.40	ug/kg	1,1-Dichloropropene	1.40	ug/kg
Bromoform	1.40	ug/kg	2-Hexanone	54.60J	ug/kg
Bromodichloromethane	1.40	ug/kg	2,2-Dichloropropane	1.40	ug/kg
1,1-Dichloroethane	1.40	ug/kg	Ethane, 1,1,1,2-Tetrac+	1.40	ug/kg
1,1-Dichloroethene	1.40	ug/kg	Total Xylenes	4.10	ug/kg
Trichlorofluoromethane	1.40	ug/kg	m p-XYLENE	1.40	ug/kg
Methane, Dichlorodiflu-	1.40	ug/kg	cis-1,3-Dichloropropene	1.40	ug/kg
1,2-Dichloropropane	1.40	ug/kg	trans-1,3-Dichloroprop+	1.40	ug/kg
2-Butanone	13.70	ug/kg	p-BROMOFLUROENZENE	90	% Recov
1,1,2-Trichloroethane	1.40	ug/kg	FLUROENZENE	102	% Recov
Ethene, trichloro-	1.40	ug/kg	TOLUENE-D8	105	% Recov
ETHANE, 1,1,2,2-TETRAC-	1.40	ug/kg	1,2-DICHLOROENZENE-D4	102	% Recov
1,2,3-Trichlorobenzene	1.40J	ug/kg	d4-1,2-Dichloroethane	113	% Recov
Hexachlorobutadiene	1.40J	ug/kg			
Naphthalene	1.40	ug/kg			
o-XYLENE	1.40	ug/kg			
2-Chlorotoluene	1.40	ug/kg			
1,2-Dichlorobenzene	1.40	ug/kg			
1,2,4-Trimethylbenzene	1.40	ug/kg			
1,2-Dibromo-3-chloropr+	1.40	ug/kg			
1,2,3-Trichloropropane	1.40	ug/kg			
tert-Butylbenzene	1.40	ug/kg			
Isopropylbenzene (Cume-	1.40	ug/kg			
p-Isopropyltoluene	1.40	ug/kg			
Ethylbenzene	1.40	ug/kg			
BENZENE, ETHENYL-(STYR-	1.40J	ug/kg			
BENZENE, PROPYL-	1.40	ug/kg			
Butylbenzene	1.40J	ug/kg			
4-Chlorotoluene	1.40	ug/kg			
1,4-Dichlorobenzene	1.40	ug/kg			
1,2-Dibromoethane (EDB)	1.40	ug/kg			
1,2-Dichloroethane	1.40	ug/kg			
4-Methyl-2-Pentanone(M-	13.70	ug/kg			

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508109

Description: C05

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.50	ug/kg	1,3,5-Trimethylbenzene	1.50	ug/kg
Acetone	3.10J	ug/kg	Bromobenzene	1.50	ug/kg
Chloroform	1.50	ug/kg	Toluene	1.50	ug/kg
Benzene	1.50	ug/kg	Chlorobenzene	1.50	ug/kg
1,1,1-Trichloroethane	1.50	ug/kg	1,2,4-Trichlorobenzene	1.50J	ug/kg
Bromomethane	1.50	ug/kg	Dibromochloromethane	1.50	ug/kg
Chloromethane	1.50	ug/kg	Tetrachloroethene	1.50	ug/kg
Dibromomethane	1.50	ug/kg	Sec-Butylbenzene	1.50	ug/kg
Bromochloromethane	1.50	ug/kg	1,3-Dichloropropane	1.50	ug/kg
Chloroethane	1.50	ug/kg	Cis-1,2-Dichloroethene	1.50	ug/kg
Vinyl Chloride	1.50	ug/kg	trans-1,2-Dichloroethene	1.50	ug/kg
Methylene Chloride	3.10J	ug/kg	1,3-Dichlorobenzene	1.50	ug/kg
Carbon Disulfide	7.60	ug/kg	1,1-Dichloropropene	1.50	ug/kg
Bromoform	1.50	ug/kg	2-Hexanone	60.40J	ug/kg
Bromodichloromethane	1.50	ug/kg	2,2-Dichloropropane	1.50	ug/kg
1,1-Dichloroethane	1.50	ug/kg	Ethane, 1,1,1,2-Tetrac-	1.50	ug/kg
Trichlorofluoromethane	1.50	ug/kg	Total Xylenes	4.50	ug/kg
Methane, Dichlorodiflu-	1.50	ug/kg	m p-XYLENE	1.50	ug/kg
1,2-Dichloropropane	1.50	ug/kg	cis-1,3-Dichloropropene	1.50	ug/kg
2-Butanone	15.10	ug/kg	trans-1,3-Dichloroprop-	1.50	ug/kg
1,1,2-Trichloroethane	1.50	ug/kg	p-BROMOFLUOROENZENE	87	% Recov
Ethene, trichloro-	1.50	ug/kg	FLUOROENZENE	98	% Recov
ETHANE, 1,1,2,2-TETRAC-	1.50	ug/kg	TOLUENE-D8	104	% Recov
1,2,3-Trichlorobenzene	1.50J	ug/kg	1,2-DICHLOROENZENE-D4	102	% Recov
Hexachlorobutadiene	1.50J	ug/kg	d4-1,2-Dichloroethane	110	% Recov
Naphthalene	1.50	ug/kg			
o-XYLENE	1.50	ug/kg			
2-Chlorotoluene	1.50	ug/kg	Tent Ident - VOA Sca	Sediment	
1,2-Dichlorobenzene	1.50	ug/kg	Result	Units	
1,2,4-Trimethylbenzene	1.50	ug/kg			
1,2-Dibromo-3-chloropr-	1.50	ug/kg	METHANE, THIOBIS	47.0NJ*	ug/kg
1,2,3-Trichloropropane	1.50	ug/kg	HEXANE(DOT)	1.0NJ*	ug/kg
Tert-Butylbenzene	1.50	ug/kg	UNKNOWN HYDROCARBON	1.1NJ*	ug/kg
Isopropylbenzene (Cume-	1.50	ug/kg			
p-Isopropyltoluene	1.50	ug/kg			
Ethylbenzene	1.50	ug/kg			
BENZENE, ETHENYL-(STYR-	1.50J	ug/kg			
BENZENE, PROPYL-	1.50	ug/kg			
Butylbenzene	1.50J	ug/kg			
4-Chlorotoluene	1.50	ug/kg			
1,4-Dichlorobenzene	1.50	ug/kg			
1,2-Dibromoethane (EDB)	1.50	ug/kg			
1,2-Dichloroethane	1.50	ug/kg			
4-Methyl-2-Pentanone(M-	15.10	ug/kg			

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508110

Description: C06

Officer: JCC

Account: D3100

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.40	ug/kg	1,3,5-Trimethylbenzene	1.40	ug/kg
Acetone	2.50J	ug/kg	Bromobenzene	1.40	ug/kg
Chloroform	0.38J	ug/kg	Toluene	1.40	ug/kg
Benzene	1.40	ug/kg	Chlorobenzene	1.40	ug/kg
1,1,1-Trichloroethane	1.40	ug/kg	1,2,4-Trichlorobenzene	1.40J	ug/kg
Bromomethane	1.40	ug/kg	Dibromochloromethane	1.40	ug/kg
Chloromethane	1.40	ug/kg	Tetrachloroethene	1.40	ug/kg
Dibromomethane	1.40	ug/kg	Sec-Butylbenzene	1.40	ug/kg
Bromochloromethane	1.40	ug/kg	1,3-Dichloropropane	1.40	ug/kg
Chloroethane	1.40	ug/kg	Cis-1,2-Dichloroethene	1.40	ug/kg
Vinyl Chloride	1.40	ug/kg	trans-1,2-Dichloroethene	1.40	ug/kg
Methylene Chloride	6.90	ug/kg	1,3-Dichlorobenzene	1.40	ug/kg
Carbon Disulfide	6.90	ug/kg	1,1-Dichloropropene	1.40	ug/kg
Bromoform	1.40	ug/kg	2-Hexanone	55.10J	ug/kg
Bromodichloromethane	1.40	ug/kg	2,2-Dichloropropane	1.40	ug/kg
1,1-Dichloroethane	1.40	ug/kg	Ethane, 1,1,1,2-Tetrac-	1.40	ug/kg
1,1-Dichloroethene	1.40	ug/kg	Total Xylenes	4.10	ug/kg
Trichlorofluoromethane	1.40	ug/kg	m p-XYLENE	1.40	ug/kg
Methane, Dichlorodiflu-	1.40	ug/kg	cis-1,3-Dichloropropene	1.40	ug/kg
1,2-Dichloropropane	1.40	ug/kg	trans-1,3-Dichloroprop-	1.40	ug/kg
2-Butanone	13.80	ug/kg	p-BROMOFLUOROENZENE	83	% Recov
1,1,2-Trichloroethane	1.40	ug/kg	FLUOROENZENE	98	% Recov
Ethene, trichloro-	1.40	ug/kg	TOLUENE-D8	104	% Recov
ETHANE, 1,1,2,2-TETRAC-	1.40	ug/kg	1,2-DICHLOROENZENE-D4	107	% Recov
1,2,3-Trichlorobenzene	1.40J	ug/kg	d4-1,2-Dichloroethane	109	% Recov
Hexachlorobutadiene	1.40J	ug/kg			
Naphthalene	1.40	ug/kg			
o-XYLENE	1.40	ug/kg	Tent Ident - VOA Sca	Sediment	
2-Chlorotoluene	1.40	ug/kg	Result	Units	
1,2-Dichlorobenzene	1.40	ug/kg			
1,2,4-Trimethylbenzene	1.40	ug/kg	METHANE, THIOBIS	8.2NJ*	ug/kg
1,2-Dibromo-3-chloropr-	1.40	ug/kg			
1,2,3-Trichloropropane	1.40	ug/kg			
Tert-Butylbenzene	1.40	ug/kg			
Isopropylbenzene (Cume-	1.40	ug/kg			
p-Isopropyltoluene	1.40	ug/kg			
Ethylbenzene	1.40	ug/kg			
BENZENE, ETHENYL-(STYR-	1.40J	ug/kg			
BENZENE, PROPYL-	1.40	ug/kg			
Butylbenzene	1.40J	ug/kg			
4-Chlorotoluene	1.40	ug/kg			
1,4-Dichlorobenzene	1.40	ug/kg			
1,2-Dibromoethane (EDB)	1.40	ug/kg			
1,2-Dichloroethane	1.40	ug/kg			
4-Methyl-2-Pentanone(M-	13.80	ug/kg			

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508111

Description: C07

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	2.10	ug/kg	1,3,5-Trimethylbenzene	2.10	ug/kg
Acetone	10.40UJ	ug/kg	Bromobenzene	2.10	ug/kg
Chloroform	2.10	ug/kg	Toluene	2.10UJ	ug/kg
Benzene	2.10	ug/kg	Chlorobenzene	2.10	ug/kg
1,1,1-Trichloroethane	2.10	ug/kg	1,2,4-Trichlorobenzene	2.10UJ	ug/kg
Bromomethane	2.10	ug/kg	Dibromochloromethane	2.10	ug/kg
Chloromethane	2.10	ug/kg	Tetrachloroethene	2.10	ug/kg
Dibromomethane	2.10	ug/kg	Sec-Butylbenzene	2.10	ug/kg
Bromochloromethane	2.10	ug/kg	1,3-Dichloropropane	2.10	ug/kg
Chloroethane	2.10	ug/kg	Cis-1,2-Dichloroethene	2.10	ug/kg
Vinyl Chloride	2.10	ug/kg	trans-1,2-Dichloroethene	2.10	ug/kg
Methylene Chloride	10.10	ug/kg	1,3-Dichlorobenzene	2.10	ug/kg
Carbon Disulfide	10.10	ug/kg	1,1-Dichloropropene	2.10	ug/kg
Bromoform	2.10	ug/kg	2-Hexanone	82.60UJ	ug/kg
Bromodichloromethane	2.10	ug/kg	2,2-Dichloropropane	2.10	ug/kg
1,1-Dichloroethane	2.10	ug/kg	Ethane, 1,1,1,2-Tetrac+	2.10	ug/kg
1,1-Dichloroethene	2.10	ug/kg	Total Xylenes	6.20	ug/kg
Trichlorofluoromethane	2.10	ug/kg	m,p-XYLENE	2.10	ug/kg
Methane, Dichlorodiflu-	2.10	ug/kg	Cis-1,3-Dichloropropene	2.10	ug/kg
1,2-Dichloropropane	2.10	ug/kg	trans-1,3-Dichloroprop+	2.10	ug/kg
2-Butanone	20.70	ug/kg	p-BROMOFLUOROBENZENE	89	% Recov
1,1,2-Trichloroethane	2.10	ug/kg	FLUOROBENZENE	100	% Recov
Ethene, trichloro-	2.10	ug/kg	TOLUENE-D8	106	% Recov
ETHANE, 1,1,2,2-TETRAC+	2.10	ug/kg	1,2-DICHLOROBENZENE-D4	107	% Recov
1,2,3-Trichlorobenzene	2.10UJ	ug/kg	d4-1,2-Dichloroethane	109	% Recov
Hexachlorobutadiene	2.10UJ	ug/kg			
Naphthalene	2.10	ug/kg			
o-XYLENE	2.10	ug/kg			
2-Chlorotoluene	2.10	ug/kg			
1,2-Dichlorobenzene	2.10	ug/kg			
1,2,4-Trimethylbenzene	2.10	ug/kg			
1,2-Dibromo-3-chloropr-	2.10	ug/kg			
1,2,3-Trichloropropane	2.10	ug/kg			
Tert-Butylbenzene	2.10	ug/kg			
Isopropylbenzene (Cume-	2.10	ug/kg			
p-Isopropyltoluene	2.10	ug/kg			
Ethylbenzene	2.10	ug/kg			
BENZENE, ETHENYL-(STYR-	2.10UJ	ug/kg			
BENZENE, PROPYL-	2.10	ug/kg			
Butylbenzene	2.10UJ	ug/kg			
4-Chlorotoluene	2.10	ug/kg			
1,4-Dichlorobenzene	2.10	ug/kg			
1,2-Dibromoethane (EDB)	2.10	ug/kg			
1,2-Dichloroethane	2.10	ug/kg			
4-Methyl-2-Pentanone(M+	20.70	ug/kg			

(Sample Complete)

Tent Ident - VOA Sca	Sediment Result	Units
METHANE, THIOBIS	18.8NJ*	ug/kg

Project: DOE-932Y MUKILTEO SEDIMENTS

Laboratory: Ecology, Manchester

Sample No: 93 508112

Description: C08

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.80	ug/kg	1,3,5-Trimethylbenzene	1.80	ug/kg
Acetone	3.10UJ	ug/kg	Bromobenzene	1.80	ug/kg
Chloroform	1.80	ug/kg	Toluene	1.80	ug/kg
Benzene	1.2J*	ug/kg	Chlorobenzene	1.80	ug/kg
1,1,1-Trichloroethane	1.80	ug/kg	1,2,4-Trichlorobenzene	1.80UJ	ug/kg
Bromomethane	1.80	ug/kg	Dibromochloromethane	1.80	ug/kg
Chloromethane	1.80	ug/kg	Tetrachloroethene	1.80	ug/kg
Dibromomethane	1.80	ug/kg	Sec-Butylbenzene	1.80	ug/kg
Bromochloromethane	1.80	ug/kg	1,3-Dichloropropane	1.80	ug/kg
Chloroethane	1.80	ug/kg	Cis-1,2-Dichloroethene	1.80	ug/kg
Vinyl Chloride	1.80	ug/kg	trans-1,2-Dichloroethene	1.80	ug/kg
Methylene Chloride	9.20	ug/kg	1,3-Dichlorobenzene	1.80	ug/kg
Carbon Disulfide	9.20	ug/kg	1,1-Dichloropropene	1.80	ug/kg
Bromoform	1.80	ug/kg	2-Hexanone	73.50UJ	ug/kg
Bromodichloromethane	1.80	ug/kg	2,2-Dichloropropane	1.80	ug/kg
1,1-Dichloroethane	1.80	ug/kg	Ethane, 1,1,1,2-Tetrac+	1.80	ug/kg
1,1-Dichloroethene	1.80	ug/kg	Total Xylenes	5.50	ug/kg
Trichlorofluoromethane	1.80	ug/kg	m,p-XYLENE	1.80	ug/kg
Methane, Dichlorodiflu-	1.80	ug/kg	Cis-1,3-Dichloropropene	1.80	ug/kg
1,2-Dichloropropane	1.80	ug/kg	trans-1,3-Dichloroprop+	1.80	ug/kg
2-Butanone	18.40	ug/kg	p-BROMOFLUOROBENZENE	89	% Recov
1,1,2-Trichloroethane	1.80	ug/kg	FLUOROBENZENE	99	% Recov
Ethene, trichloro-	1.80	ug/kg	TOLUENE-D8	105	% Recov
ETHANE, 1,1,2,2-TETRAC+	1.80	ug/kg	1,2-DICHLOROBENZENE-D4	108	% Recov
1,2,3-Trichlorobenzene	1.80UJ	ug/kg	d4-1,2-Dichloroethane	112	% Recov
Hexachlorobutadiene	1.80UJ	ug/kg			
Naphthalene	1.80	ug/kg			
o-XYLENE	1.80	ug/kg			
2-Chlorotoluene	1.80	ug/kg			
1,2-Dichlorobenzene	1.80	ug/kg			
1,2,4-Trimethylbenzene	1.80	ug/kg			
1,2-Dibromo-3-chloropr-	1.80	ug/kg			
1,2,3-Trichloropropane	1.80	ug/kg			
Tert-Butylbenzene	1.80	ug/kg			
Isopropylbenzene (Cume-	1.80	ug/kg			
p-Isopropyltoluene	1.80	ug/kg			
Ethylbenzene	1.80	ug/kg			
BENZENE, ETHENYL-(STYR-	1.80UJ	ug/kg			
BENZENE, PROPYL-	1.80	ug/kg			
Butylbenzene	1.80UJ	ug/kg			
4-Chlorotoluene	1.80	ug/kg			
1,4-Dichlorobenzene	1.80	ug/kg			
1,2-Dibromoethane (EDB)	1.80	ug/kg			
1,2-Dichloroethane	1.80	ug/kg			
4-Methyl-2-Pentanone(M+	18.40	ug/kg			

(Sample Complete)

Tent Ident - VOA Sca	Sediment Result	Units
METHANE, THIOBIS	40.2NJ*	ug/kg

Project: DOE-932Y MUKILTEO SEDIMENTS

laboratory: Ecology, Manchester

Sample No: 93 508117

Description: C13

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan	Sediment Result	Units
Carbon Tetrachloride	1.6U	ug/kg	1,3,5-Trimethylbenzene	1.6U	ug/kg
Acetone	3.00J	ug/kg	Bromobenzene	1.6U	ug/kg
Chloroform	1.6U	ug/kg	Toluene	1.6U	ug/kg
Benzene	1.6U	ug/kg	Chlorobenzene	1.6U	ug/kg
1,1,1-Trichloroethane	1.6U	ug/kg	1,2,4-Trichlorobenzene	1.6UJ	ug/kg
Bromomethane	1.6U	ug/kg	Dibromochloromethane	1.6U	ug/kg
Chloromethane	1.6U	ug/kg	Tetrachloroethene	1.6U	ug/kg
Dibromomethane	1.6U	ug/kg	Sec-Butylbenzene	1.6U	ug/kg
Bromochloromethane	1.6U	ug/kg	1,3-Dichloropropane	1.6U	ug/kg
Chloroethane	1.6U	ug/kg	Cis-1,2-Dichloroethene	1.6U	ug/kg
Vinyl Chloride	1.6U	ug/kg	trans-1,2-Dichloroethe+	1.6U	ug/kg
Methylene Chloride	8.10	ug/kg	1,3-Dichlorobenzene	1.6U	ug/kg
Carbon Disulfide	8.10	ug/kg	1,1-Dichloropropene	1.6U	ug/kg
Bromoform	1.6U	ug/kg	2-Hexanone	64.6UJ	ug/kg
Bromodichloromethane	1.6U	ug/kg	2,2-Dichloropropane	1.6U	ug/kg
1,1-Dichloroethane	1.6U	ug/kg	Ethane, 1,1,1,2-Tetrac+	1.6U	ug/kg
1,1-Dichloroethene	1.6U	ug/kg	Total Xylenes	4.8U	ug/kg
Trichlorofluoromethane	1.6U	ug/kg	m p-XYLENE	1.6U	ug/kg
Methane, Dichlorodiflu+	1.6U	ug/kg	cis-1,3-Dichloropropene	1.6U	ug/kg
1,2-Dichloropropane	1.6U	ug/kg	trans-1,3-Dichloroprop+	1.6U	ug/kg
2-Butanone	16.2UJ	ug/kg	p-BROMOFLUOROBENZENE	86	ug/kg
1,1,2-Trichloroethane	1.6U	ug/kg	FLUOROBENZENE	99	ug/kg
Ethene, trichloro-	1.6U	ug/kg	TOLUENE-D8	104	ug/kg
ETHANE, 1,1,2,2-TETRAC+	1.6U	ug/kg	1,2-DICHLOROBENZENE-D4	103	ug/kg
1,2,3-Trichlorobenzene	1.6UJ	ug/kg	d4-1,2-Dichloroethane	107	ug/kg
Hexachlorobutadiene	1.6U	ug/kg			
Napthalene	1.6U	ug/kg			
o-XYLENE	1.6U	ug/kg			
2-Chlorotoluene	1.6U	ug/kg			
1,2-Dichlorobenzene	1.6U	ug/kg			
1,2,4-Trimethylbenzene	1.6U	ug/kg			
1,2-Dibromo-3-chloropr+	1.6U	ug/kg			
1,2,3-Trichloropropane	1.6U	ug/kg			
Tert-Butylbenzene	1.6U	ug/kg			
Isopropylbenzene (Cume-	1.6U	ug/kg			
p-Isopropyltoluene	1.6U	ug/kg			
Ethylbenzene	1.6U	ug/kg			
BENZENE, ETHENYL-(STYR+	1.6U	ug/kg			
BENZENE, PROPYL-	1.6U	ug/kg			
Butylbenzene	1.6UJ	ug/kg			
4-Chlorotoluene	1.6U	ug/kg			
1,4-Dichlorobenzene	1.6U	ug/kg			
1,2-Dibromoethane (EDB)	1.6U	ug/kg			
1,2-Dichloroethane	1.6U	ug/kg			
4-Methyl-2-Pentanone(M+	16.2U	ug/kg			

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

laboratory: Ecology, Manchester

Sample No: 93 508118

Description: C14

Officer: JCC Account: D3100

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan	Sediment Result	Units
Carbon Tetrachloride	1.2U	ug/kg	1,3,5-Trimethylbenzene	1.2U	ug/kg
Acetone	18.0UJ	ug/kg	Bromobenzene	1.2U	ug/kg
Chloroform	0.20J*	ug/kg	Toluene	1.2U	ug/kg
Benzene	1.2U	ug/kg	Chlorobenzene	1.2U	ug/kg
1,1,1-Trichloroethane	1.2U	ug/kg	1,2,4-Trichlorobenzene	1.2UJ	ug/kg
Bromomethane	1.2U	ug/kg	Dibromochloromethane	1.2U	ug/kg
Chloromethane	1.2U	ug/kg	Tetrachloroethene	1.2U	ug/kg
Dibromomethane	1.2U	ug/kg	Sec-Butylbenzene	1.2U	ug/kg
Bromochloromethane	1.2U	ug/kg	1,3-Dichloropropane	1.2U	ug/kg
Chloroethane	1.2U	ug/kg	Cis-1,2-Dichloroethene	1.2U	ug/kg
Vinyl Chloride	1.9UJ	ug/kg	trans-1,2-Dichloroethe+	1.2U	ug/kg
Methylene Chloride	1.2UJ	ug/kg	1,3-Dichlorobenzene	1.2U	ug/kg
Carbon Disulfide	1.2U	ug/kg	1,1-Dichloropropene	1.2U	ug/kg
Bromoform	1.2U	ug/kg	2-Hexanone	47.7UJ	ug/kg
Bromodichloromethane	1.2U	ug/kg	2,2-Dichloropropane	1.2U	ug/kg
1,1-Dichloroethane	1.2U	ug/kg	Ethane, 1,1,1,2-Tetrac+	1.2U	ug/kg
1,1-Dichloroethene	1.2U	ug/kg	Total Xylenes	3.6U	ug/kg
Trichlorofluoromethane	1.2U	ug/kg	m p-XYLENE	1.2U	ug/kg
Methane, Dichlorodiflu+	1.2U	ug/kg	cis-1,3-Dichloropropene	1.2U	ug/kg
1,2-Dichloropropane	1.2U	ug/kg	trans-1,3-Dichloroprop+	1.2U	ug/kg
2-Butanone	11.9UJ	ug/kg	p-BROMOFLUOROBENZENE	93	ug/kg
1,1,2-Trichloroethane	1.2U	ug/kg	FLUOROBENZENE	97	ug/kg
Ethene, trichloro-	1.2U	ug/kg	TOLUENE-D8	97	ug/kg
ETHANE, 1,1,2,2-TETRAC+	1.2U	ug/kg	1,2-DICHLOROBENZENE-D4	106	ug/kg
1,2,3-Trichlorobenzene	1.2UJ	ug/kg	d4-1,2-Dichloroethane	102	ug/kg
Hexachlorobutadiene	1.2U	ug/kg			
Napthalene	1.2U	ug/kg			
o-XYLENE	1.2U	ug/kg			
2-Chlorotoluene	1.2U	ug/kg			
1,2-Dichlorobenzene	1.2U	ug/kg			
1,2,4-Trimethylbenzene	1.2U	ug/kg			
1,2-Dibromo-3-chloropr+	1.2U	ug/kg			
1,2,3-Trichloropropane	1.2U	ug/kg			
Tert-Butylbenzene	1.2U	ug/kg			
Isopropylbenzene (Cume-	1.2U	ug/kg			
p-Isopropyltoluene	1.2U	ug/kg			
Ethylbenzene	1.2U	ug/kg			
BENZENE, ETHENYL-(STYR+	1.2U	ug/kg			
BENZENE, PROPYL-	1.2U	ug/kg			
Butylbenzene	1.2UJ	ug/kg			
4-Chlorotoluene	1.2U	ug/kg			
1,4-Dichlorobenzene	1.2U	ug/kg			
1,2-Dibromoethane (EDB)	1.2U	ug/kg			
1,2-Dichloroethane	1.2U	ug/kg			
4-Methyl-2-Pentanone(M+	11.9U	ug/kg			

(Sample Complete)

Project: DOE-932Y MUKILTSO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Source: Sediment (General)

Sample No: 93 508119

Description: C15

Begin Date: 93/12/02

PP Scan	Sediment Result Units	VOA - PP Scan *** Continued ***	Sediment Result Units
Carbon Tetrachloride	1.5U ug/kg	1,3,5-Trimethylbenzene	1.5U ug/kg
Benzene	18.1UJ ug/kg	Bromobenzene	1.5U ug/kg
Chloroform	0.096J* ug/kg	Toluene	1.5U ug/kg
Benzene	1.5U ug/kg	Chlorobenzene	1.5U ug/kg
1,1-Trichloroethane	1.5U ug/kg	1,2,4-Trichlorobenzene	1.5UJ ug/kg
Bromomethane	1.5U ug/kg	Dibromochloromethane	1.5U ug/kg
Bromomethane	1.5U ug/kg	Tetrachloroethene	1.5U ug/kg
Bromochloromethane	1.5U ug/kg	Sec-Butylbenzene	1.5U ug/kg
Bromoethane	1.5U ug/kg	1,3-Dichloropropane	1.5U ug/kg
vinyl Chloride	3.8UJ ug/kg	Cis-1,2-Dichloroethene	1.5U ug/kg
Ethylene Chloride	1.4UJ ug/kg	trans-1,2-Dichloroethene	1.5U ug/kg
Carbon Disulfide	1.5U ug/kg	1,3-Dichlorobenzene	1.5U ug/kg
Bromoform	1.5U ug/kg	1,1-Dichloropropene	1.5U ug/kg
1,1-Dichloroethane	1.5U ug/kg	2-Hexanone	59.2UJ ug/kg
1,1-Dichloroethene	1.5U ug/kg	2,2-Dichloropropane	1.5U ug/kg
Chlorofluoromethane	1.5U ug/kg	Ethane, 1,1,1,2-Tetrachloro	1.5U ug/kg
Ethane, Dichlorodifluoro	1.5U ug/kg	Total Xylenes	4.4U ug/kg
1,1-Dichloropropane	1.5U ug/kg	m,p-XYLENE	1.5U ug/kg
Butanone	14.8UJ ug/kg	cis-1,3-Dichloropropene	1.5U ug/kg
1,2-Trichloroethane	1.5U ug/kg	trans-1,3-Dichloropropene	1.5U ug/kg
Benzene, trichloro-	1.5U ug/kg	p-BROMOFLUOROBENZENE	91 ug/kg
ETHANE, 1,1,2,2-TETRACHLORO-	1.5U ug/kg	FLUOROBENZENE	100 ug/kg
1,3-Trichlorobenzene	1.5UJ ug/kg	TOLUENE-D8	97 ug/kg
1,4-Dichlorobutadiene	1.5U ug/kg	1,2-DICHLOROBENZENE-D4	98 ug/kg
Phthalene	1.5U ug/kg	d4-1,2-Dichloroethane	98 ug/kg
XYLENE	1.5U ug/kg		
Chlorotoluene	1.5U ug/kg		
1,2-Dichlorobenzene	1.5U ug/kg		
2,4-Trimethylbenzene	1.5U ug/kg		
2-Dibromo-3-chloropropane	1.5U ug/kg		
2,3-Trichloropropane	1.5U ug/kg		
tert-Butylbenzene	1.5U ug/kg		
Isopropylbenzene (Cumene)	1.5U ug/kg		
Isopropyltoluene	1.5U ug/kg		
Ethylbenzene	1.5U ug/kg		
BENZENE, ETHENYL-(STYRENE)	1.5U ug/kg		
BENZENE, PROPENYL-	1.5U ug/kg		
Ethylbenzene	1.5UJ ug/kg		
Chlorotoluene	1.5U ug/kg		
1,4-Dichlorobenzene	1.5U ug/kg		
2-Dibromoethane (EDB)	1.5U ug/kg		
2-Dichloroethane	1.5U ug/kg		
Methyl-2-Pentanone(M2P)	14.8U ug/kg		

(Sample Complete)

JAN-94  
10:51

Project: DOE-932Y MUKILTSO SEDIMENTS

Officer: JCC

Account: D3100

Laboratory: Ecology, Manchester

Source: Sediment (General)

Sample No: 93 508120

Description: C16

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result Units	VOA - PP Scan *** Continued ***	Sediment Result Units
Carbon Tetrachloride	1.4U ug/kg	1,3,5-Trimethylbenzene	1.4U ug/kg
Benzene	74.0UJ ug/kg	Bromobenzene	1.4U ug/kg
Chloroform	0.24J* ug/kg	Toluene	1.4U ug/kg
Benzene	1.4U ug/kg	Chlorobenzene	1.4U ug/kg
1,1-Trichloroethane	1.4U ug/kg	1,2,4-Trichlorobenzene	1.4UJ ug/kg
Bromomethane	1.4U ug/kg	Dibromochloromethane	1.4U ug/kg
Bromomethane	1.4U ug/kg	Tetrachloroethene	1.4U ug/kg
Bromochloromethane	1.4U ug/kg	Sec-Butylbenzene	1.4U ug/kg
Bromoethane	1.4U ug/kg	1,3-Dichloropropane	1.4U ug/kg
vinyl Chloride	1.4U ug/kg	Cis-1,2-Dichloroethene	1.4U ug/kg
Ethylene Chloride	3.8UJ ug/kg	trans-1,2-Dichloroethene	1.4U ug/kg
Carbon Disulfide	1.4U ug/kg	1,3-Dichlorobenzene	1.4U ug/kg
Bromoform	1.4U ug/kg	1,1-Dichloropropene	1.4U ug/kg
1,1-Dichloroethane	1.4U ug/kg	2-Hexanone	55.9UJ ug/kg
1,1-Dichloroethene	1.4U ug/kg	2,2-Dichloropropane	1.4U ug/kg
1,1-Dichloroethene	1.4U ug/kg	Ethane, 1,1,1,2-Tetrachloro	1.4U ug/kg
Chlorofluoromethane	1.4U ug/kg	Total Xylenes	4.2U ug/kg
Ethane, Dichlorodifluoro	1.4U ug/kg	m,p-XYLENE	1.4U ug/kg
1,1-Dichloropropane	1.4U ug/kg	cis-1,3-Dichloropropene	1.4U ug/kg
Butanone	14.0UJ ug/kg	trans-1,3-Dichloropropene	1.4U ug/kg
1,2-Trichloroethane	1.4U ug/kg	p-BROMOFLUOROBENZENE	93 ug/kg
Benzene, trichloro-	1.4U ug/kg	FLUOROBENZENE	101 ug/kg
ETHANE, 1,1,2,2-TETRACHLORO-	1.4U ug/kg	TOLUENE-D8	104 ug/kg
1,3-Trichlorobenzene	1.4UJ ug/kg	1,2-DICHLOROBENZENE-D4	96 ug/kg
1,4-Dichlorobutadiene	1.4U ug/kg	d4-1,2-Dichloroethane	103 ug/kg
Phthalene	1.4U ug/kg		
XYLENE	1.4U ug/kg		
Chlorotoluene	1.4U ug/kg		
1,2-Dichlorobenzene	1.4U ug/kg		
2,4-Trimethylbenzene	1.4U ug/kg		
2-Dibromo-3-chloropropane	1.4U ug/kg		
2,3-Trichloropropane	1.4U ug/kg		
tert-Butylbenzene	1.4U ug/kg		
Isopropylbenzene (Cumene)	1.4U ug/kg		
Isopropyltoluene	1.4U ug/kg		
Ethylbenzene	1.4U ug/kg		
BENZENE, ETHENYL-(STYRENE)	1.4U ug/kg		
BENZENE, PROPENYL-	1.4UJ ug/kg		
Ethylbenzene	1.4U ug/kg		
Chlorotoluene	1.4U ug/kg		
1,4-Dichlorobenzene	1.4U ug/kg		
1,2-Dibromoethane (EDB)	1.4U ug/kg		
2-Dichloroethane	1.4U ug/kg		
Methyl-2-Pentanone(M2P)	14.0U ug/kg		

(Sample Complete)

ect: DOB-932Y MUKILTEO SEDIMENTS

atory: Ecology, Manchester

le No: 93 508122

Description: S1

Source: Sediment (General)

egin Date: 93/12/02

PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.70	ug/kg	1,3,5-Trimethylbenzene	1.70	ug/kg
ozone	25.20J	ug/kg	Bromobenzene	1.70	ug/kg
roform	1.70	ug/kg	Toluene	1.70	ug/kg
ene	1.70	ug/kg	Chlorobenzene	1.70	ug/kg
1,1-Trichloroethane	1.70	ug/kg	1,2,4-Trichlorobenzene	1.70J	ug/kg
omomethane	1.70	ug/kg	Dibromochloromethane	1.70	ug/kg
loromethane	1.70	ug/kg	Tetrachloroethene	1.70	ug/kg
romomethane	1.70	ug/kg	Sec-Butylbenzene	1.70	ug/kg
omochloromethane	1.70	ug/kg	1,3-Dichloropropane	1.70	ug/kg
oroethane	1.70	ug/kg	Cis-1,2-Dichloroethene	1.70	ug/kg
yl Chloride	1.70	ug/kg	trans-1,2-Dichloroethene	1.70	ug/kg
hylene Chloride	9.20J	ug/kg	1,3-Dichlorobenzene	1.70	ug/kg
non Disulfide	1.60J	ug/kg	1,1-Dichloropropene	1.70	ug/kg
oform	1.70	ug/kg	2-Hexanone	64.50J	ug/kg
omodichloromethane	1.70	ug/kg	2,2-Dichloropropane	1.70	ug/kg
Dichloroethane	1.70	ug/kg	Ethane, 1,1,1,2-Tetrac	1.70	ug/kg
Dichloroethene	1.70	ug/kg	Total Xylenes	5.00	ug/kg
chlorofluoromethane	1.70	ug/kg	m p-XYLENE	1.70	ug/kg
Hane, Dichlorodiflu-	1.70	ug/kg	cis-1,3-Dichloropropene	1.70	ug/kg
Dichloropropane	1.70	ug/kg	trans-1,3-Dichloroprop	1.70	ug/kg
utanone	16.60J	ug/kg	p-BROMOFLUOROBENZENE	91	ug/kg
1,2-Trichloroethane	1.70	ug/kg	FLUOROBENZENE	100	ug/kg
ene, trichloro-	1.70	ug/kg	TOLUENE-D8	98	ug/kg
ANE, 1,1,2,2-TETRAC+	1.70	ug/kg	1,2-DICHLOROENZENE-D4	100	ug/kg
3-Trichlorobenzene	1.70J	ug/kg	d4-1,2-Dichloroethane	100	ug/kg
achlorobutadiene	1.70	ug/kg			
hthalene	1.70	ug/kg			
YLENE	1.70	ug/kg			
chlorotoluene	1.70	ug/kg			
Dichlorobenzene	1.70	ug/kg			
4-Trimethylbenzene	1.70	ug/kg			
Dibromo-3-chloropr+	1.70	ug/kg			
3-Trichloropropane	1.70	ug/kg			
rt-Butylbenzene	1.70	ug/kg			
propylbenzene (Cume-	1.70	ug/kg			
isopropyltoluene	1.70	ug/kg			
ylbenzene	1.70	ug/kg			
ZENE, ETHENYL-(STYR-	1.70	ug/kg			
ZENE, PROPYL-	1.70	ug/kg			
ylbenzene	1.70J	ug/kg			
chlorotoluene	1.70	ug/kg			
Dichlorobenzene	1.70	ug/kg			
Dibromoethane (EDB)	1.70	ug/kg			
Dichloroethane	1.70	ug/kg			
Methyl-2-Pentanone(M-	16.60	ug/kg			

VOA - PP Scan	Sediment Result	Units
Tent Ident - VOA Sca		
CYCLOTRISILOXANE, HEXA+	3.5NJ*	ug/kg
CYCLOTETRASILOXANE, OC+	1.1NJ*	ug/kg

(Sample Complete)

Project: DOB-932Y MUKILTEO SEDIMENTS

Officer: JCC Account: D3100

Laboratory: Ecology, Manchester

Sample No: 93 508123

Description: S2

Source: Sediment (General)

Begin Date: 93/12/02

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.40	ug/kg	1,3,5-Trimethylbenzene	1.40	ug/kg
etone	21.80J	ug/kg	Bromobenzene	1.40	ug/kg
loroform	0.22J*	ug/kg	Toluene	1.40	ug/kg
nzene	1.40	ug/kg	Chlorobenzene	1.40	ug/kg
1,1-Trichloroethane	1.40	ug/kg	1,2,4-Trichlorobenzene	1.40J	ug/kg
omomethane	1.40	ug/kg	Dibromochloromethane	1.40	ug/kg
loromethane	1.40	ug/kg	Tetrachloroethene	1.40	ug/kg
bromomethane	1.40	ug/kg	Sec-Butylbenzene	1.40	ug/kg
omochloromethane	1.40	ug/kg	1,3-Dichloropropane	1.40	ug/kg
oroethane	1.40	ug/kg	Cis-1,2-Dichloroethene	1.40	ug/kg
nyl Chloride	1.40	ug/kg	trans-1,2-Dichloroethene	1.40	ug/kg
ethylene Chloride	2.80J	ug/kg	1,3-Dichlorobenzene	1.40	ug/kg
arbon Disulfide	1.20J	ug/kg	1,1-Dichloropropene	1.40	ug/kg
omoform	1.40	ug/kg	2-Hexanone	55.50J	ug/kg
omodichloromethane	1.40	ug/kg	2,2-Dichloropropane	1.40	ug/kg
Dichloroethane	1.40	ug/kg	Ethane, 1,1,1,2-Tetrac	1.40	ug/kg
Dichloroethene	1.40	ug/kg	Total Xylenes	4.20	ug/kg
chlorofluoromethane	1.40	ug/kg	m p-XYLENE	1.40	ug/kg
Hane, Dichlorodiflu-	1.40	ug/kg	cis-1,3-Dichloropropene	1.40	ug/kg
Dichloropropane	1.40	ug/kg	trans-1,3-Dichloroprop	88	ug/kg
Butanone	13.90J	ug/kg	p-BROMOFLUOROBENZENE	101	ug/kg
1,2-Trichloroethane	1.40	ug/kg	FLUOROBENZENE	101	ug/kg
ene, trichloro-	1.40	ug/kg	TOLUENE-D8	101	ug/kg
HANE, 1,1,2,2-TETRAC+	1.40	ug/kg	1,2-DICHLOROENZENE-D4	105	ug/kg
2,3-Trichlorobenzene	1.40J	ug/kg	d4-1,2-Dichloroethane	102	ug/kg
achlorobutadiene	1.40	ug/kg			
phthalene	1.40	ug/kg			
CHLOROTOLUENE	1.40	ug/kg			
Dichlorobenzene	1.40	ug/kg			
4-Trimethylbenzene	1.40	ug/kg			
Dibromo-3-chloropr+	1.40	ug/kg			
3-Trichloropropane	1.40	ug/kg			
rt-Butylbenzene	1.40	ug/kg			
propylbenzene (Cume-	1.40	ug/kg			
isopropyltoluene	1.40	ug/kg			
ylbenzene	1.40	ug/kg			
ENZENE, ETHENYL-(STYR-	1.40	ug/kg			
ENZENE, PROPYL-	1.40	ug/kg			
ylbenzene	1.40J	ug/kg			
chlorotoluene	1.40	ug/kg			
Dichlorobenzene	1.40	ug/kg			
Dibromoethane (EDB)	1.40	ug/kg			
Dichloroethane	1.40	ug/kg			
Methyl-2-Pentanone(M-	13.90	ug/kg			

VOA - PP Scan	Sediment Result	Units
Tent Ident - VOA Sca		
CYCLOTRISILOXANE, HEXA+	2.6NJ*	ug/kg

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS  
Laboratory: Ecology, Manchester  
Sample No: 93 508124 Description: S3  
Begin Date: 93/12/02

Source: Sediment (General)

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.30	ug/kg	1,3,5-Trimethylbenzene	1.30	ug/kg
Acetone	11.60J	ug/kg	Bromobenzene	1.30	ug/kg
Chloroform	1.30	ug/kg	Toluene	1.8 *	ug/kg
Benzene	1.30	ug/kg	Chlorobenzene	1.30	ug/kg
1,1,1-Trichloroethane	1.30	ug/kg	1,2,4-Trichlorobenzene	1.30J	ug/kg
Bromomethane	1.30	ug/kg	Dibromochloromethane	1.30	ug/kg
Chloromethane	1.30	ug/kg	Tetrachloroethene	1.30	ug/kg
Ibromomethane	1.30	ug/kg	Sec-Butylbenzene	1.30	ug/kg
Bromochloromethane	1.30	ug/kg	1,3-Dichloropropane	1.30	ug/kg
Chloroethane	1.30	ug/kg	Cis-1,2-Dichloroethene	1.30	ug/kg
Vinyl Chloride	6.30	ug/kg	trans-1,2-Dichloroethene	1.30	ug/kg
Methylene Chloride	6.30	ug/kg	1,3-Dichlorobenzene	1.30	ug/kg
Carbon Disulfide	6.30	ug/kg	1,1-Dichloropropene	1.30	ug/kg
Bromoform	1.30	ug/kg	2-Hexanone	50.40J	ug/kg
Bromodichloromethane	1.30	ug/kg	2,2-Dichloropropane	1.30	ug/kg
1,1-Dichloroethane	1.30	ug/kg	Ethane, 1,1,1,2-Tetrac+	1.30	ug/kg
1,1-Dichloroethene	1.30	ug/kg	Total Xylenes	3.80	ug/kg
Trichlorofluoromethane	1.30	ug/kg	m p-XYLENE	1.30	ug/kg
Methane, Dichlorodifluo-	1.30	ug/kg	cis-1,3-Dichloropropene	1.30	ug/kg
1,2-Dichloropropane	1.30	ug/kg	trans-1,3-Dichloroprop+	1.30	ug/kg
2-Butanone	12.60	ug/kg	p-BROMOFLUOROENZENE	88	ug/kg
1,1,2-Trichloroethane	1.30	ug/kg	FLUROENZENE	102	ug/kg
Ethene, trichloro-	1.30	ug/kg	TOLUENE-D8	100	ug/kg
ETHANE, 1,1,2,2-TETRAC+	1.30	ug/kg	1,2-DICHLOROENZENE-D4	100	ug/kg
1,2,3-Trichlorobenzene	1.30	ug/kg	d4-1,2-Dichloroethane	111	ug/kg
Hexachlorobutadiene	1.30	ug/kg			
Naphthalene	1.30	ug/kg			
o-XYLENE	1.30	ug/kg			
2-Chlorotoluene	1.30	ug/kg			
1,2-Dichlorobenzene	1.30	ug/kg			
1,2,4-Trimethylbenzene	1.30	ug/kg			
1,2-Dibromo-3-chloropr+	1.30	ug/kg			
Tert-Butylbenzene	1.30	ug/kg			
Isopropylbenzene (Cume-	1.30	ug/kg			
p-Isopropyltoluene	1.30	ug/kg			
Ethylbenzene	1.30	ug/kg			
BENZENE, ETHENYL-(STYR-	1.30	ug/kg			
BENZENE, PROPYL-	1.30	ug/kg			
Butylbenzene	1.30	ug/kg			
4-Chlorotoluene	1.30	ug/kg			
1,4-Dichlorobenzene	1.30	ug/kg			
1,2-Dibromoethane (EDB)	1.30	ug/kg			
1,2-Dichloroethane	1.30	ug/kg			
4-Methyl-2-Pentanone(M-	12.60	ug/kg			

(Sample Complete)

61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

JAN-94  
10:51

Project: DOE-932Y MUKILTEO SEDIMENTS  
Laboratory: Ecology, Manchester  
Sample No: 93 508125 Description: S4  
Begin Date: 93/12/02

Source: Sediment (General)

VOA - PP Scan	Sediment Result	Units	VOA - PP Scan *** Continued ***	Sediment Result	Units
Carbon Tetrachloride	1.20	ug/kg	1,3,5-Trimethylbenzene	1.20	ug/kg
Acetone	55.50J	ug/kg	Bromobenzene	1.20	ug/kg
Chloroform	0.54J	ug/kg	Toluene	1.20	ug/kg
Benzene	1.20	ug/kg	Chlorobenzene	1.20	ug/kg
1,1,1-Trichloroethane	1.20	ug/kg	1,2,4-Trichlorobenzene	1.20J	ug/kg
Bromomethane	1.20	ug/kg	Dibromochloromethane	1.20	ug/kg
Chloromethane	1.20	ug/kg	Tetrachloroethene	1.20	ug/kg
Ibromomethane	1.20	ug/kg	Sec-Butylbenzene	1.20	ug/kg
Bromochloromethane	1.20	ug/kg	1,3-Dichloropropane	1.20	ug/kg
Chloroethane	1.20	ug/kg	Cis-1,2-Dichloroethene	1.20	ug/kg
Vinyl Chloride	1.20	ug/kg	trans-1,2-Dichloroethene	1.20	ug/kg
Methylene Chloride	NAR	ug/kg	1,3-Dichlorobenzene	1.20	ug/kg
Carbon Disulfide	1.10J	ug/kg	1,1-Dichloropropene	1.20	ug/kg
Bromoform	1.20	ug/kg	2-Hexanone	48.40J	ug/kg
Bromodichloromethane	1.20	ug/kg	2,2-Dichloropropane	1.20	ug/kg
1,1-Dichloroethane	1.20	ug/kg	Ethane, 1,1,1,2-Tetrac+	1.20	ug/kg
1,1-Dichloroethene	1.20	ug/kg	Total Xylenes	3.60	ug/kg
Trichlorofluoromethane	1.20	ug/kg	m p-XYLENE	1.20	ug/kg
Methane, Dichlorodifluo-	1.20	ug/kg	cis-1,3-Dichloropropene	1.20	ug/kg
1,2-Dichloropropane	1.20	ug/kg	trans-1,3-Dichloroprop+	1.20	ug/kg
2-Butanone	12.10J	ug/kg	p-BROMOFLUROENZENE	92	ug/kg
1,1,2-Trichloroethane	1.20	ug/kg	FLUROENZENE	103	ug/kg
Ethene, trichloro-	1.20	ug/kg	TOLUENE-D8	102	ug/kg
ETHANE, 1,1,2,2-TETRAC+	1.20	ug/kg	1,2-DICHLOROENZENE-D4	108	ug/kg
1,2,3-Trichlorobenzene	1.20J	ug/kg	d4-1,2-Dichloroethane	99	ug/kg
Hexachlorobutadiene	1.20	ug/kg			
Naphthalene	1.20	ug/kg			
o-XYLENE	1.20	ug/kg			
2-Chlorotoluene	1.20	ug/kg			
1,2-Dichlorobenzene	1.20	ug/kg			
1,2,4-Trimethylbenzene	1.20	ug/kg			
1,2-Dibromo-3-chloropr+	1.20	ug/kg			
1,2,3-Trichloropropane	1.20	ug/kg			
Tert-Butylbenzene	1.20	ug/kg			
Isopropylbenzene (Cume-	1.20	ug/kg			
p-Isopropyltoluene	1.20	ug/kg			
Ethylbenzene	1.20	ug/kg			
BENZENE, ETHENYL-(STYR-	1.20	ug/kg			
BENZENE, PROPYL-	1.20	ug/kg			
Butylbenzene	1.20J	ug/kg			
4-Chlorotoluene	1.20	ug/kg			
1,4-Dichlorobenzene	1.20	ug/kg			
1,2-Dibromoethane (EDB)	1.20	ug/kg			
1,2-Dichloroethane	1.20	ug/kg			
4-Methyl-2-Pentanone(M-	12.10	ug/kg			

(Sample Complete)





6-JAN-97  
14:30:51

Washington State Department of Ecology  
Sample/Project Analysis Results

P# 19

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: VBS3344

Tent Ident - VOA Sca	Sediment
Blank #1	Result Units
TRIFLUOROMETHANE	16.9NJ* ug/kg
CYCLOTETRAHILOXANE, OC*	10.9NJ* ug/kg
ARSENIC ACID, TRIS(TR*	3.2NJ* ug/kg

(Sample Complete)

6-JAN-97  
14:30:51

Washington State Department of Ecology  
Sample/Project Analysis Results

P# 20

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: VBS3347

Tent Ident - VOA Sca	Sediment
Blank #2	Result Units
CYCLOTRISILOXANE, HEXA*	1.3NJ* ug/kg

(Sample Complete)

14:30:51

Project: DOE-912Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: VBS3348

Tent Ident	VOA Sca	Sediment	Result	Units
Blank #1				
CYCLOTRISILOXANE, HEXA			1.2NJ*	ug/kg
CYCLOTETRASILOXANE, OC			1.3NJ*	ug/kg

(Sample Complete)

6-JAN-94  
14:30:51

Project: DOE-912Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: VBW3350

Tent Ident	VOA Sca	Sediment	Result	Units
Blank #2				
CYCLOTETRASILOXANE, OC			0.94NJ*	ug/kg

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: vbs3344

VOA - PP Scan Blank #1	Sediment Result Units	VOA - PP Scan *** Continued *** Blank #1	Sediment Result Units
Carbon Tetrachloride	1.00 ug/kg	1,3,5-Trimethylbenzene	1.00 ug/kg
Acetone	1.2J* ug/kg	Bromobenzene	1.00 ug/kg
Chloroform	1.00 ug/kg	Toluene	0.12J* ug/kg
Benzene	0.094J* ug/kg	Chlorobenzene	0.16J* ug/kg
1,1,1-Trichloroethane	0.065J* ug/kg	1,2,4-Trichlorobenzene	0.62J* ug/kg
Bromomethane	1.00 ug/kg	Dibromochloromethane	1.00 ug/kg
Chloromethane	1.00 ug/kg	Tetrachloroethene	1.00 ug/kg
Ibromomethane	1.00 ug/kg	Sec-Butylbenzene	1.00 ug/kg
Bromochloromethane	1.00 ug/kg	1,3-Dichloropropane	1.00 ug/kg
Chloroethane	1.00 ug/kg	Cis-1,2-Dichloroethene	1.00 ug/kg
Vinyl Chloride	1.00 ug/kg	trans-1,2-Dichloroethene	1.00 ug/kg
Methylene Chloride	1.3J* ug/kg	1,3-Dichlorobenzene	0.12J* ug/kg
Carbon Disulfide	2.1J* ug/kg	1,1-Dichloropropene	1.00 ug/kg
Bromoform	1.00 ug/kg	2-Hexanone	40.00J ug/kg
Bromodichloromethane	1.00 ug/kg	2,2-Dichloropropane	1.00 ug/kg
1,1-Dichloroethane	1.00 ug/kg	Ethane, 1,1,1,2-Tetrac.	1.00 ug/kg
1,1-Dichloroethene	1.00 ug/kg	Total Xylenes	0.064J* ug/kg
Trichlorofluoromethane	1.00 ug/kg	m p-XYLENE	0.064J* ug/kg
Methane, Dichlorodiflu.	1.00 ug/kg	cis-1,3-Dichloropropene	1.00 ug/kg
1,2-Dichloropropane	1.00 ug/kg	trans-1,3-Dichloroprop.	1.00 ug/kg
2-Butanone	10.00 ug/kg	p-BROMOFLUOROENZENE	94 ug/kg
1,1,2-Trichloroethane	1.00 ug/kg	FLUROENZENE	104 ug/kg
Ethene, trichloro-	0.081J* ug/kg	TOLUENE-D8	102 ug/kg
ETHANE, 1,1,2,2-TETRAC.	1.00 ug/kg	1,2-DICHLOROENZENE-D4	112 ug/kg
1,2,3-Trichlorobenzene	1.0J* ug/kg	d4-1,2-Dichloroethane	112 ug/kg
Hexachlorobutadiene	0.72J* ug/kg		
Napthalene	1.2 * ug/kg		
o-XYLENE	1.00 ug/kg		
2-Chlorotoluene	1.00 ug/kg		
1,2-Dichlorobenzene	0.20J* ug/kg		
1,2,4-Trimethylbenzene	0.19J* ug/kg		
1,2-Dibromo-3-chloropr.	1.00 ug/kg		
1,2,3-Trichloropropane	1.00 ug/kg		
Tert-Butylbenzene	1.00 ug/kg		
Isopropylbenzene (Cume.)	1.00 ug/kg		
p-Isopropyltoluene	0.23J* ug/kg		
Ethylbenzene	1.00 ug/kg		
BENZENE, ETHENYL-(STYR-	1.00J ug/kg		
BENZENE, PROPYL-	1.00 ug/kg		
Butylbenzene	0.30J* ug/kg		
4-Chlorotoluene	1.00 ug/kg		
1,4-Dichlorobenzene	0.37J* ug/kg		
1,2-Dibromoethane (EDB)	1.00 ug/kg		
1,2-Dichloroethane	1.00 ug/kg		
4-Methyl-2-Pentanone(M.	10.00 ug/kg		

(Sample Complete)

5-JAN-94  
4:30:51

Washington State Department of Ecology  
Sample/Project Analysis ults

Pa 24

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: vbs3347

VOA - PP Scan Blank #2	Sediment Result Units	VOA - PP Scan *** Continued *** Blank #2	Sediment Result Units
Carbon Tetrachloride	1.00 ug/kg	1,3,5-Trimethylbenzene	1.00 ug/kg
Acetone	20.2 * ug/kg	Bromobenzene	1.00 ug/kg
Chloroform	1.00 ug/kg	Toluene	0.23J* ug/kg
Benzene	0.31J* ug/kg	Chlorobenzene	0.16J* ug/kg
1,1,1-Trichloroethane	1.00 ug/kg	1,2,4-Trichlorobenzene	0.62J* ug/kg
Bromomethane	1.00 ug/kg	Dibromochloromethane	1.00 ug/kg
Chloromethane	1.00 ug/kg	Tetrachloroethene	1.00 ug/kg
Ibromomethane	1.00 ug/kg	Sec-Butylbenzene	1.00 ug/kg
Bromochloromethane	1.00 ug/kg	1,3-Dichloropropane	1.00 ug/kg
Chloroethane	1.00 ug/kg	Cis-1,2-Dichloroethene	1.00 ug/kg
Vinyl Chloride	1.00 ug/kg	trans-1,2-Dichloroethene	1.00 ug/kg
Methylene Chloride	1.2J* ug/kg	1,3-Dichlorobenzene	1.00 ug/kg
Carbon Disulfide	1.4J* ug/kg	1,1-Dichloropropene	1.00 ug/kg
Bromoform	1.00 ug/kg	2-Hexanone	40.00J ug/kg
Bromodichloromethane	1.00 ug/kg	2,2-Dichloropropane	1.00 ug/kg
1,1-Dichloroethane	1.00 ug/kg	Ethane, 1,1,1,2-Tetrac.	1.00 ug/kg
1,1-Dichloroethene	1.00 ug/kg	Total Xylenes	0.94J* ug/kg
Trichlorofluoromethane	1.00 ug/kg	m p-XYLENE	0.38J* ug/kg
Methane, Dichlorodiflu.	1.00 ug/kg	cis-1,3-Dichloropropene	1.00 ug/kg
1,2-Dichloropropane	1.00 ug/kg	trans-1,3-Dichloroprop.	1.00 ug/kg
2-Butanone	10.00 ug/kg	p-BROMOFLUROENZENE	90 ug/kg
1,1,2-Trichloroethane	1.00 ug/kg	FLUROENZENE	101 ug/kg
Ethene, trichloro-	0.075J* ug/kg	TOLUENE-D8	100 ug/kg
ETHANE, 1,1,2,2-TETRAC.	1.00 ug/kg	1,2-DICHLOROENZENE-D4	108 ug/kg
1,2,3-Trichlorobenzene	0.81J* ug/kg	d4-1,2-Dichloroethane	101 ug/kg
Hexachlorobutadiene	0.64J* ug/kg		
Napthalene	1.3 * ug/kg		
o-XYLENE	0.16J* ug/kg		
2-Chlorotoluene	1.00 ug/kg		
1,2-Dichlorobenzene	1.00 ug/kg		
1,2,4-Trimethylbenzene	0.46J* ug/kg		
1,2-Dibromo-3-chloropr.	1.00 ug/kg		
1,2,3-Trichloropropane	1.00 ug/kg		
Tert-Butylbenzene	1.00 ug/kg		
Isopropylbenzene (Cume.)	0.11J* ug/kg		
p-Isopropyltoluene	0.96J* ug/kg		
Ethylbenzene	0.16J* ug/kg		
BENZENE, ETHENYL-(STYR-	1.00 ug/kg		
BENZENE, PROPYL-	1.00 ug/kg		
Butylbenzene	0.37J* ug/kg		
4-Chlorotoluene	1.00 ug/kg		
1,4-Dichlorobenzene	1.00 ug/kg		
1,2-Dibromoethane (EDB)	1.00 ug/kg		
1,2-Dichloroethane	1.00 ug/kg		
4-Methyl-2-Pentanone(M.	10.00 ug/kg		

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: vbs3148

VOA - PP Scan Blank #1	Sediment Result Units	VOA - PP Scan *** Continued *** Blank #1	Sediment Result Units
Carbon Tetrachloride	1.00 ug/kg	1,3,5-Trimethylbenzene	1.00 ug/kg
Acetone	6.2J* ug/kg	Bromobenzene	1.00 ug/kg
Chloroform	1.00 ug/kg	Toluene	0.068J* ug/kg
Benzene	0.15J* ug/kg	Chlorobenzene	0.17J* ug/kg
1,1,1-Trichloroethane	1.00 ug/kg	1,2,4-Trichlorobenzene	0.49J* ug/kg
Bromomethane	1.00 ug/kg	Dibromochloromethane	1.00 ug/kg
Chloromethane	1.00 ug/kg	Tetrachloroethene	1.00 ug/kg
Dibromomethane	1.00 ug/kg	Sec-Butylbenzene	1.00 ug/kg
Bromochloromethane	1.00 ug/kg	1,3-Dichloropropane	1.00 ug/kg
Chloroethane	1.00 ug/kg	Cis-1,2-Dichloroethene	1.00 ug/kg
Vinyl Chloride	1.00 ug/kg	trans-1,2-Dichloroethe+	1.00 ug/kg
Methylene Chloride	2.0J* ug/kg	1,3-Dichlorobenzene	0.11J* ug/kg
Carbon Disulfide	0.92J* ug/kg	1,1-Dichloropropene	1.00 ug/kg
Bromoform	1.00 ug/kg	2-Hexanone	40.00J ug/kg
Bromodichloromethane	1.00 ug/kg	2,2-Dichloropropane	1.00 ug/kg
1,1-Dichloroethane	1.00 ug/kg	Ethane, 1,1,1,2-Tetrac+	1.00 ug/kg
1,1-Dichloroethene	1.00 ug/kg	Total Xylenes	3.00 ug/kg
Trichlorofluoromethane	1.00 ug/kg	m p-XYLENE	1.00 ug/kg
Methane, Dichlorodiflu+	1.00 ug/kg	cis-1,3-Dichloropropene	1.00 ug/kg
1,2-Dichloropropane	1.00 ug/kg	trans-1,3-Dichloroprop+	1.00 ug/kg
2-Butanone	10.00 ug/kg	p-BROMOFLUOROBENZENE	90 ug/kg Recov
1,1,2-Trichloroethane	1.00 ug/kg	FLUOROBENZENE	102 ug/kg Recov
Ethene, trichloro-	1.00 ug/kg	TOLUENE-D8	101 ug/kg Recov
ETHANE, 1,1,2,2-TETRAC+	1.00 ug/kg	1,2-DICHLOROENZENE-D4	96 ug/kg Recov
1,2,3-Trichlorobenzene	1.00 ug/kg	d4-1,2-Dichloroethane	101 ug/kg Recov
Hexachlorobutadiene	0.63J* ug/kg		
Naphthalene	1.4 * ug/kg		
o-XYLENE	1.00 ug/kg		
2-Chlorotoluene	1.00 ug/kg		
1,2-Dichlorobenzene	0.16J* ug/kg		
1,2,4-Trimethylbenzene	0.11J* ug/kg		
1,2-Dibromo-3-chloropr+	1.00 ug/kg		
1,2,3-Trichloropropane	1.00 ug/kg		
Tert-Butylbenzene	1.00 ug/kg		
Isopropylbenzene (Cume+	1.00 ug/kg		
p-Isopropyltoluene	1.00 ug/kg		
Ethylbenzene	1.00 ug/kg		
BENZENE, ETHENYL-(STYR+	1.00 ug/kg		
BENZENE, PROPYL-	1.00 ug/kg		
Butylbenzene	1.00 ug/kg		
4-Chlorotoluene	1.00 ug/kg		
1,4-Dichlorobenzene	0.26J* ug/kg		
1,2-Dibromoethane (EDB)	1.00 ug/kg		
1,2-Dichloroethane	1.00 ug/kg		
4-Methyl-2-Pentanone(M+	10.00 ug/kg		

(Sample Complete)

Project: DOE-932Y MUKILTEO SEDIMENTS

Officer: JCC

Account: D3100

Blank ID: vbw3350

VOA - PP Scan Blank #2	Sediment Result Units	VOA - PP Scan *** Continued *** Blank #2	Sediment Result Units
Carbon Tetrachloride	1.00 ug/kg	1,3,5-Trimethylbenzene	1.00 ug/kg
Acetone	6.9J* ug/kg	Bromobenzene	1.00 ug/kg
Chloroform	0.094J* ug/kg	Toluene	0.072J* ug/kg
Benzene	0.14J* ug/kg	Chlorobenzene	0.15J* ug/kg
1,1,1-Trichloroethane	1.00 ug/kg	1,2,4-Trichlorobenzene	1.00J ug/kg
Bromomethane	1.00 ug/kg	Dibromochloromethane	1.00 ug/kg
Chloromethane	1.00 ug/kg	Tetrachloroethene	1.00 ug/kg
Dibromomethane	1.00J ug/kg	Sec-Butylbenzene	1.00 ug/kg
Bromochloromethane	1.00 ug/kg	1,3-Dichloropropane	1.00J ug/kg
Chloroethane	1.00 ug/kg	Cis-1,2-Dichloroethene	1.00 ug/kg
Vinyl Chloride	1.00 ug/kg	trans-1,2-Dichloroethe+	1.00 ug/kg
Methylene Chloride	0.73J* ug/kg	1,3-Dichlorobenzene	1.00 ug/kg
Carbon Disulfide	0.81J* ug/kg	1,1-Dichloropropene	1.00 ug/kg
Bromoform	1.00J ug/kg	2-Hexanone	40.00J ug/kg
Bromodichloromethane	1.00 ug/kg	2,2-Dichloropropane	1.00 ug/kg
1,1-Dichloroethane	1.00 ug/kg	Ethane, 1,1,1,2-Tetrac+	1.00 ug/kg
1,1-Dichloroethene	1.00 ug/kg	Total Xylenes	3.00 ug/kg
Trichlorofluoromethane	1.00 ug/kg	m p-XYLENE	1.00 ug/kg
Methane, Dichlorodiflu+	1.00J ug/kg	cis-1,3-Dichloropropene	1.00 ug/kg
1,2-Dichloropropane	1.00 ug/kg	trans-1,3-Dichloroprop+	1.00J ug/kg
2-Butanone	10.00 ug/kg	p-BROMOFLUOROBENZENE	96 ug/kg Recov
1,1,2-Trichloroethane	1.00J ug/kg	FLUOROBENZENE	102 ug/kg Recov
Ethene, trichloro-	1.00 ug/kg	TOLUENE-D8	100 ug/kg Recov
ETHANE, 1,1,2,2-TETRAC+	1.00J ug/kg	1,2-DICHLOROENZENE-D4	102 ug/kg Recov
1,2,3-Trichlorobenzene	0.72J* ug/kg	1,2-DICHLOROETHANE-D4	94 ug/kg Recov
Hexachlorobutadiene	1.00 ug/kg		
Naphthalene	1.3J* ug/kg		
o-XYLENE	1.00 ug/kg		
2-Chlorotoluene	1.00 ug/kg		
1,2-Dichlorobenzene	1.00 ug/kg		
1,2,4-Trimethylbenzene	1.00 ug/kg		
1,2-Dibromo-3-chloropr+	1.00J ug/kg		
1,2,3-Trichloropropane	1.00J ug/kg		
Tert-Butylbenzene	1.00 ug/kg		
Isopropylbenzene (Cume+	1.00 ug/kg		
p-Isopropyltoluene	1.00 ug/kg		
Ethylbenzene	1.00 ug/kg		
BENZENE, ETHENYL-(STYR+	1.00 ug/kg		
BENZENE, PROPYL-	1.00 ug/kg		
Butylbenzene	1.00J ug/kg		
4-Chlorotoluene	1.00 ug/kg		
1,4-Dichlorobenzene	1.00 ug/kg		
1,2-Dibromoethane (EDB)	1.00J ug/kg		
1,2-Dichloroethane	1.00 ug/kg		
4-Methyl-2-Pentanone(M+	10.00J ug/kg		

(Sample Complete)