



The Geochemical and
Environmental Research Group

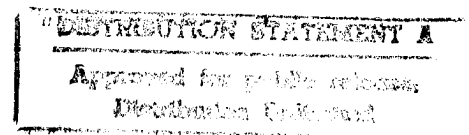
Texas A&M University

Monitoring Industrial
Contaminants Release to
Russian Arctic Rivers

Analytical Report

Office of Naval Research

1995



19960426 003

DMC QUALITY INSPECTION

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

I. BACKGROUND

Reports suggest that over 100 billion metric tons of mixed industrial wastes have been dumped or disposed of in the Northern and Arctic regions of the former Soviet Union in crude landfill facilities or directly into rivers. These materials were dumped in such a manner that they may have been transported to the Arctic ocean basin. Initial contaminant transport estimates from simple Russian physical hydrographic (circulation) models suggest transport across the Russian Arctic Ocean in 3-5 years. GERG has undertaken studies in two of the principal river systems transporting contaminants from large watersheds to the Arctic Ocean and Kara Seas, and has obtained samples of sediment and biota for analysis. In the current phase of the study, 20 surficial sediments down each of the axis of the Ob and Yenisey Rivers into the Kara Sea were analyzed for industrially derived trace organic compounds (hydrocarbons, pesticides, PCBs) and trace metals. Twenty sediments from the two rivers were subjected to high resolution GC/MS analysis for dioxins, furans and coplanar PCBs to determine the concentrations of these industrial pollutants. In addition, similar analyses were conducted on 10 tissue samples (fish and other invertebrate animals) down the axis of each river.

II. STANDARD OPERATING PROCEDURES

The PCB, Pesticide, Aliphatics and PAH analytes for samples listed in Table 1 (Tissues) and Table 2 (Sediments) were determined following extraction using gas chromatography with electron capture detection (GC/ECD), gas chromatography with flame ionization detection (GC/FID), and gas chromatography/mass spectrometry in the selective ion monitoring mode (GC/MS-SIM). Concentrations of the seventeen 2,3,7,8-substituted dioxin and furan isomers, and the three coplanar PCB isomers were determined by high resolution gas chromatography/high resolution mass spectrometry (HRGC/HRMS). Trace metals were determined after acid digestion followed by a combination on inductively coupled plasma (ICP), neutron activation, and atomic adsorption spectrometry. Mercury was determined using cold vapor techniques. All samples were analyzed under GERG's Quality Assurance Project Plan (QAPP) which includes analysis of duplicates, blanks, matrix spikes, and standard reference materials.

III. ANALYSIS of TISSUES for POLYNUCLEAR AROMATIC HYDROCARBONS, PESTICIDES and PCBs.

A. Extraction

Ten tissue samples were extracted as set M881 and analyzed for PAHs, pesticides and PCBs. The PAH surrogate recoveries fell below the required QC limits, and eight of the ten samples were re-extracted as set M1442 and re-analyzed. Two tissue samples from M881 (C11952 and C11954) had insufficient sample left for re-extraction. There are no PAH data reported for these two samples, and the associated data tables are flagged with "NA", not available. The pesticide/PCB analytes for these two samples are reported from the original extraction set M881. An additional ten tissue samples were extracted as set M959 and analyzed for PAHs, pesticides and PCBs.

B. Surrogate Recoveries

Of the twenty tissue samples reported, six had low recoveries for the surrogate d_{12} -perylene. d_{12} -Perylene is an advisory surrogate only and no corrective action was necessary.

One sample had high recovery of surrogate PCB198, and one sample had high recovery of surrogate PCB103. Because the other PCB surrogates in those two samples were within QC acceptance criteria, no corrective action was deemed necessary.

Matrix interference with the Internal Standard, TCMX, in sample C11951 caused excessively high recoveries for all three Pesticide/PCB surrogates. Those recoveries have been flagged with an "M". Analyte concentrations were not affected by the interference. Only one of the target Pesticide/PCB analytes (dieldrin) was detected in the sample at a concentration greater than three times the MDL.

Recoveries outside the QC acceptance criteria are flagged with a "Q" in the data tables.

C. Laboratory Blanks

Each of the three extraction sets included one Laboratory Blank (BLANK) sample. The associated sample numbers are Q6198 (set M881), Q9732 (set M1422), and Q7929 (set M959). None of the target analytes were detected in the Laboratory Blanks at concentrations greater than three times the Method Detection Limit (MDL).

D. Laboratory Duplicates

Each of the three extraction sets included one Laboratory Duplicate (DUP) sample. The associated sample numbers are Q6196/C11955 (set M881), Q9733/C11955 (set M1422), and Q7928/C13787 (set M959).

Duplicate analyses of sample Q7928/C13787 (set M959) had high Relative Percent Differences (RPDs) for benzo(e)pyrene (54%) and for perylene (80%). Duplicate analyses of sample Q9733/C11955 (set M1422) had a high RPD for PCB41/64 (71%). Otherwise, analytes with concentrations greater than three times the MDL had RPDs

within the QC acceptance criteria. RPDs outside the QC acceptance criteria are flagged with a "Q" in the data tables.

E. Matrix Spikes

Two of the three extraction sets included one Matrix Spike (MS) sample. The associated sample numbers are Q6199/C11955 (set M881) and Q9735/C11955 (set M1422).

Sample Q6199 (set M881) had an average percent recovery of 109% for the Pesticide/PCB analytes. Sample Q9735 (set M1422) had an average percent recovery of 96% for the PAH analytes and 108% for the Pesticide/PCB analytes. Individual analytes with recoveries outside the target range are flagged with a "Q" in the data tables.

F. Laboratory Blank Spikes

Each of the three extraction sets included one Laboratory Blank Spike (LBS) sample. The associated sample numbers are Q6197 (set M881), Q9734 (set M1422), and Q7930 (set M959).

Sample Q6197 (set M881) had an average percent recovery of 106% for the Pesticide/PCB analytes. Sample Q9734 (set M1422) had an average percent recovery of 102% for the PAH analytes and 109% for the Pesticide/PCB analytes. Sample Q7930 (set M959) had an average percent recovery of 90% for the PAH analytes and 86% for the Pesticide/PCB analytes.

Individual analytes with recoveries outside the target range are flagged with a "Q" in the data tables.

G. Analytical Difficulties

Other than the re-extraction of set M881 discussed above, no analytical difficulties were encountered with these analyses.

IV. ANALYSIS of SEDIMENTS for POLYNUCLEAR AROMATIC HYDROCARBONS, ALIPHATIC HYDROCARBONS, PESTICIDES and PCBs.

A. Extraction

A total of forty sediment samples were extracted in four analytical QC batches designated M748 (10 samples), M749 (10 samples), M2065 (9 samples) and M2075 (11 samples). No significant analytical difficulties were reported during the extraction procedures.

B. Surrogate Recoveries

Of the forty sediment samples reported, four had low recoveries for the surrogate d_{12} -perylene. d_{12} -Perylene is an advisory surrogate only and no corrective action was necessary. Three samples also had low recoveries for surrogate d_{12} -chrysene, however insufficient sample remained for re-extraction.

In three of the forty sediment samples all three Pesticide/PCB surrogates had high recoveries. Most target analytes were either not detected or were present at concentrations less than three times the MDL so no corrective action was deemed necessary.

In eight of the forty sediment samples the C30-alkane surrogate standard exceeded the QC acceptance criteria due to matrix interferences. Because of the limited availability of additional sample, corrective action was not initiated.

Recoveries outside the QC acceptance criteria are flagged with a "Q" in the data tables. An "M" in the data tables indicates matrix interferences that co-eluted with the affected analyte.

C. Laboratory Blanks

Each of the four extraction sets included one Laboratory Blank (BLANK) sample. The associated sample numbers are Q7069 (set M748), Q7074 (set M749), Q9003 (set M2065), and Q9084 (set M2075). Two extraction sets also included a sodium sulfate blank (NaSO₄ BLANK). The associated sample numbers are Q7068 (set M748) and Q7073 (set M749).

The C10-, C11-, and C12-alkanes were detected in sodium sulfate blank Q7068 at concentrations greater than three times the MDL. Otherwise, none of the target analytes were detected in the Laboratory Blanks or the sodium sulfate blanks at concentrations greater than three times the MDL.

D. Laboratory Duplicates

Each of the four extraction sets included one Laboratory Duplicate (DUP) sample. The associated sample numbers are Q7071/C12911 (set M748), Q7076/C12921 (set M749), Q9002/C13771 (set M2065), and Q9083/C13781 (set M2075).

Duplicate analyses of sample Q7071/C12911 (set M748) had high Relative Percent Differences for most of the aliphatic analytes due to losses of the original sample

in the extraction lab. Re-extraction could not be initiated because of limited sample size; those data are not included in the tables.

Duplicate analyses of sample Q7076/C12921 (set M749) had high RPDs for C19-alkanes (49%). In the duplicate analyses of sample Q9002/C13771 (set M2065) RPDs could not be calculated for the aliphatic analytes because most target analytes were either not detected or fell below the MDL. Duplicate analyses of sample Q9083/C13781 (set M2075) had RPDs for the aliphatics that were within QC acceptance criteria for all target analytes.

RPDs could not be calculated for the PAH and Pesticide/PCB analytes because most target analytes were either not detected or fell below the MDL. RPDs outside the QC acceptance criteria are flagged with a "Q" in the data tables.

E. Matrix Spikes

Each of the four extraction sets included one Matrix Spike (MS) sample. The associated sample numbers are Q7070/C12911 (set M748), Q7075/C12921 (set M749), Q9001/C13771 (set M2065), and Q9082/C13781 (set M2075).

Sample Q7070 (set M748) had an average percent recovery of 115% for the Aliphatics, 85% for the PAHs, and 97% for the Pesticide/PCB analytes. Sample Q7075 (set M749) had an average percent recovery of 121% for the Aliphatics, 78% for the PAHs, and 81% for the Pesticide/PCB analytes.

Sample Q9001 (set M2065) had an average percent recovery of 98% for the Aliphatics, 85% for the PAHs, and 89% for the Pesticide/PCBs. Sample Q9082 (set M2075) had an average percent recovery of 74% for the Aliphatics, 80% for the PAHs, and 105% for the Pesticide/PCBs.

Individual analytes with recoveries outside the target range are flagged with a "Q" in the data tables.

F. Laboratory Blank Spikes

Two of the four extraction sets included one Laboratory Blank Spike (LBS) sample. The associated sample numbers are Q9004 (set M2065) and Q99085 (set M2075).

Sample Q9004 (set M2065) had an average percent recovery of 99% for the Aliphatics, 83% for the PAHs, and 92% for the Pesticide/PCB analytes. Q99085 (set M2075) had an average percent recovery of 96% for the Aliphatics, 86% for the PAHs, and 104% for the Pesticide/PCB analytes.

Individual analytes with recoveries outside the target range are flagged with a "Q" in the data tables.

G. SRM Samples

Two of the four extraction sets included one aliquot of Standard Reference Material (SRM) 1941. The associated sample numbers are Q7067 (set M748) and Q7072 (set M749).

Concentrations of the target analytes measured in the two SRM samples are tabulated in the Quality Control section of this report. Certified concentrations are not available for most of the target analytes, therefore the results from these analyses are considered advisory only.

H. Analytical Difficulties

Other than the unusually high surrogate recoveries discussed above, no analytical difficulties were encountered with these analyses.

V. ANALYSIS of TISSUES for DIOXINS, FURANS and COPLANAR PCBs

A. Extraction

A total of eleven tissue and twenty sediment samples were extracted in four analytical QC batches designated DX0170 (11 tissues), DX0173 (7 sediments), DX0180 (7 sediments) and DX0183 (6 sediments). No significant analytical difficulties were reported during the extraction procedures. All sample extracts were analyzed for the seventeen dioxin/furan target analytes and the three coplanar-PCB analytes.

B. Surrogate Recoveries

All dioxin/furan and coplanar-PCB surrogate recoveries were within QC acceptance criteria in the eleven tissue samples extracted and analyzed. Six of the twenty sediments analyzed had one or more dioxin/furan or coplanar-PCB surrogate recoveries outside the QC acceptance criteria. Because of the limited availability of additional sample, re-extraction was not initiated.

Recoveries outside the QC acceptance criteria are flagged with a "Q" in the data tables.

C. Laboratory Blanks

Each of the four extraction sets included one Laboratory Blank (BLANK) sample. The associated sample numbers are Q9071 (set DX0170), Q11192 (set DX0173), Q10021 (set DX0180), and Q10054 (set DX0183).

None of the target analytes were detected in the Laboratory Blanks at concentrations greater than three times the MDL.

D. Laboratory Duplicates

Each of the four extraction sets included one Laboratory Duplicate (DUP) sample. The associated sample numbers are Q9073/C11962 (set DX0170), Q11196/C12911 (set DX0173), Q10022/C16684 (set DX0180), and Q10055/C16718 (set DX0183).

RPDs could not be calculated for dioxin/furan and coplanar-PCB analytes because most target analytes were either not detected or fell below the MDL.

E. Matrix Spikes

Each of the four extraction sets included one Matrix Spike (MS) sample. The associated sample numbers are Q9072/C11962 (set DX0170), Q11194/C12911 (set DX0173), Q10024/C16684 (set DX0180), and Q10057/C16718 (set DX0183).

The recoveries of the coplanar-PCB analytes in the tissue and sediment MS samples were all within QC acceptance criteria. Tissue MS sample Q9072 (set DX0170) had high recoveries for four dioxin/furan target analytes and sediment MS sample Q11194 had high recoveries for one dioxin/furan target analyte. All other dioxin/furan analytes had recoveries within the QC acceptance criteria in the tissue and sediment MS samples.

Individual analytes with recoveries outside the target range are flagged with a "Q" in the data tables.

F. Laboratory Blank Spikes

Each of the four extraction sets included one Laboratory Blank Spike (LBS) sample. The associated sample numbers are Q9074 (set DX0170), Q11195 (set DX0173), Q10026 (set DX0180), and Q10058 (set DX0183).

Laboratory Blank Spike sample Q11195 had high recoveries for two dioxin/furan target analytes. All other dioxin/furan and coplanar-PCB analytes had recoveries within the QC acceptance criteria in the LBS samples.

Individual analytes with recoveries outside the target range are flagged with a "Q" in the data tables.

G. SRM Samples

Two of the four extraction sets included one aliquot of Standard Reference Material (SRM) 1941. The associated sample numbers are Q7067 (set M748) and Q7072 (set M749).

Concentrations of the target analytes measured in the two SRM samples are tabulated in the Quality Control section of this report. Certified concentrations are not available for any of the target analytes, therefore the results from these analyses are considered advisory only.

H. Analytical Difficulties

Other than the outliers discussed above, no analytical difficulties were encountered with these analyses.

VI. ANALYSIS of TISSUES and SEDIMENTS for TRACE METALS

A. Analysis Request

Twenty tissue samples and forty-three sediment samples were transferred to the Trace Element Research Lab (TERL) at Texas A&M University for analysis of the nineteen requested trace metal analytes. TERL results for all analytical and Quality Control samples are tabulated at the end of this data package.

B. Laboratory Blanks

Three Laboratory Blanks (designators BLK5B001, BLK5B002, and BLK5B003) were digested and analyzed with the twenty tissue samples. Three Laboratory Blanks (designators BLK-001, BLK-002, and BLK-003) were digested and analysed with the forty-three sediment samples. None of the target analytes were detected in the six Laboratory Blank samples at concentrations greater than the MDL.

C. Laboratory Duplicates

One tissue sample, C11955, was digested and analyzed in duplicate. One analyte, manganese, had a RPD of 67%. Otherwise all target analytes had RPDs below 30%. Two other tissue samples, C17716 and C11949, were analyzed in duplicate for mercury. The concentration of mercury in sample C17716 was below the MDL and no RPD could be calculated. The RPD for mercury in sample C11949 was 0%.

Three sediment samples, C12906, C13771, and C16732, were digested and analyzed in duplicate. All analytes with concentrations greater than three times the MDL had RPDs below 30%. One sample, C12915, was analyzed in duplicate for mercury with a RPD of 0%.

D. Matrix Spikes

One tissue sample, C11962, was digested and analyzed as a MS/MSD pair. All analyte recoveries fell between 80% and 109%. All RPDs were 12% or less. Sample C17719 was analyzed as a MS/MSD pair for mercury. Percent recoveries were 76% and 58%, respectively.

Three sediment samples, C12906, C13771, and C16732, were digested and analyzed as MS samples. All analyte recoveries fell between 91% and 118%. Sample C12916 was analyzed as a MS sample for mercury with a percent recovery of 93%.

E. Laboratory Blank Spikes

Three LBS samples (designators BS5B001, BS5B002, and BS5B003) were digested and analyzed with the tissue samples. All analyte recoveries were within QC acceptance criteria.

Three LBS samples (designators BS-001, BS-002, and BS-003) were digested and analyzed with the sediment samples. All analyte recoveries were within QC acceptance criteria.

F. Standard Reference Materials

Three aliquots of Standard Reference Material (SRM) DORM-2 NRCC were digested and analyzed with the tissue samples. Two aliquots of SRM DORM-1 NRCC were analyzed for mercury. All analyte recoveries were within QC acceptance criteria.

Three aliquots of SRM MESS-2 NRCC were digested and analyzed with the sediment samples. Recoveries for aluminum, barium, beryllium, vanadium, boron, molybdenum, and selenium fell below 65%. All other analyte recoveries were acceptable.

This data package is certified to be in compliance with the terms and conditions of the project QAPP, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data has been authorized by the management of GERG as verified by the following signatures:

Laura Chambers 12/13/95

Laura Chambers
Environmental Project Administrator

Guy Denoux 12/13/95

Guy Denoux, Ph.D.
Manager, Project Administration

GERG ID	Station	Organism	PAHs	Aliphatics	Pesticides /PCBs	Dioxins	cp-PCBs	Metals
C11961	05	Liver (Sturg)				•	•	•
C11965	05	Liver (Sturg)						•
C11946	08	Isopods	•		•	•	•	
C11954	09	Liver			•			
C11952	10	Isopods			•			
C11953	10	Liver						•
C11953	10	Liver	•		•	•	•	
C11956	14	Bivalves				•	•	
C17713	14	Isopods						•
C11947	15	Bivalves	•		•			
C17718	15	Isopods						•
C11948	16	Isopods	•		•	•	•	•
C11949	16	Worm Tube	•		•			•
C11950	17	Amphipods	•		•	•	•	•
C17714	17	Mussel						•
C17715	17	Isopods						•
C13786	19	Bivalves	•		•			
C13787	19	Isopods	•		•			
C16751	19	Amphipods				•	•	•
C17716	19	Worm						•
C11951	20	Bivalves	•		•			
C16752	20	Bivalves				•	•	•
C17712	20	Worm						•
C11959	21	Worm Tube						•
C13788	21	Isopods	•		•			
C13789	21	Bivalves	•		•			
C11962	21-3	Livers				•	•	•
C11955	24	Liver	•		•	•	•	•
C13790	35	Nephthys	•		•			
C17717	35	Starfish						•
C17719	35	Maldanidae						•
C13791	38	Sipanclid	•		•			
C13792	45	Sipanclid	•		•			
C13793	48	Nephthys	•		•			
C13794	54	Isopods	•		•			
C16753	54	Nephthys				•	•	•
C13795	56	Sipanclid	•		•			

Table 1. Tissues.

GERG ID	Station	PAHs	Aliphatics	Pesticides /PCBs	Dioxins	cp-PCBs	Metals
C12905	02	●	●	●			
C12906	05	●	●	●	●	●	●
C12907	07	●	●	●			
C16679	08A				●	●	●
C13766	09	●	●	●			●
C16684	10				●	●	●
C12908	12	●	●	●	●	●	●
C12909	14	●	●	●	●	●	●
C13767	16	●	●	●	●	●	●
C16703	17				●	●	●
C16701	18				●	●	●
C16704	19				●	●	●
C12917	20	●	●	●	●	●	●
C12911	21	●	●	●	●	●	●
C13768	22	●	●	●			●
C12910	25	●	●	●			●
C13769	27	●	●	●			●
C13770	29	●	●	●	●	●	●
C13771	32	●	●	●			●
C16718	33				●	●	●
C12918	35	●	●	●			●
C13772	36	●	●	●			●
C13773	38	●	●	●	●	●	●
C12919	40	●	●	●			●
C13774	41	●	●	●			●
C13775	42	●	●	●			●
C16732	44				●	●	●
C12920	45	●	●	●			●
C13776	47	●	●	●			
C13777	48	●	●	●			●
C13778	49	●	●	●			●
C13779	51	●	●	●			●
C13780	53	●	●	●			●
C13781	54	●	●	●	●	●	●
C13782	55	●	●	●			●
C13783	56	●	●	●	●	●	●
C13784	57	●	●	●			●
C12912	58	●	●	●	●	●	●
C12913	59	●	●	●			●
C12914	60	●	●	●			●
C12915	61	●	●	●	●	●	●
C12916	62	●	●	●			●
C12921	66	●	●	●			
C12922	71	●	●	●			
C16747	71A				●	●	
C12923	75	●	●	●			●
C13785	76	●	●	●			●
C12924	77	●	●	●			●

Table 2. Sediments.

Project: Siberian Issues

Date: 7-19-94

CC: Guy Denoux

Hink

Jim Brooks

Wendy

File

M1422

Sample Action Request Form

Type of Action: Rerun: _____ Dilute: _____ Re-Extract: ☒

Folder ID #	Sample #	Comments on sample	Others
m881	all	Surrogate recoveries for PAHs very low. Please RX entire set for PAH's.	
	C11952	NO sample	
	C11954	NO sample	

Requestor Laura

Channel # and Comments: Jennifer, I have not
seen the OC data for these samples
yet. Please prep for OC (pest & PCB)
in case those recoveries are low too.

Jennifer's Comments: _____

Thanks, Laura

Jose's Comments: _____

Terry Wade Comments: _____

Dry wt.

Laboratory Sample Logbook

Project/SDG#: Siberia
 Analysis: NR, OC
 Comments: re-est. from M881.

Tissue Type: Liver, Bivalves, Amphipods

MISC
TISSUE

Surrogate # STD-
 100A-54-AR-87 100-1
 Spike # STOC Spk 100-1
 100A-54-AR-87 100-1
 GC Internal STD
 ST TCMX
 0693-04-19 100µl

Sample ID	Client Descriptor	Wet Wt (g)	Dry Wt (%)	Dry Wt (g)	Comments
1 Q 9732	blank				
2 Q 9733	dup C11955	0.552	41.49	0.229	
3 Q 9734	spk blank				
4 Q 9735	spk sample. C11955	0.547	40.45	0.221	
5 C11955R	93-DO-01, sta 24	0.582	41.12	0.239	amphipods - surgeon liver
6 C11947R	93-DO-01, sta 15	1.447	26.49	0.383	amphipods - day 1 or 2
7 C11948R	93-DO-01, sta 16	2.020	26.51	0.536	bivalves - no sample left
8 C11949R	93-DO-01, sta 16	10.048	63.00	6.33	Worm Tube
9 C11950R	93-DO-01, sta 17	5.009	26.84	1.344	amphipods fall in sample
10 C11951R	93-DO-01, sta 20	0.182	no dry wt.		Run through Column 2 times.
11 C11952R	93-DO-01, sta 10				bivalves - no sample left.
12 C11953R	93-DO-01, sta 10	0.562	31.95	0.180	Worms - sample missing
13 C11954R	93-DO-01, sta 9				Liver
14 C11955R	93-DO-01, sta 8	2.014	31.41	0.633	Worms - sample missing
15 C11956R	93-DO-01, sta 8				Worms - sample missing

Lab Manager
 Date 9/4/94 Initials gms

QA/QC Officer
 Date Initials

Sample Storage
 SA1 SA2

M 1422

Laboratory Sample Logbook

MISC TISSUE	Project/SDG#: _____	Tissue Type: _____	SA1 (AL-Aliphatics): Pentane/50:50 (mL): SA2(OC-Pest/AR-PAH): Lipids: Dry Weights:	Y / N Y / N Y Y / N	Surrogate #
	Analysis: _____				Spike #
	Comments: _____				GC Internal STD

Sample ID	Client Descriptor	Wet Wt (g)	Dry Wt. (%)	Dry Wt. (g)	Comments
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					

DATE: _____	INITIALS: _____
Sample Prep	
Extraction / Spike Witness	
Lipids	
Concentration	
Column	
Concentration	
HPLC	
Concentration	
GC / ECD Prep	
GC / MS Prep	
GC / FID Prep	
Coplanar Column	
Received GC / MS	
Received GC / FID	

Misc Samples TISSUE	Tissues:	Birds	Comments: Siberian Tissues *Extra Careful! No sample left!
		Isopods	
		Nepitids	
		Supanid	

PAH Pes PCB Fluorene Anthracene

Surrogate # 1000
NOAA-SUR-1000
Spike # 1000
STOCSP
NOAA-MP-1000
GC Internal STD
ST TCMX 1000
0083-01-28

File #	Sample Description	Wet Wt (g): Volume (l):	Dry Wt (%)	Dry Wt (g)	Comments:	QA
1 C13786	Station 19	1.605	8.165	0.139	Birds No sample left more than 2ml from column	Sample Prep Date 04/26/94 Initial ADW
2 C13787	Station 19	10.474	19.17	2.008	Isopods No sample left 2ml column	Extraction Date 04/26/94 Initial ADW
3 C13788	Station 21	1.712	27.15	0.465	Birds No sample left	Concentration Date 4-27-94 Initial RS
4 C13789	Station 21	2.807	27.15	0.630	Isopods No sample left 2ml column	SI/Al Column SAZ Date 5-10-94 Initial DW + M
5 C13790	Station 35	5.889	55.55	3.277	Nepitids No sample left 2ml column	Concentration Date 5-11-94 Initial DW
6 C13791	Station 38	12.841	15.82	1.715	Supanid No sample left 2ml column	HPLC Date 5-13-94 Initial RS
7 C13792	Station 45	5.831	33.45	1.950	Supanid No sample left 2ml column	Concentration Date 5-16-94 Initial CM
8 C13793	Station 48	0.631	43.65	0.275	Nepitids No sample left 2ml column	GC/ECD Prep Date 5-16-94 Initial DW
9 C13794	Station 54	7.604	94.1643	7.197	Isopods 13 No sample left 2ml column	GC/MS Prep Date 5-17-94 Initial DW
10 C13795	Station 56	8.710	87.2925	0.208	Supanid No sample left 2ml column	GC/FID Prep Date 5-16-94 Initial DW
11		CW 4-26-94	44			
12 Q7928	DUP Station 19	10.5514	4.01	0.405	No sample left 2ml column	
13 Q7929	Blank					
14 Q7930	Spike Sample					

1992-JF01, Misc Tissue Log

Lab Manager		QA/QC Officer	
Date	Initials	Date	Initials

M 959

Laboratory Sample Logbook

Misc Samples	Sediments: ☒	Comments:
SEDIMENT	Water: _____	SIBERIAN SEDS. 93-DO-01 Box Core PAH, ALI, PEST Si/Al columns ST1, SAZ 0.5ml hexan

File #	Sample Description	Dry Wt (g): Volume (l):	Dry Wt (%)	Wt (g)	Comments:
1	Station 2	10.15	72.35	7.34	
2	Station 5	10.16	54.58	5.55	
3	Station 7	10.16	40.16	4.08	
4	Station 12	10.21	39.65	4.05	
5	Station 14	10.27	36.98	3.80	
6	Station 25	10.31	82.44	8.50	
7	Station 21	10.43	62.45	6.51	
8	Station 59	10.72 + 10.04	25.90	2.60	
9	Station 59	10.37	19.21	1.99	
10	Station 60	10.14	29.42	2.98	
11	Station 61				
12	Station				
13					
14					
15					
16					
17					
18					
19					
20					
21	SPM 1941	5560			
22	No. 504 Blank				
23	Blank				
24	Spike Sample (12M)	10.21	62.45	6.38	

1992-JF02 Misc Sediment Log

15 7071 QVQC
1992-JF02 Misc Sediment Log

Lab Manager

Date	Initials
11/2/93	gmm

 → QVQC
→ 10.10 62.24 6.29

QA/QC Officer

Date	Initials

M 748

Surrogate #: SOW NORTH-WA-01	Spoke #: SOW NORTH-WA-02	GC Internal STD: SOW 1cm
Seiointel	Sq T & B/FEST	0693-07-17

QA	
Sample Prep	Initial
Date	
Extraction	
Date	Initial
11-11-93	CM
Concentration	
Date	Initial
11-15-93	CM
Si/Al Column	
Date	Initial
11-19-93	CM
Concentration	
Date	Initial
11/21/93	CS
GC/ECD Prep	
Date	Initial
11/22/93	CS
GC/MS Prep	
Date	Initial
11-24-93	CS
GC/FID Prep	
Date	Initial
11-24-93	CS

SAI # M121 Laboratory Sample Logbook

Misc Samples
SEDIMENT
Sediments: ☒
Water: ☐
M117
SAPSA-MH

Comments: SIBERIAN SEDS. 93-DO-01
Box Core
SI/AL columns
SAI/SAZ
0.5mL hexane

PAM, ALI, REST

File #	Sample Description	Dry Wt (g): Volume (l):	Dry Wt (%)	Wet Wt (g)	Comments:
1	Station 61	10.08	25.91	2.61	
2	Station 62	10.19	24.60	2.50	
3	Station 20	10.14	46.65	4.73	
4	Station 35	10.20	61.91	6.38	
5	Station 40	10.19	80.78	8.23	
6	Station 45	10.03	46.23	4.63	
7	Station 66	10.25	50.50	5.18	
8	Station 71	10.00	42.25	4.23	
9	Station 75	10.63	78.73	7.98	
10	Station 77	10.04	59.28	5.95	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
1121	SRM 1941	5.541			
122	NazSO4				
1328	Blank				
1424	Spike Sample 1296	10.10	50.50	5.10	

1992-JF02 Miao Sediment Log

Lab Manager

Date Initials

QA/QC Officer

Date Initials

10.18 50.39 5.13

Surrogate #: 5060
NWA-Sub-A-05
SET Int SDC
Spike #: 5060
SET REACT
NWA-Sub-A-02
GC Internal STD:
5060 SET
TENV 0693-071

QA
Sample Prep
Date Initial
11-12-93
Extraction
Date Initial
11-11-93
Concentration
Date Initial
11-15-93
SI/Al Column
Date Initial
11-19-93
Concentration
Date Initial
11-21-93
GC/ECD Prep
Date Initial
11-22-93
GC/MS Prep
Date Initial
11-29-93
GC/FID Prep
Date Initial
11-29-93

M 749

Laboratory Sample Logbook

Surrogate #
STUDIOS 07-15 2004
NAA-SU-AA-07 2004
Spike #
NAA-MA-AA-03 2004
S-T OL-Spike 2004
GC Internal STD
Get TCMX-5A2W
0693-01-2004
INITIALS
Sample Prep
5-15-94 M + CJ
Extraction
5-16-94 CJ + M
Concentration
5-18-94 DW
5A2 + A1 Column
5A2 5-19-94 SC
A1 5-23-94 DW
Concentration
5Q2 5-20-94 RSM
A1 5-24-94 DW/CRS
GC/ECD Prep
5-24-94 DW
GC/MS Prep
5-24-94 DW
GC/FID Prep
5-24-94 DW
Received GC/MS
5-25-94 CWG
Received GC/FID
5/24/94 DW

Project: Siberia
Analysis: Al, DTH, Kestrel
Comments: Samples split before columns for different analysis
Combined two samples to produce 20 grams

SA1 (A1) Pentane vol.
SA2 (Res/PAT) SA3

Y/N
Y/N
Y/N

File #	Sample ID	Wet Wt (g) Volume (L)	Dry Wt. (%)	Dry Wt. (g)	Comments
1	C13766	20.25	42.61	8.639	Condenser came off in ext. Must vent later
2	C13767	20.36	28.35	5.772	
3	C13768	20.43	30.00	6.129	
4	C13769	20.11	53.68	10.795	
5	C13770	20.66	80.51	16.633	EXTRACTS SPLIT
6	C13771	20.24	85.60	17.33	7325 IN HALF - gmd
7	C13772	20.49	47.21	9.67	9.673
8	C13773	20.74	31.60	6.55	6.554
9	C13774	20.38	70.60	14.39	14.388
10	C13775	20.37	47.18	9.61	9.611
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
1121	Q 9001	20.28	85.44	17.33	17.327
1122	Q 9002	20.47	85.44	17.49	17.490
1123	Q 9003				
1124	Q 9004				

Lab Manager
Date: 5/20/94 Initials: gmd

QA/QC Officer
Date: 5/20/94 Initials: SA2

Sample Storage
AC: SA1 SA2
MISS MISS

M 2065

Laboratory Sample Logbook

MISC		Matrix	Project: Siberia	SA1 (All)	Y / N	
SEDIMENT		☒ Sediments ☐ Water	Analysis: Mi, PAH, PCB	Pentane vol. SA2 (Pes/PAH) SA3	Y / N	
			Comments: Samples need to be split before columns.		Y / N	
File #	Sample ID	Wet Wt (g) ☐ Volume (L)	Dry Wt. (g)	Comments	DATE	INITIALS
1	013766 Sta 9	18.09	7.703		5-24-94	MT
2	013776 Sta 44	20.10	10.245		5-26-94	MT
3	013777 Sta 48	20.14	12.942		5-27-94	CRS/DW
4	013778 Sta 49	20.16	13.493		5-27-94	DW (both)
5	013779 Sta 51	20.10	9.748		5-30-94	CRS
6	013780 Sta 53	20.05	15.136		5-30-94	DW
7	013781 Sta 54	20.07	14.853		5-30-94	DW
8	013782 Sta 50	20.03	15.004		5-30-94	DW
9	013783 Sta 56	20.06	13.819		5-30-94	DW
10	013784 Sta 57	20.05	6.743		5-30-94	DW
11	013785 Sta 40	20.03	14.283		5-30-94	DW
12					Received GC/MS	5-30-94 CMW
13					Received GC/FID	5-30-94
14						
15						
16						
17						
18						
19						
20						
121	09082 Dup1 MSC13781	20.13	14.902			
132	09083 Dup2 CB3781	20.16	14.880			
143	09084 Blank					
154	09085 Spike Blank					

Lab Manager	QA/QC Officer	Sample Storage
Date: Initials:	Date: Initials:	SA1: SA2: M153 M154

DIOXIN LABORATORY SAMPLE LOGBOOK

Sample ID Q11192 **Client Descriptor** BLANK
Analysis Type GC/MS **Wet Wt (g)** 42.03 **Dry Wt (%)** 56.19 **Dry Wt (g)** 23.62
Surrogate #: 1013105020042 **Internal Std #:** 112924 **Spike #:** 6350106110 **Clean Up Std #:** 41354
Initials: RS

#	Sample ID	Client Descriptor	Wet Wt (g) Volume (l)	☒ ☐	Dry Wt (%)	Dry Wt (g)	Comments	QA Documentation	DATE	INITIALS
1	Q11192	BLANK				20.1		Sample Prep	11/24/94	RS/SMS
2	C12106	Station 5	42.03		56.19	23.62		Extraction	11/30/94	RS/SMS
3	C12108	Station 12	38.54		45.00	26.34		Concentration	12/08/94	RS/SMS
4	C12109	Station 14	47.48		40.10	19.04		SI/Al Column	12/08/94	SMS
5	C12111	Station 21	23.45		63.77	14.95		Concentration		
6	C12112	Station 58	41.95		50.46	21.17		HPLC/GPC		
7	C12115	Station 61	40.77		35.61	14.52		Concentration		
8	C12117	Station 20	43.74		62.96	27.54		Acid Swirl Partition	12/09/94	PCH
9	Q11196	DOP	20.48		63.77	13.06		Concentration	12/09/94	PCH
10								SI/H2SO4/KOH Column	12/10/94	SMS
11								Concentration	12/11/94	SMS
12								Alumina Column	12/12/94	SMS
13								Concentration	12/13/94	PCH
14								Charcoal Column	12/14/94	PCH
15								Concentration	12/15/94	PCH
16								Final Evaporation	12/15/94	PCH
17								GC/HRMS Prep/Storage		
18								Run on HRMS		
19								Archive		
20										
21	Q11193	SRM 1941A	5.09		100	5.09				
22	Q11194	MS C1211	24.00		63.77	15.30				
23	Q11195	MSD								
24	Q11195	BLANK SPIKE				20.1				

Surrogate #: 1013105020042 **Internal Std #:** 112924 **Spike #:** 6350106110 **Clean Up Std #:** 41354
Initials: RS

Comments: NO CLEANUP STD!!!
Related Page: DX0173

DIOXIN LABORATORY SAMPLE LOGBOOK

Project/SDG#: 10021
 Tissue: BLANK
 Sd: CP
 Water: CP
 Other: CP
 Catalog #: 10021

Surrogate #: 10021
 Spike #: 10021
 Clean Up Std #: 10021
 Internal Std #: 10021

#	Sample ID	Client Descriptor	Wet Wt (g) Volume (l)	Dry Wt (%)	Dry Wt (g)	Comments	QA Documentation
1	Q10021	BLANK			20.1		12/02/94 SMS/LC
2	C16679	ETA 8A	57.21	63.66	36.42		12/02/94 SMS/LC
3	C16732	ETA 44	40.90	44.54	18.13		12/02/94 SMS/LC
4	C13773	ETA 38	60.51	38.90	23.54		12/08/94
5	C13743	ETA 56	49.45	69.11	34.17		12/08/94
6	C16684	ETA 10	39.96	84.36	33.71		12/08/94
7	C16701	ETA 17	61.61	33.48	20.63		12/11/94 SMS
8	C16703	ETA 18	41.44	80.36	33.30		12/12/94 SMS
9	Q10022	C16684 DCP	39.3775	84.36	33.21		12/12/94 SMS
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21	Q10027	SRM 1941A	6.31	100	6.31		12/13/94 PCH
22	Q10028	MS C16684	41.16	84.36	34.72		12/15/94 SMS
23		MSD					12/16/94 PCH
24	Q10026	BLANK SPIKE			20.1		12/17/94 PCH
25							12/19/94 PCH

Surrogate #: 10021
 Internal Std #: 10021
 Spike #: 10021
 Date: 12/02/94
 Time: 12/02/94
 Related Page: DX0180

DIOXIN LABORATORY SAMPLE LOGBOOK

Project/SDG #: SLBBA/0NF
 Catalog #:
 Tissue: Soil ☒
 Water: ☐
 Other: ☐

Surrogate #: 1613 LGS 2A
 Spike #: PCB 100 50UL
 Internal Std #: PCB 100 50UL

#	Sample ID	Client Descriptor	Wet Wt (g) Volume (l)	Dry Wt (%)	Dry Wt (g)	Comments	Documentation	
							DATE	INITIALS
1	Q10054	BLANK	-		20.-		12/09/94	SUS/8
2	C16704	STA19	46.10	49.50	22.82		12/09/94	SMS
3	C16718	STA33	44.36	68.18	30.24		12/09/94	SMS
4	C16747	STA71A	45.89	40.48	18.58		12/12/94	SMS
5	C13767	STA16	82.19	30.31	24.91			
6	C13770	STA29	48.39	78.86	38.16			
7	C13781	STA54	67.41	73.62	49.63			
8	Q10055	C16718 DUP	61.24	68.18	41.75		12/15/94	SMS
9								
10								
11							12/19/94	PCB
12								
13								
14								
15								
16								
17								
18								
19								
20								
21	Q10056	SRM 1941A	61.30	100	6.30			
22	Q10057	MS C16718	64.32	68.18	43.85			
23		MSD						
24	Q10058	BLANK SPIKE	-		20.-			

Surrogate #:
 Internal Std #:
 Spike #:

Comments: * Samples were spiked & extracted on 12.4.94. Wrong date written above.

Prepared By: Date: 12/14/94

Related Page: DX0183

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

PAHs, PCBs, and Pesticides
in Tissues
Analytical Sample Data

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	STA 8	STA 15	STA 16	STA 16	STA 17
ID:	ISOPODS	BIVALVES	ISOPODA #3	WORMTUBE	AMPHIPODS
LABSAMNO:	C11946	C11947	C11948	C11949	C11950
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	08/10/93	08/14/93	08/15/93	08/15/93	08/18/93
RECEIPT DATE:	09/03/93	09/03/93	09/03/93	09/03/93	09/03/93
QCBATCH:	M1422	M1422	M1422	M1422	M1422
EXTRACTION DATE:	08/22/94	08/22/94	08/22/94	08/22/94	08/22/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	09/08/94	09/08/94	09/08/94	09/08/94	09/08/94
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	09/29/94	09/28/94	09/28/94	09/28/94	09/28/94
MATRIX:	TISSUE	TISSUE	TISSUE	TISSUE	TISSUE
SUBMAT:					
WETWT:	2.01	1.45	2.02	10.05	5.01
DRYWT:	0.63	0.38	0.54	6.33	1.34
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	31.4%	26.5%	26.5%	63.0%	26.8%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:	8.47	11.54	0.97	0.03	9.55
Surrogate Recoveries					
PAH's:					
NAPHD8:	53	57	64	47	40
ACEND10:	67	63	66	51	47
PHEND10:	61	66	72	55	53
CHRYD12:	53	57	57	56	55
PERYD12:	43	34 Q	39 Q	38 Q	30 Q
PESTICIDES & PCB's:					
DBOFB:	56	112	63	62	55
PCB#103:	76	115	68	54	46
PCB#198:	73	144 Q	68	62	55

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	STA 8	STA 15	STA 16	STA 16	STA 17
ID:	ISOPODS	BIVALVES	ISOPODA #3	WORMTUBE	AMPHIPODS
LABSAMNO:	C11946	C11947	C11948	C11949	C11950
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	60.9	132.0	35.8	6.3	30.1
C1-NAPHTHALENES	53.5	94.1	36.1	8.2	18.1
C2-NAPHTHALENES	ND	65.3	38.5	6.9	19.2
C3-NAPHTHALENES	ND	ND	64.0	11.7	50.5
C4-NAPHTHALENES	ND	ND	ND	5.8	ND
BIPHENYL	10.8 J	22.7 J	12.7 J	2.6	6.6 J
ACENAPHTHYLENE	2.0 J	2.0 J	2.9 J	0.3 J	1.0 J
ACENAPHTHENE	6.0 J	8.4 J	5.8 J	0.3 J	2.1 J
FLUORENE	7.2 J	7.5 J	5.8 J	1.2 J	5.4 J
C1-FLUORENES	ND	17.2 J	ND	2.4 J	ND
C2-FLUORENES	ND	ND	ND	11.3	ND
C3-FLUORENES	ND	ND	ND	8.5	ND
PHENANTHRENE	18.1	23.3	14.5	6.7	23.7
ANTHRACENE	3.0 J	0.8 J	0.3 J	0.3 J	1.0 J
C1-PHEN_ANTHR	ND	23.0 J	12.2 J	6.5	13.8
C2-PHEN_ANTHR	ND	40.0 J	19.5 J	8.4	31.0
C3-PHEN_ANTHR	ND	63.4	ND	5.8	ND
C4-PHEN_ANTHR	ND	81.3	ND	4.0	ND
DIBENZOTHRIO	5.3 J	9.1 J	2.8 J	1.0	3.7
C1-DIBEN	ND	ND	ND	1.5	3.8 J
C2-DIBEN	ND	ND	ND	2.7	17.7
C3-DIBEN	ND	ND	ND	2.0	ND
FLUORANTHENE	4.5 J	15.3	5.0 J	2.6	14.3
PYRENE	3.9	8.8	5.1	2.8	10.9
C1-FLUORAN_PYR	ND	ND	ND	0.4 J	12.5
BENaANTHRACENE	1.7 J	1.7 J	0.7 J	1.3	6.7
CHRYSENE	2.3 J	14.9 J	2.1 J	2.6	6.4
C1-CHRYSENES	ND	ND	ND	3.2	3.6 J
C2-CHRYSENES	ND	ND	ND	2.9	3.6 J
C3-CHRYSENES	ND	ND	ND	ND	ND
C4-CHRYSENES	ND	ND	ND	ND	ND
BENbFLUORAN	1.0 J	8.0 J	0.7 J	1.8	4.2 J
BENkFLUORAN	1.0 J	8.0 J	0.7 J	1.8	4.2 J
BENePYRENE	3.0 J	10.9	2.6 J	2.2	3.2
BENaPYRENE	0.3 J	0.8 J	0.2 J	0.6 J	1.5 J
PERYLENE	13.8	87.8	3.5 J	18.2	3.2 J
I123cdPYRENE	0.6 J	1.9 J	0.4 J	0.7	2.0
DBaHANTHRA	0.6 J	0.7 J	0.6 J	0.2 J	0.4 J
BghiPERYLENE	1.6 J	3.8 J	0.9 J	1.6	2.1
TOTAL PAH's	187.1	664.6	269.9	128.9	302.9
(w/o PERYLENE)					

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	STA 8	STA 15	STA 16	STA 16	STA 17
ID:	ISOPODS	BIVALVES	ISOPODA #3	WORMTUBE	AMPHIPODS
LABSAMNO:	C11946	C11947	C11948	C11949	C11950
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	30.2	55.9	15.1 J	5.1	10.3
1-METHYLNAPH	23.2	38.1	21.0	3.1	7.7
2,6-DIMETHNAPH	6.7 J	9.8 J	11.3 J	2.4	5.9 J
1,6,7-TRIMETHNAPH	14.1 J	7.7 J	6.9 J	1.6 J	3.4 J
1-METHYLPHEN	9.6 J	4.6 J	1.8 J	1.4	2.7 J
Surrogate Recoveries					
NAPHD8:	53	57	64	47	40
ACEND10:	67	63	66	51	47
PHEND10:	61	66	72	55	53
CHRYD12:	53	57	57	56	55
PERYD12:	43	34 Q	39 Q	38 Q	30 Q

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	STA 8	STA 15	STA 16	STA 16	STA 17
ID:	ISOPODS	BIVALVES	ISOPODA #3	WORMTUBE	AMPHIPODS
LABSAMNO:	C11946	C11947	C11948	C11949	C11950
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	5.2 J	7.1 J	0.0 ND	0.6 J	13.2
TOT CHLORDANES (ALL)	3.2 J	9.1 J	10.5 J	0.2 J	88.6
TOT CHLORDANES (S&T)	2.4 J	7.1 J	5.6 J	0.2 J	48.3
TOTAL DDTs	49.3	66.3	1.4 J	0.5 J	340.9
TOTAL PCBs	56.0 J	220.9 J	75.9 J	2371.8	290.0
ALPHA-BHC	5.2	4.9	0.0 ND	0.0 ND	5.9
HCB	7.4	2.8	1.2 J	0.0 ND	13.4
BETA-BHC	0.0 ND	0.0 ND	0.0 ND	0.6	4.5
GAMMA-BHC	0.0 ND	2.2 J	0.0 ND	0.0 ND	2.7
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	1.2 J	1.8 J	0.0 ND	5.4
OXYCHLORDANE	0.0 ND	1.0 J	3.2	0.0 ND	28.8
GAMMA-CHLORDANE	0.0 ND	0.5 J	0.0 ND	0.0 ND	3.4
ALPHA-CHLORDANE	0.0 ND	3.0	0.0 ND	0.0 ND	8.4
TRANS-NONACHLOR	2.4	2.8	3.8	0.2 J	34.5
CIS-NONACHLOR	0.7 J	0.5 J	1.7 J	0.0 ND	8.1
ALDRIN	0.0 ND	2.6 J	0.0 ND	0.2 J	0.0 ND
DIELDRIN	0.0 ND	4.8	2.3	0.0 ND	24.0
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.6
MIREX	0.0 ND	2.3 J	0.0 ND	0.0 ND	1.1
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.4 J
4,4'DDE (P,P'DDE)	4.4	15.1	1.4 J	0.1 J	247.2
2,4'DDD (O,P'DDD)	0.0 ND	0.9 J	0.0 ND	0.0 ND	0.7 J
4,4'DDD (P,P'DDD)	32.8	31.2	0.0 ND	0.4	50.9
2,4'DDT (O,P'DDT)	4.4	0.0 ND	0.0 ND	0.0 ND	2.7
4,4'DDT (P,P'DDT)	7.7	19.1	0.0 ND	0.0 ND	38.9

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	STA 8	STA 15	STA 16	STA 16	STA 17
ID:	ISOPODS	BIVALVES	ISOPODA #3	WORMTUBE	AMPHIPODS
LABSAMNO:	C11946	C11947	C11948	C11949	C11950
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.3
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	1.1 J	0.0 ND	0.0 ND	2.2
66 (CL4)	0.0 ND	2.3 J	0.0 ND	0.0 ND	2.3
101 (CL5)	0.0 ND	5.3	3.7 J	0.0 ND	27.0
105 (CL5)	0.0 ND	2.1 J	1.2 J	0.0 ND	7.2
110/77 (CL5/4)	0.0 ND	7.6	0.0 ND	0.0 ND	4.3
118/108/149 (CL5/5/6)	4.6	1.7 J	3.0 J	0.0 ND	21.7
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.6
138 (CL6)	5.9	3.9 J	3.2 J	0.1 J	31.9
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	3.9	4.9 J	5.2	0.0 ND	53.0
170 (CL7)	1.6 J	4.0 J	1.9 J	0.1 J	3.9
180 (CL7)	1.7 J	0.8 J	0.7 J	0.0 ND	8.2
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.8
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	1.2 J	0.0 ND	0.0 ND	0.6 J
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.7 J
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.7 J
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	1.0 J	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	34.9 M	134.2 M	54.9 M	2371.6 M	21.4 M
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.3

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	STA 8	STA 15	STA 16	STA 16	STA 17
ID:	ISOPODS	BIVALVES	ISOPODA #3	WORMTUBE	AMPHIPODS
LABSAMNO:	C11946	C11947	C11948	C11949	C11950
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB #(CHLORINATION)					
70 (CL4)	0.0 ND	1.0 J	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.4 J	0.0 ND	0.0 ND	2.1
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.1
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.5
99 (CL5)	3.3	4.0 J	2.1 J	0.0 ND	24.4
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	1.1 J	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	1.7 J	0.0 ND	0.0 ND	11.3
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.9 J
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	2.1 J	0.0 ND	0.0 ND	1.9
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	40.5	0.0 ND	0.0 ND	4.8
141 (CL6)	0.0 ND	0.7 J	0.0 ND	0.0 ND	27.1
137 (CL6)	0.0 ND	1.0 J	0.0 ND	0.0 ND	4.4
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.0 J
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.4 J	0.0 ND	0.0 ND	8.2
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.9 J
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.9 J
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.1
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.6 J
172 (CL7)	0.0 ND	0.3 J	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.5 J
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFB%:	56	112	63	62	55
PCB#103%:	76	115	68	54	46
PCB#198%:	73	144 Q	68	62	55

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	STA 20	STA 10	STA 10	STA 9	STA 24
ID:	BIVALVES	ISOPODS	STURGEON	CORREGONUS MUKSOM	STURGEON
LABSAMNO:	C11951	C11952	C11953	C11954	C11955
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	08/19/93	08/11/93	08/11/93	08/11/93	08/25/93
RECEIPT DATE:	09/03/93	09/03/93	09/03/93	09/03/93	09/03/93
QCBATCH:	M1422	M881	M1422	M881	M881
EXTRACTION DATE:	08/22/94	09/15/94	08/22/94	09/15/94	09/15/93
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	09/08/94		09/08/94		
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	09/29/94	11/11/94	09/29/94	11/11/94	11/12/94
MATRIX:	TISSUE	TISSUE	TISSUE	TISSUE	TISSUE
SUBMAT:					
WETWT:	0.18	2.20	0.56	0.88	0.68
DRYWT:	0.05	0.51	0.18	0.21	0.29
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	26.4%	23.1%	32.0%	24.1%	43.1%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:	No Sample Left	1.77	46.20		26.50
Surrogate Recoveries					
PAH's:					
NAPHD8:	48	NA	58	NA	NA
ACEND10:	47	NA	66	NA	NA
PHEND10:	48	NA	67	NA	NA
CHRYD12:	49	NA	64	NA	NA
PERYD12:	23 Q	NA	52	NA	NA
PESTICIDES & PCB's:					
DBOFB:	710 M	67	57	73	77
PCB#103:	3859 M	128 Q	69	72	70
PCB#198:	5355 M	103	69	86	90

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	STA 20	STA 10	STA 10	STA 9	STA 24
ID:	BIVALVES	ISOPODS	STURGEON	CORREGONUS MUKSOM	STURGEON
LABSAMNO:	C11951	C11952	C11953	C11954	C11955
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	281.0	NA	126.7	NA	NA
C1-NAPHTHALENES	286.0 J	NA	114.1	NA	NA
C2-NAPHTHALENES	ND	NA	ND	NA	NA
C3-NAPHTHALENES	ND	NA	ND	NA	NA
C4-NAPHTHALENES	ND	NA	ND	NA	NA
BIPHENYL	97.3 J	NA	43.9 J	NA	NA
ACENAPHTHYLENE	6.7 J	NA	6.7 J	NA	NA
ACENAPHTHENE	46.4 J	NA	7.0 J	NA	NA
FLUORENE	32.1 J	NA	19.0 J	NA	NA
C1-FLUORENES	ND	NA	ND	NA	NA
C2-FLUORENES	ND	NA	ND	NA	NA
C3-FLUORENES	ND	NA	ND	NA	NA
PHENANTHRENE	152.9	NA	45.8	NA	NA
ANTHRACENE	27.0 J	NA	1.8 J	NA	NA
C1-PHEN_ANTHR	ND	NA	ND	NA	NA
C2-PHEN_ANTHR	ND	NA	ND	NA	NA
C3-PHEN_ANTHR	ND	NA	ND	NA	NA
C4-PHEN_ANTHR	ND	NA	ND	NA	NA
DIBENZOTHTIO	31.3 J	NA	7.3 J	NA	NA
C1-DIBEN	ND	NA	ND	NA	NA
C2-DIBEN	ND	NA	ND	NA	NA
C3-DIBEN	ND	NA	ND	NA	NA
FLUORANTHENE	43.0 J	NA	10.7 J	NA	NA
PYRENE	41.2 J	NA	12.8	NA	NA
C1-FLUORAN_PYR	ND	NA	ND	NA	NA
BENaANTHRACENE	9.1 J	NA	2.2 J	NA	NA
CHRYSENE	23.2 J	NA	12.8 J	NA	NA
C1-CHRYSENES	ND	NA	ND	NA	NA
C2-CHRYSENES	ND	NA	ND	NA	NA
C3-CHRYSENES	ND	NA	ND	NA	NA
C4-CHRYSENES	ND	NA	ND	NA	NA
BENbFLUORAN	3.9 J	NA	2.4 J	NA	NA
BENkFLUORAN	3.9 J	NA	2.4 J	NA	NA
BENePYRENE	18.3 J	NA	3.5 J	NA	NA
BENaPYRENE	7.0 J	NA	0.7 J	NA	NA
PERYLENE	19.7 J	NA	3.3 J	NA	NA
I123cdPYRENE	1.0 J	NA	0.9 J	NA	NA
DBahANTHRA	1.1 J	NA	1.7 J	NA	NA
BghiPERYLENE	2.2 J	NA	2.5 J	NA	NA
TOTAL PAH's	1114.3 J	NA	424.9	NA	NA
(w/o PERYLENE)					

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	STA 20	STA 10	STA 10	STA 9	STA 24
ID:	BIVALVES	ISOPODS	STURGEON	CORREGONUS MUKSOM	STURGEON
LABSAMNO:	C11951	C11952	C11953	C11954	C11955
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	181.0 J	NA	72.0	NA	NA
1-METHYLNAPH	105.1 J	NA	42.1	NA	NA
2,6-DIMETHNAPH	39.7 J	NA	24.2 J	NA	NA
1,6,7-TRIMETHNAPH	22.3 J	NA	18.5 J	NA	NA
1-METHYLPHEN	59.5 J	NA	3.0 J	NA	NA
Surrogate Recoveries					
NAPHD8:	48	NA	58	NA	NA
ACEND10:	47	NA	66	NA	NA
PHEND10:	48	NA	67	NA	NA
CHRYD12:	49	NA	64	NA	NA
PERYD12:	23 Q	NA	52	NA	NA

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	STA 20	STA 10	STA 10	STA 9	STA 24
ID:	BIVALVES	ISPODS	STURGEON	CORREGONUS MUKSOM	STURGEON
LABSAMNO:	C11951	C11952	C11953	C11954	C11955
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.0 ND	5.2 J	11.9 J	42.3	21.8
TOT CHLORDANES (ALL)	0.0 ND	3.8 J	5.9 J	12.8 J	26.8
TOT CHLORDANES (S&T)	0.0 ND	2.7 J	5.9 J	10.6 J	16.2
TOTAL DDTs	0.0 ND	38.1	1010.6	98.4	800.9
TOTAL PCBs	0.0 ND	27.6 J	173.8 J	85.5 J	485.5 J
ALPHA-BHC	0.0 ND	5.2	11.9	0.0 ND	10.4
HCB	0.0 ND	4.0	17.7	11.3	15.3
BETA-BHC	0.0 ND	0.0 ND	0.0 ND	5.3	4.9
GAMMA-BHC	0.0 ND	0.0 ND	0.0 ND	31.4	6.4
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	5.5	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	1.6 J	2.8 J
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.9 J	2.5 J
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.8
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	5.9	5.7
TRANS-NONACHLOR	0.0 ND	2.7	5.9	3.1 J	7.6
CIS-NONACHLOR	0.0 ND	1.1 J	0.0 ND	1.3 J	4.3
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	36.5	0.0 ND	0.0 ND	2.3 J	7.1
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	25.1
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.6 J
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	2.7 J	0.0 ND	8.5
4,4'DDE (P,P'DDE)	0.0 ND	9.2	475.3	38.4	368.1
2,4'DDD (O,P'DDD)	0.0 ND	0.6 J	29.9	2.6 J	24.2
4,4'DDD (P,P'DDD)	0.0 ND	22.7	405.0	57.4	309.9
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	55.9	0.0 ND	32.3
4,4'DDT (P,P'DDT)	0.0 ND	5.7	41.8	0.0 ND	57.9

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	STA 20	STA 10	STA 10	STA 9	STA 24
ID:	BIVALVES	ISOPODS	STURGEON	CORREGONUS MUKSOM	STURGEON
LABSAMNO:	C11951	C11952	C11953	C11954	C11955
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	1.9 J	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	6.1 J	12.0
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.7 J
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	5.2 J	12.9
66 (CL4)	0.0 ND	0.0 ND	9.0 J	0.0 ND	3.8 J
101 (CL5)	0.0 ND	0.0 ND	9.3 J	6.0 J	22.0
105 (CL5)	0.0 ND	0.0 ND	8.7 J	0.0 ND	18.3
110/77 (CL5/4)	0.0 ND	0.0 ND	24.9	8.8 J	79.5
118/108/149 (CL5/5/6)	0.0 ND	2.7 J	12.8	2.3 J	31.4
128 (CL6)	0.0 ND	0.0 ND	6.5 J	0.0 ND	10.4
138 (CL6)	14.5 J	6.8	26.6	12.3	50.0
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	4.2	26.9	0.0 ND	47.0
170 (CL7)	5.6 J	11.5	0.0 ND	17.3	27.2
180 (CL7)	0.0 ND	0.0 ND	5.6 J	0.0 ND	9.2
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	4.0 J
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.6 J
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.0 J
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.2 J
OTHER PCB CONGENERS					
7 (CL2)	9.3 J	0.0 ND	0.0 ND	0.0 ND	0.9 J
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	4.9 J	11.5
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.5 J
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	8.4 J	2.8 J
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.8 J
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	5229.0 M	0.0 ND	234.8 M	0.0 ND	1.6 J
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	4.6 J

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	STA 20	STA 10	STA 10	STA 9	STA 24
ID:	BIVALVES	ISOPODS	STURGEON	CORREGONUS MUKSOM	STURGEON
LABSAMNO:	C11951	C11952	C11953	C11954	C11955
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB #(CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	4.7 J
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.4 J
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	6.2 J
99 (CL5)	0.0 ND	2.5 J	14.2	6.2 J	24.0
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	1.5 J	8.4
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	1.4 J	9.6
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	5.0 J
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.8 J
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	4.5 J
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.8 J
149 (CL6)	0.0 ND	0.0 ND	6.8 J	0.7 J	14.6
188 (CL7)	0.0 ND	0.0 ND	19.0	0.0 ND	2.2 J
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.6 J
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	8.8
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.8 J
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.9 J
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.2 J
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.1 J
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.4 J
183 (CL7)	0.0 ND	0.0 ND	3.7 J	3.1 J	4.7 J
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.8 J
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	2.3 J
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.8 J
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	10.5
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	1.2 J	1.4 J
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.8 J
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.4 J
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DFOB%:	710 M	67	57	73	77
PCB#103%:	3859 M	128 Q	69	72	70
PCB#198%:	5355 M	103	69	86	90

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	STA 24	Station 19	Station 19	Station 21	Station 21
ID:	STURGEON	Bivalves	Isopods	Bivalves	Isopods
LABSAMNO:	C11955	C13786	C13787	C13788	C13789
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	08/25/93	08/19/93	08/19/93	08/20/93	08/20/93
RECEIPT DATE:	09/03/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M1422	M959	M959	M959	M959
EXTRACTION DATE:	08/22/94	04/26/94	04/26/94	04/26/94	04/26/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	09/08/94	05/31/94	05/31/94	05/31/94	05/31/94
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	09/28/94	06/24/94	06/24/94	06/24/94	06/24/94
MATRIX:	TISSUE	TISSUE	TISSUE	TISSUE	TISSUE
SUBMAT:					
WETWT:	0.58	1.61	10.47	1.71	2.81
DRYWT:	0.24	0.14	2.01	0.47	0.06
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	41.1%	8.7%	19.2%	28.0%	2.2%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:	59.44	8.30	4.68	3.88	2.24
Surrogate Recoveries					
PAH's:					
NAPHD8:	47	64	49	57	66
ACEND10:	55	64	58	59	64
PHEND10:	56	61	58	65	62
CHRYD12:	48	55	72	74	61
PERYD12:	35 Q	43	46	47	47
PESTICIDES & PCB's:					
DBOFB:	59	65	70	67	67
PCB#103:	61	76	77	78	77
PCB#198:	65	71	77	77	75

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	STA 24	Station 19	Station 19	Station 21	Station 21
ID:	STURGEON	Bivalves	Isopods	Bivalves	Isopods
LABSAMNO:	C11955	C13786	C13787	C13788	C13789
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	90.6	111.2	10.5	29.7	2.2 J
C1-NAPHTHALENES	100.7	91.9 J	9.7	26.2 J	2.1 J
C2-NAPHTHALENES	120.5	ND	ND	ND	ND
C3-NAPHTHALENES	288.9	ND	ND	ND	ND
C4-NAPHTHALENES	ND	ND	ND	ND	ND
BIPHENYL	32.9 J	21.2 J	2.1 J	7.3 J	0.8 J
ACENAPHTHYLENE	4.0 J	10.5 J	0.6 J	1.1 J	0.3 J
ACENAPHTHENE	13.0 J	5.7 J	1.2 J	3.2 J	0.2 J
FLUORENE	16.9 J	16.3 J	1.4 J	2.6 J	0.2 J
C1-FLUORENES	ND	ND	ND	ND	ND
C2-FLUORENES	ND	ND	ND	ND	ND
C3-FLUORENES	ND	ND	ND	ND	ND
PHENANTHRENE	37.1	18.1 J	2.8	6.2 J	0.6 J
ANTHRACENE	2.3 J	5.2 J	0.3 J	1.2 J	0.2 J
C1-PHEN_ANTHR	ND	ND	ND	ND	ND
C2-PHEN_ANTHR	ND	ND	ND	ND	ND
C3-PHEN_ANTHR	ND	ND	ND	ND	ND
C4-PHEN_ANTHR	ND	ND	ND	ND	ND
DIBENZOTHIO	17.0	9.4 J	1.0 J	1.8 J	0.2 J
C1-DIBEN	ND	ND	ND	ND	ND
C2-DIBEN	ND	ND	ND	ND	ND
C3-DIBEN	ND	ND	ND	ND	ND
FLUORANTHENE	11.0 J	9.5 J	1.7 J	7.0 J	0.3 J
PYRENE	9.6	7.9 J	1.3	4.0 J	0.3 J
C1-FLUORAN_PYR	ND	ND	ND	ND	ND
BENaANTHRACENE	2.0 J	3.9 J	0.4 J	4.0 J	0.1 J
CHRYSENE	3.8 J	27.5 J	1.1 J	6.9 J	0.2 J
C1-CHRYSENES	ND	ND	ND	ND	ND
C2-CHRYSENES	ND	ND	ND	ND	ND
C3-CHRYSENES	ND	ND	ND	ND	ND
C4-CHRYSENES	ND	ND	ND	ND	ND
BENbFLUORAN	1.2 J	6.0 J	0.3 J	4.3 J	0.1 J
BENkFLUORAN	1.2 J	6.0 J	0.3 J	4.3 J	0.0 J
BENePYRENE	4.4 J	8.6 J	3.6	5.7	0.4 J
BENaPYRENE	0.7 J	8.8 J	0.3 J	0.7 J	0.1 J
PERYLENE	2.4 J	14.1 J	5.1	28.6	0.3 J
I123cdPYRENE	0.7 J	5.3 J	0.6 J	1.4 J	0.2 J
DBahANTHRA	1.0 J	7.0 J	0.2 J	1.5 J	0.1 J
BghiPERYLENE	1.1 J	7.5 J	0.2 J	2.6 J	0.1 J
TOTAL PAH's	760.4	387.2 J	39.3	121.4	8.7
(w/o PERYLENE)					

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	STA 24	Station 19	Station 19	Station 21	Station 21
ID:	STURGEON	Bivalves	Isopods	Bivalves	Isopods
LABSAMNO:	C11955	C13786	C13787	C13788	C13789
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	50.5	53.6 J	5.2	17.0 J	1.1 J
1-METHYLNAPH	50.2	38.3 J	4.5	9.1 J	1.0 J
2,6-DIMETHNAPH	29.6 J	21.7 J	1.9 J	5.5 J	0.6 J
1,6,7-TRIMETHNAPH	7.1 J	14.8 J	0.6 J	2.8 J	0.7 J
1-METHYLPHEN	2.0 J	6.1 J	0.9 J	2.8 J	0.2 J
Surrogate Recoveries					
NAPHD8:	47	64	49	57	66
ACEND10:	55	64	58	59	64
PHEND10:	56	61	58	65	62
CHRYD12:	48	55	72	74	61
PERYD12:	35 Q	43	46	47	47

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	STA 24	Station 19	Station 19	Station 21	Station 21
ID:	STURGEON	Bivalves	Isopods	Bivalves	Isopods
LABSAMNO:	C11955	C13786	C13787	C13788	C13789
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	20.5	12.8 J	4.9	7.5 J	0.5 J
TOT CHLORDANES (ALL)	25.9 J	10.2 J	9.8	2.7 J	0.5 J
TOT CHLORDANES (S&T)	16.6 J	6.1 J	4.9	1.5 J	0.2 J
TOTAL DDTs	649.7	6.6 J	0.5 J	3.9 J	0.0 ND
TOTAL PCBs	455.9 J	33.2 J	10.9 J	9.4 J	0.3 J
ALPHA-BHC	14.4	8.3	1.8	2.9	0.2 J
HCB	18.9	2.4 J	0.7	0.7 J	0.1 J
BETA-BHC	0.0 ND	0.0 ND	2.7	1.1 J	0.3 J
GAMMA-BHC	6.0	4.5 J	0.4 J	1.2 J	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	2.3	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	3.8 J	2.1 J	1.6	0.5 J	0.1 J
OXYCHLORDANE	2.2 J	1.1 J	2.5	0.8 J	0.2 J
GAMMA-CHLORDANE	4.2 J	1.6 J	0.2 J	0.4 J	0.0 ND
ALPHA-CHLORDANE	5.7	1.8 J	0.2 J	0.4 J	0.0 ND
TRANS-NONACHLOR	7.2	2.3 J	3.1	0.6 J	0.1 J
CIS-NONACHLOR	2.8 J	1.4 J	2.2	0.0 ND	0.1 J
ALDRIN	0.0 ND	3.9 J	0.2 J	0.9 J	0.0 ND
DIELDRIN	8.6	5.8 J	1.5	2.7	0.1 J
ENDRIN	0.0 ND	1.5 J	0.0 ND	0.0 ND	0.0 ND
MIREX	0.0 ND	0.5 J	0.1 J	0.2 J	0.0 ND
2,4'DDE (O,P'DDE)	3.9 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	258.2	4.3 J	0.0 ND	1.5 J	0.0 ND
2,4'DDD (O,P'DDD)	17.8	0.0 ND	0.0 ND	0.2 J	0.0 ND
4,4'DDD (P,P'DDD)	306.4	2.3 J	0.5 J	1.7 J	0.0 ND
2,4'DDT (O,P'DDT)	28.7	0.0 ND	0.0 ND	0.6 J	0.0 ND
4,4'DDT (P,P'DDT)	34.7	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	STA 24	Station 19	Station 19	Station 21	Station 21
ID:	STURGEON	Bivalves	Isopods	Bivalves	Isopods
LABSAMNO:	C11955	C13786	C13787	C13788	C13789
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.7 J	0.6 J	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	10.5	0.0 ND	0.2 J	0.0 ND	0.0 ND
44 (CL4)	4.6 J	0.0 ND	0.1 J	0.3 J	0.0 ND
52 (CL4)	9.5	0.0 ND	0.1 J	0.3 J	0.0 ND
66 (CL4)	20.7	0.0 ND	0.2 J	0.0 ND	0.0 ND
101 (CL5)	27.5	1.1 J	1.1	0.3 J	0.0 ND
105 (CL5)	16.6	0.0 ND	0.3 J	0.0 ND	0.0 ND
110/77 (CL5/4)	69.9	1.6 J	0.0 ND	0.9 J	0.0 ND
118/108/149 (CL5/5/6)	30.9	1.0 J	1.6	0.3 J	0.1 J
128 (CL6)	9.4	1.0 J	0.1 J	0.0 ND	0.0 ND
138 (CL6)	41.7	1.4 J	1.6	1.3 J	0.0 ND
126 (CL5)	0.0 ND	0.8 J	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	45.0	0.0 ND	2.0	0.0 ND	0.1 J
170 (CL7)	4.1 J	2.2 J	0.9 J	1.0 J	0.1 J
180 (CL7)	7.9 J	0.9 J	0.3 J	0.6 J	0.0 ND
187/182/159 (CL7/7/6)	3.8 J	0.6 J	0.0 ND	0.1 J	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.2 J	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	4.7 J	0.2 J	2.1 J	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	1.9 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	10.6	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	9.7 J	0.0 ND	0.6 J	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.8 J	0.0 ND
41/64 (CL4)	2717.0 M	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	5.7 J	0.0 ND	0.3 J	0.0 ND	0.0 ND

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	STA 24	Station 19	Station 19	Station 21	Station 21
ID:	STURGEON	Bivalves	Isopods	Bivalves	Isopods
LABSAMNO:	C11955	C13786	C13787	C13788	C13789
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB #(CHLORINATION)					
70 (CL4)	4.3 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.1 J	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	15.0	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	7.8 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	25.4	0.0 ND	1.2	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	5.3 J	0.0 ND	0.3 J	0.0 ND
97 (CL5)	8.0 J	0.0 ND	0.0 ND	0.2 J	0.0 ND
87 (CL5)	8.9	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.2 J	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	3.9 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	4.1 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	13.1	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	11.8	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	8.4	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	7.6 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	4.1 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	2.3 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	2.7 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	3.2 J	0.0 ND	0.5 J	0.2 J	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.8 J	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	1.5 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	1.2 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	5.8 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	1.8 J	0.1 J	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.6 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DEOFB%:	59	65	70	67	67
PCB#103%:	61	76	77	78	77
PCB#198%:	65	71	77	77	75

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	Station 35	Station 38	Station 45	Station 48	Station 54
ID:	Nephthys	Sipancclid	Sipancclid	Nephthys	Isopods #3
LABSAMNO:	C13790	C13791	C13792	C13793	C13794
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	09/04/93	09/04/93	09/06/93	09/06/93	09/08/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M959	M959	M959	M959	M959
EXTRACTION DATE:	04/26/94	04/26/94	04/26/94	04/26/94	04/26/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	05/31/94	05/31/94	05/31/94	05/31/94	05/31/94
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	06/25/94	06/25/94	06/25/94	06/25/94	06/25/94
MATRIX:	TISSUE	TISSUE	TISSUE	TISSUE	TISSUE
SUBMAT:					
WETWT:	5.90	10.84	5.83	0.63	7.60
DRYWT:	3.28	1.72	1.95	0.28	2.39
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	55.6%	15.8%	33.4%	43.6%	31.5%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:	1.82	5.64	0.71	4.26	4.71
Surrogate Recoveries					
PAH's:					
NAPHD8:	48	60	64	64	54
ACEND10:	52	61	67	60	56
PHEND10:	48	52	63	55	55
CHRYD12:	41	52	56	50	48
PERYD12:	40	49	47	42	44
PESTICIDES & PCB's:					
DBOFB:	48	67	68	65	54
PCB#103:	59	80	75	73	61
PCB#198:	58	77	74	73	55

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	Station 35			Station 38			Station 45			Station 48			Station 54		
ID:	Nephthys			Sipancid			Sipancid			Nephthys			Isopods #3		
LABSAMNO:	C13790			C13791			C13792			C13793			C13794		
UNIT:	ng/g			ng/g			ng/g			ng/g			ng/g		
PNA Analyte	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL
NAPHTHALENE	5.2			10.9			7.0			74.3			18.4		
C1-NAPHTHALENES	6.4			11.0			5.4 J			33.0 J			9.9		
C2-NAPHTHALENES		ND		22.2				ND			ND		6.6 J		
C3-NAPHTHALENES		ND		33.8				ND			ND			ND	
C4-NAPHTHALENES		ND		18.6				ND			ND			ND	
BIPHENYL	1.4 J			4.5 J			2.5 J			9.7 J			2.0 J		
ACENAPHTHYLENE	0.6 J			0.5 J			0.6 J			1.8 J			0.2 J		
ACENAPHTHENE	0.8 J			1.1 J			0.8 J			4.2 J			2.2 J		
FLUORENE	0.5 J			3.0 J			0.7 J			4.4 J			0.8 J		
C1-FLUORENES		ND		2.6 J				ND			ND		4.4 J		
C2-FLUORENES		ND			ND			ND			ND		6.7 J		
C3-FLUORENES		ND			ND			ND			ND		19.3		
PHENANTHRENE	1.1 J			4.2			2.1			10.9 J			1.9		
ANTHRACENE	0.2 J			0.8 J			0.3 J			8.3 J			0.6 J		
C1-PHEN_ANTHR		ND		4.5 J				ND			ND		16.3		
C2-PHEN_ANTHR		ND		5.5 J				ND			ND		5.8 J		
C3-PHEN_ANTHR		ND			ND			ND			ND		7.8		
C4-PHEN_ANTHR		ND			ND			ND			ND			ND	
DIBENZOTHRIO	0.7 J			2.4			0.9 J			8.3 J			0.8 J		
C1-DIBEN		ND			ND			ND			ND			ND	
C2-DIBEN		ND			ND			ND			ND			ND	
C3-DIBEN		ND			ND			ND			ND			ND	
FLUORANTHENE	0.9 J			3.0 J			1.2 J			16.2 J			0.9 J		
PYRENE	1.1			2.0			1.1 J			7.8 J			0.6 J		
C1-FLUORAN_PYR		ND		2.9 J				ND			ND			ND	
BENaANTHRACENE	0.4 J			1.9			1.0 J			6.7 J			0.4 J		
CHRYSENE	2.8			2.8 J			1.5 J			5.9 J			1.1 J		
C1-CHRYSENES		ND		3.0 J				ND			ND			ND	
C2-CHRYSENES		ND		3.4 J				ND			ND			ND	
C3-CHRYSENES		ND			ND			ND			ND			ND	
C4-CHRYSENES		ND			ND			ND			ND			ND	
BENbFLUORAN	0.4 J			3.9 J			2.1 J			5.5 J			0.6 J		
BENkFLUORAN	0.2 J			1.7 J			0.6 J			5.5 J			0.6 J		
BENePYRENE	0.6 J			2.8			1.2 J			10.7			1.6		
BENaPYRENE	0.2 J			0.9 J			0.5 J			3.9 J			0.2 J		
PERYLENE	1.1 J			14.5			5.5			19.5 J			2.6		
I123cdPYRENE	0.4 J			1.6			1.0			1.8 J			0.6 J		
DBahANTHRA	0.5 J			0.9 J			0.3 J			3.4 J			0.2 J		
BghiPERYLENE	0.5 J			2.0			1.1 J			8.3 J			0.8 J		
TOTAL PAH's	24.7			158.0			31.9			230.5 J			111.1 J		
(w/o PERYLENE)															

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	Station 35	Station 38	Station 45	Station 48	Station 54
ID:	Nephthys	Sipancid	Sipancid	Nephthys	Isopods #3
LABSAMNO:	C13790	C13791	C13792	C13793	C13794
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	3.2	6.1	3.1 J	15.8 J	5.9
1-METHYLNAPH	3.1	4.8	2.4 J	17.2 J	4.0
2,6-DIMETHNAPH	1.5 J	6.4	2.3 J	19.1 J	2.5 J
1,6,7-TRIMETHNAPH	1.1 J	5.6 J	0.8 J	3.5 J	2.3 J
1-METHYLPHEN	0.7 J	1.9 J	0.9 J	5.6 J	1.4 J
Surrogate Recoveries					
NAPHD8:	48	60	64	64	54
ACEND10:	52	61	67	60	56
PHEND10:	48	52	63	55	55
CHRYD12:	41	52	56	50	48
PERYD12:	40	49	47	42	44

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	Station 35	Station 38	Station 45	Station 48	Station 54
ID:	Nephthys	Sipancid	Sipancid	Nephthys	Isopods #3
LABSAMNO:	C13790	C13791	C13792	C13793	C13794
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	1.4	1.8 J	0.9 J	0.0 ND	3.3
TOT CHLORDANES (ALL)	0.3 J	0.5 J	0.2 J	1.1 J	5.7
TOT CHLORDANES (S&T)	0.3 J	0.3 J	0.2 J	1.1 J	2.9
TOTAL DDTs	1.7 J	1.9 J	0.2 J	5.1 J	0.9 J
TOTAL PCBs	2.5 J	13.8 J	4.0 J	6.2 J	6.4 J
ALPHA-BHC	0.6	1.0	0.7	0.0 ND	1.3
HCB	0.3 J	0.4 J	0.1 J	1.4 J	1.1
BETA-BHC	0.2 J	0.4 J	0.0 ND	0.0 ND	1.6
GAMMA-BHC	0.6	0.4 J	0.2 J	0.0 ND	0.4 J
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.2 J	0.0 ND	0.0 ND	0.6
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.7
GAMMA-CHLORDANE	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.2 J	0.1 J	0.2 J	0.7 J	0.3 J
TRANS-NONACHLOR	0.1 J	0.0 ND	0.0 ND	0.4 J	2.0
CIS-NONACHLOR	0.0 ND	0.1 J	0.0 ND	0.0 ND	1.0
ALDRIN	0.3	0.3 J	0.2 J	2.5 J	0.1 J
DIELDRIN	0.4	1.6	0.4 J	3.4 J	1.2
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
MIREX	0.1 J	0.0 ND	0.0 ND	0.5 J	0.1 J
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.2 J	0.0 ND
4,4'DDE (P,P'DDE)	1.0	0.4 J	0.2 J	2.5 J	0.1 J
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.7	0.8	0.0 ND	1.6 J	0.8
2,4'DDT (O,P'DDT)	0.0 ND	0.2 J	0.0 ND	0.3 J	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.4 J	0.0 ND	0.6 J	0.0 ND

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	Station 35	Station 38	Station 45	Station 48	Station 54
ID:	Nephthys	Sipancid	Sipancid	Nephthys	Isopods #3
LABSAMNO:	C13790	C13791	C13792	C13793	C13794
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.3 J	0.2 J	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.1 J
44 (CL4)	0.3 J	0.1 J	0.1 J	0.0 ND	0.3 J
52 (CL4)	0.3 J	0.0 ND	0.2 J	0.9 J	0.3 J
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.1 J
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.2 J	0.7 J
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.2 J	0.0 ND
118/108/149 (CL5/5/6)	0.1 J	0.0 ND	0.0 ND	0.2 J	0.6 J
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.1 J
138 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.8 J
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.2 J	0.2 J	0.1 J	0.2 J	0.8
170 (CL7)	0.4 J	0.9 J	0.4 J	1.0 J	1.0
180 (CL7)	0.1 J	0.0 ND	0.0 ND	0.0 ND	0.5 J
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 J	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.4 J	0.0 ND	0.0 ND	1.5 J	0.3 J
24 (CL3)	0.0 ND	0.2 J	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.6 J	0.1 J	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.1 J	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.5 J	0.1 J	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.5 J	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.1 J	0.1 J	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	1.1 J	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.5 J	9.5	2.0	0.4 J	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	Station 35	Station 38	Station 45	Station 48	Station 54
ID:	Nephthys	Sipancid	Sipancid	Nephthys	Isopods #3
LABSAMNO:	C13790	C13791	C13792	C13793	C13794
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL

PCB # (CHLORINATION)

70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.1 J
99 (CL5)	0.2 J	0.0 ND	0.0 ND	0.0 ND	0.5 J
83 (CL5)	0.1 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.7 J	0.1 J	0.0 ND	0.2 J
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.3 J	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.5 J	0.3 J	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.1 J	0.1 J	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.3 J	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.2 J	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

Surrogate Recoveries

DFOB%:	48	67	68	65	54
PCB#103%:	59	80	75	73	61
PCB#198%:	58	77	74	73	55

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#: Station 56
ID: Sipanclid
LABSAMNO: C13795
SAMPLE TYPE: SAMP
COLLECTION DATE: 09/08/93
RECEIPT DATE: 09/26/93
QCBATCH: M959
EXTRACTION DATE: 04/26/94
METHOD: GCMS
ANALYSIS DATE: 05/31/94
METHOD: GCECD
ANALYSIS DATE: 06/26/94
MATRIX: TISSUE
SUBMAT:
WETWT: 8.71
DRYWT: 2.55
WTUNITS: GRAMS DRY
PCTSOLIDS: 29.2%
VOL:
VOLUNITS: LITERS
Lipid Weight
% LIPIDS: 1.39
Surrogate Recoveries
PAH's:
NAPHD8: 65
ACEND10: 69
PHEND10: 65
CHRYD12: 53
PERYD12: 56
PESTICIDES & PCB's:
DBOFB: 70
PCB#103: 73
PCB#198: 63

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	Station 56
ID:	Sipanclid
LABSAMNO:	C13795
UNIT:	ng/g
PNA Analyte	Conc DB QUAL

NAPHTHALENE	7.6
C1-NAPHTHALENES	6.5 J
C2-NAPHTHALENES	ND
C3-NAPHTHALENES	ND
C4-NAPHTHALENES	ND
BIPHENYL	1.6 J
ACENAPHTHYLENE	0.3 J
ACENAPHTHENE	0.4 J
FLUORENE	0.8 J
C1-FLUORENES	ND
C2-FLUORENES	ND
C3-FLUORENES	ND
PHENANTHRENE	1.6
ANTHRACENE	0.3 J
C1-PHEN_ANTHR	ND
C2-PHEN_ANTHR	ND
C3-PHEN_ANTHR	ND
C4-PHEN_ANTHR	ND
DIBENZOTHRIO	0.7 J
C1-DIBEN	ND
C2-DIBEN	ND
C3-DIBEN	ND
FLUORANTHENE	1.6 J
PYRENE	0.8 J
C1-FLUORAN_PYR	ND
BENaANTHRACENE	1.0 J
CHRYSENE	1.2 J
C1-CHRYSENES	ND
C2-CHRYSENES	ND
C3-CHRYSENES	ND
C4-CHRYSENES	ND
BENbFLUORAN	1.5 J
BENkFLUORAN	0.7 J
BENePYRENE	1.1
BENaPYRENE	0.4 J
PERYLENE	4.0
I123cdPYRENE	0.9
DBahANTHRA	0.3 J
BghiPERYLENE	0.5 J
TOTAL PAH's	29.9
(w/o PERYLENE)	

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	Station 56
ID:	Sipanclid
LABSAMNO:	C13795
UNIT:	ng/g
Analyte (Cont)	Conc DB QUAL

2-METHYLNAPH	3.4 J
1-METHYLNAPH	3.1
2,6-DIMETHNAPH	1.8 J
1,6,7-TRIMETHNAPH	0.5 J
1-METHYLPHEN	0.7 J

Surrogate Recoveries

NAPHD8:	65
ACEND10:	69
PHEND10:	65
CHRYD12:	53
PERYD12:	56

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	Station 56
ID:	Sipanclid
LABSAMNO:	C13795
UNIT:	ng/g
Analyte (Cont)	Conc DB QUAL

TOTAL BHCs	0.5 J
TOT CHLORDANES (ALL)	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND
TOTAL DDTs	0.2 J
TOTAL PCBs	2.1 J

ALPHA-BHC	0.3 J
HCB	0.5
BETA-BHC	0.2 J
GAMMA-BHC	0.0 ND
DELTA-BHC	0.0 ND
HEPTACHLOR	0.0 ND
HEPTA-EPOXIDE	0.0 ND
OXYCHLORDANE	0.0 ND
GAMMA-CHLORDANE	0.0 ND
ALPHA-CHLORDANE	0.0 ND
TRANS-NONACHLOR	0.0 ND
CIS-NONACHLOR	0.0 ND
ALDRIN	0.5
DIELDRIN	0.7
ENDRIN	0.0 ND
MIREX	0.2 J
2,4'DDE (O,P'DDE)	0.0 ND
4,4'DDE (P,P'DDE)	0.2 J
2,4'DDD (O,P'DDD)	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	Station 56
ID:	Sipanclid
LABSAMNO:	C13795
UNIT:	ng/g
Analyte (Cont)	Conc DB QUAL

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.6 J
18 (CL3)	0.1 J
28 (CL3)	0.0 ND
44 (CL4)	0.0 ND
52 (CL4)	0.0 ND
66 (CL4)	0.0 ND
101 (CL5)	0.0 ND
105 (CL5)	0.0 ND
110/77 (CL5/4)	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND
128 (CL6)	0.0 ND
138 (CL6)	0.0 ND
126 (CL5)	0.0 ND
153 (CL6)	0.0 ND
170 (CL7)	0.4 J
180 (CL7)	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND
195 (CL8)	0.0 ND
206 (CL9)	0.0 ND
209 (CL10)	0.0 ND

OTHER PCB CONGENERS

7 (CL2)	0.0 ND
15 (CL2)	0.0 ND
24 (CL3)	0.0 ND
16/32 (CL3)	0.3 J
29 (CL3)	0.3 J
26 (CL3)	0.3 J
25 (CL3)	0.0 ND
50 (CL4)	0.0 ND
33 (CL3)	0.0 ND
22 (CL3)	0.0 ND
45 (CL4)	0.0 ND
46 (CL4)	0.0 ND
49 (CL4)	0.0 ND
47/48 (CL4)	0.0 ND
37/42 (CL4)	0.5 J
41/64 (CL4)	0.0 ND
40 (CL4)	0.0 ND
74 (CL4)	0.0 ND

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	Station 56
ID:	Sipanclid
LABSAMNO:	C13795
UNIT:	ng/g
Analyte (Cont)	Conc DB QUAL

PCB # (CHLORINATION)

70 (CL4)	0.0 ND
88 (CL5)	0.0 ND
60/56 (CL5)	0.0 ND
92? (CL5)	0.0 ND
84? (CL5)	0.0 ND
99 (CL5)	0.0 ND
83 (CL5)	0.0 ND
97 (CL5)	0.0 ND
87 (CL5)	0.0 ND
85 (CL5)	0.0 ND
136 (CL6)	0.0 ND
82 (CL5)	0.3 J
151 (CL6)	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND
149 (CL6)	0.0 ND
188 (CL7)	0.0 ND
146 (CL6)	0.0 ND
141 (CL6)	0.0 ND
137 (CL6)	0.0 ND
UNK (CL6)	0.0 ND
158 (CL7)	0.0 ND
129 (CL6)	0.0 ND
178 (CL7)	0.0 ND
183 (CL7)	0.0 ND
167 (CL6)	0.0 ND
185 (CL7)	0.0 ND
174 (CL7)	0.0 ND
177 (CL7)	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND
200 (CL8)	0.0 ND
172 (CL7)	0.0 ND
191 (CL7)	0.0 ND
201 (CL8)	0.0 ND
196 (CL8)	0.0 ND
189 (CL7)	0.0 ND
194 (CL8)	0.0 ND
205 (CL9)	0.0 ND

Surrogate Recoveries

DBOFB%:	70
PCB#103%:	73
PCB#198%:	63

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

PAHs, PCBs, and Pesticides
in Tissues
Quality Control Sample Data

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK	STURGEON	STA 24
LABSAMNO:	Q6198	Q6197	C11955	Q6199
SAMPLE TYPE:	BLANK	LBS	SAMP	MS
COLLECTION DATE:			08/25/93	
RECEIPT DATE:			09/03/93	
QCBATCH:	M881	M881	M881	M881
EXTRACTION DATE:	09/15/93	09/15/93	09/15/93	09/15/93
METHOD:	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:				
METHOD:	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	11/12/94	11/12/94	11/12/94	11/12/94
MATRIX:	TISSUE	TISSUE	TISSUE	TISSUE
SUBMAT:				
WETWT:			0.68	0.77
DRYWT:	10.00	1.00	0.29	0.33
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:			43.1%	42.7%
VOL:				
VOLUNITS:	LITERS	LITERS	LITERS	LITERS
Lipid Weight				
% LIPIDS:			26.50	28.58
Surrogate Recoveries				
PAH's:				
NAPHD8:	NA	NA	NA	NA
ACEND10:	NA	NA	NA	NA
PHEND10:	NA	NA	NA	NA
CHRYD12:	NA	NA	NA	NA
PERYD12:	NA	NA	NA	NA
PESTICIDES & PCB's:				
DBOFB:	66	74	77	75
PCB#103:	70	71	70	67
PCB#198:	74	84	90	88

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK	STURGEON	STA 24
LABSAMNO:	Q6198	Q6197	C11955	Q6199
UNIT:	ng/g	%	ng/g	%
PNA Analyte	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

NAPHTHALENE

C1-NAPHTHALENES QCBATCH M881 Aromatic Recoveries were low for these samples
C2-NAPHTHALENES Aromatic data is not reported here. Re-Extracted: See QCBATCH M1422
C3-NAPHTHALENES
C4-NAPHTHALENES

BIPHENYL

ACENAPHTHYLENE

ACENAPHTHENE

FLUORENE

C1-FLUORENES

C2-FLUORENES

C3-FLUORENES

PHENANTHRENE

ANTHRACENE

C1-PHEN_ANTHR

C2-PHEN_ANTHR

C3-PHEN_ANTHR

C4-PHEN_ANTHR

DIBENZOTHRIO

C1-DIBEN

C2-DIBEN

C3-DIBEN

FLUORANTHENE

PYRENE

C1-FLUORAN_PYR

BENaANTHRACENE

CHRYSENE

C1-CHRYSENES

C2-CHRYSENES

C3-CHRYSENES

C4-CHRYSENES

BENbFLUORAN

BENkFLUORAN

BENePYRENE

BENaPYRENE

PERYLENE

I123cdPYRENE

DBahANTHRA

BghiPERYLENE

TOTAL PAH's

(w/o PERYLENE)

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK	STURGEON	STA 24
LABSAMNO:	Q6198	Q6197	C11955	Q6199
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

2-METHYLNAPH QCBATCH M881 Aromatic Recoveries were low for these samples

1-METHYLNAPH Aromatic data is not reported here. Re-Extracted: See QCBATCH M1422

2,6-DIMETHNAPH

1,6,7-TRIMETHNAPH

1-METHYLPHEN

Surrogate Recoveries

NAPHD8:	NA	NA	NA	NA
ACEND10:	NA	NA	NA	NA
PHEND10:	NA	NA	NA	NA
CHRYD12:	NA	NA	NA	NA
PERYD12:	NA	NA	NA	NA

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK	STURGEON	STA 24
LABSAMNO:	Q6198	Q6197	C11955	Q6199
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
TOTAL BHCs	0.0 ND		21.8	
TOT CHLORDANES (ALL)	0.0 ND		26.8	
TOT CHLORDANES (S&T)	0.0 ND	AVERAGE %	16.2	AVERAGE %
TOTAL DDTs	0.3 J	RECOVERY	800.9	RECOVERY
TOTAL PCBs	6.1 J	106	485.5 J	109
ALPHA-BHC	0.0 ND	120	10.4	123 Q
HCB	0.1 J	85	15.3	63
BETA-BHC	0.0 ND	84	4.9	86
GAMMA-BHC	0.0 ND	122 Q	6.4	125 Q
DELTA-BHC	0.0 ND	113	0.0 ND	120
HEPTACHLOR	0.0 ND	90	0.0 ND	95
HEPTA-EPOXIDE	0.0 ND	95	2.8 J	101
OXYCHLORDANE	0.0 ND	118	2.5 J	116
GAMMA-CHLORDANE	0.0 ND	103	3.8	110
ALPHA-CHLORDANE	0.0 ND	109	5.7	106
TRANS-NONACHLOR	0.0 ND	100	7.6	105
CIS-NONACHLOR	0.0 ND	101	4.3	104
ALDRIN	0.0 ND	111	0.0 ND	117
DIELDRIN	0.0 ND	96	7.1	108
ENDRIN	0.0 ND	87	25.1	117
MIREX	0.0 ND	99	0.6 J	110
2,4'DDE (O,P'DDE)	0.0 ND	96	8.5	95
4,4'DDE (P,P'DDE)	0.3	114	368.1	118
2,4'DDD (O,P'DDD)	0.0 ND	113	24.2	132 Q
4,4'DDD (P,P'DDD)	0.0 ND	122 Q	309.9	146 Q
2,4'DDT (O,P'DDT)	0.0 ND	104	32.3	101
4,4'DDT (P,P'DDT)	0.0 ND	105	57.9	112

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK	STURGEON	STA 24
LABSAMNO:	Q6198	Q6197	C11955	Q6199
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	95	0.0 ND	95
18 (CL3)	0.0 ND	94	0.0 ND	99
28 (CL3)	0.0 ND	109	12.0	108
44 (CL4)	0.0 ND	105	3.7 J	102
52 (CL4)	0.0 ND	97	12.9	98
66 (CL4)	0.0 ND	109	3.8 J	110
101 (CL5)	0.1 J	104	22.0	93
105 (CL5)	0.0 ND	118	18.3	109
110/77 (CL5/4)	0.0 ND	116	79.5	108
118/108/149 (CL5/5/6)	0.0 ND	115	31.4	118
128 (CL6)	0.0 ND	119	10.4	126 Q
138 (CL6)	1.8	119	50.0	117
126 (CL5)	0.0 ND	118	0.0 ND	122 Q
153 (CL6)	0.0 ND	83	47.0	85
170 (CL7)	3.2	122 Q	27.2	112
180 (CL7)	0.2 J	115	9.2	120
187/182/159 (CL7/7/6)	0.0 ND	106	4.0 J	113
195 (CL8)	0.0 ND	119	0.6 J	132 Q
206 (CL9)	0.0 ND	105	1.0 J	117
209 (CL10)	0.0 ND	109	0.2 J	118

OTHER PCB CONGENERS

7 (CL2)	0.2	NA	0.9 J	NA
15 (CL2)	0.0 ND	NA	0.0 ND	NA
24 (CL3)	0.0 ND	NA	0.0 ND	NA
16/32 (CL3)	0.0 ND	NA	0.0 ND	NA
29 (CL3)	0.0 ND	NA	0.0 ND	NA
26 (CL3)	0.0 ND	NA	0.0 ND	NA
25 (CL3)	0.0 ND	NA	11.5	NA
50 (CL4)	0.3	98	2.5 J	101
33 (CL3)	0.0 ND	NA	2.8 J	NA
22 (CL3)	0.0 ND	NA	0.8 J	NA
45 (CL4)	0.0 ND	NA	0.0 ND	NA
46 (CL4)	0.0 ND	NA	0.0 ND	NA
49 (CL4)	0.3	NA	0.0 ND	NA
47/48 (CL4)	0.0 ND	NA	0.0 ND	NA
37/42 (CL4)	0.0 ND	NA	0.0 ND	NA
41/64 (CL4)	0.0 ND	NA	1.6 J	NA
40 (CL4)	0.0 ND	NA	0.0 ND	NA
74 (CL4)	0.0 ND	NA	4.6 J	NA

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK	STURGEON	STA 24
LABSAMNO:	Q6198	Q6197	C11955	Q6199
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

PCB # (CHLORINATION)

70 (CL4)	0.0 ND	NA	4.7 J	NA
88 (CL5)	0.0 ND	NA	2.4 J	NA
60/56 (CL5)	0.0 ND	NA	0.0 ND	NA
92? (CL5)	0.0 ND	NA	0.0 ND	NA
84? (CL5)	0.0 ND	NA	6.2 J	NA
99 (CL5)	0.0 ND	NA	24.0	NA
83 (CL5)	0.0 ND	NA	0.0 ND	NA
97 (CL5)	0.0 ND	NA	8.4	NA
87 (CL5)	0.0 ND	109	9.6	108
85 (CL5)	0.0 ND	NA	5.0 J	NA
136 (CL6)	0.0 ND	NA	0.0 ND	NA
82 (CL5)	0.0 ND	NA	3.8 J	NA
151 (CL6)	0.0 ND	NA	4.5 J	NA
107/108/144 (CL5/5/6)	0.0 ND	NA	3.8 J	NA
149 (CL6)	0.0 ND	NA	14.6	NA
188 (CL7)	0.0 ND	101	2.2 J	100
146 (CL6)	0.0 ND	NA	3.6 J	NA
141 (CL6)	0.0 ND	NA	8.8	NA
137 (CL6)	0.0 ND	NA	3.8 J	NA
UNK (CL6)	0.0 ND	NA	1.9 J	NA
158 (CL7)	0.0 ND	NA	3.2 J	NA
129 (CL6)	0.0 ND	NA	1.1 J	NA
178 (CL7)	0.0 ND	NA	1.4 J	NA
183 (CL7)	0.0 ND	NA	4.7 J	NA
167 (CL6)	0.0 ND	NA	0.8 J	NA
185 (CL7)	0.0 ND	NA	0.0 ND	NA
174 (CL7)	0.0 ND	NA	2.3 J	NA
177 (CL7)	0.0 ND	NA	1.8 J	NA
156/171/202 (CL6/7/8)	0.0 ND	NA	10.5	NA
200 (CL8)	0.0 ND	NA	0.0 ND	NA
172 (CL7)	0.2	NA	1.4 J	NA
191 (CL7)	0.0 ND	NA	0.0 ND	NA
201 (CL8)	0.0 ND	NA	0.0 ND	NA
196 (CL8)	0.0 ND	NA	0.0 ND	NA
189 (CL7)	0.0 ND	NA	0.8 J	NA
194 (CL8)	0.0 ND	NA	0.4 J	NA
205 (CL9)	0.0 ND	NA	0.0 ND	NA

Surrogate Recoveries

DBOFB%:	66	74	77	75
PCB#103%:	70	71	70	67
PCB#198%:	74	84	90	88

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE
ID:	STURGEON	STA 24
LABSAMNO:	C11955	Q6196
SAMPLE TYPE:	SAMP	DUP
COLLECTION DATE:	08/25/93	
RECEIPT DATE:	09/03/93	
QCBATCH:	M881	M881
EXTRACTION DATE:	09/15/93	09/15/93
METHOD:	GCMS	GCMS
ANALYSIS DATE:		
METHOD:	GCECD	GCECD
ANALYSIS DATE:	11/12/94	11/12/94
MATRIX:	TISSUE	TISSUE
SUBMAT:		
WETWT:	0.68	0.68
DRYWT:	0.29	0.29
WTUNITS:	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	43.1%	42.8%
VOL:		
VOLUNITS:	LITERS	LITERS
Lipid Weight		
% LIPIDS:	26.50	28.43
Surrogate Recoveries		
PAH's:		
NAPHD8:	NA	NA
ACEND10:	NA	NA
PHEND10:	NA	NA
CHRYD12:	NA	NA
PERYD12:	NA	NA
PESTICIDES & PCB's:		
DBOFB:	77	80
PCB#103:	70	74
PCB#198:	90	91

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE
ID:	STURGEON	STA 24
LABSAMNO:	C11955	Q6196
UNIT:	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL ‡ RPD

NAPHTHALENE

C1-NAPHTHALENES QCBATCH M881 Aromatic Recoveries were low for these samples
C2-NAPHTHALENES Aromatic data is not reported here. Re-Extracted: See QCBATCH M1422
C3-NAPHTHALENES
C4-NAPHTHALENES

BIPHENYL

ACENAPHTHYLENE

ACENAPHTHENE

FLUORENE

C1-FLUORENES

C2-FLUORENES

C3-FLUORENES

PHENANTHRENE

ANTHRACENE

C1-PHEN_ANTHR

C2-PHEN_ANTHR

C3-PHEN_ANTHR

C4-PHEN_ANTHR

DIBENZOTHIQ

C1-DIBEN

C2-DIBEN

C3-DIBEN

FLUORANTHENE

PYRENE

C1-FLUORAN_PYR

BENaANTHRACENE

CHRYSENE

C1-CHRYSENES

C2-CHRYSENES

C3-CHRYSENES

C4-CHRYSENES

BENbFLUORAN

BENkFLUORAN

BENePYRENE

BENaPYRENE

PERYLENE

I123cdPYRENE

DBahANTHRA

BghiPERYLENE

TOTAL PAH's
(w/o PERYLENE)

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE
ID:	STURGEON	STA 24
LABSAMNO:	C11955	Q6196
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

2-METHYLNAPH QCBATCH M881 Aromatic Recoveries were low for these samples
1-METHYLNAPH Aromatic data is not reported here. Re-Extracted: See QCBATCH M1422

2,6-DIMETHNAPH

1,6,7-TRIMETHNAPH

1-METHYLPHEN

Surrogate Recoveries

NAPHD8:	NA	NA
ACEND10:	NA	NA
PHEND10:	NA	NA
CHRYD12:	NA	NA
PERYD12:	NA	NA

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE		
ID:	STURGEON	STA 24		
LABSAMNO:	C11955	Q6196		
UNIT:	ng/g	ng/g		
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD	

TOTAL BHCs	21.8	21.2	2
TOT CHLORDANES (ALL)	26.8	26.2	2
TOT CHLORDANES (S&T)	16.2	15.7	3
TOTAL DDTs	800.9	756.6	6
TOTAL PCBs	485.5 J	486.1 J	
ALPHA-BHC	10.4	10.3	1
HCB	15.3	15.7	3
BETA-BHC	4.9	5.0	2
GAMMA-BHC	6.4	5.9	8
DELTA-BHC	0.0 ND	0.0 ND	
HEPTACHLOR	0.0 ND	0.0 ND	
HEPTA-EPOXIDE	2.8 J	2.9 J	
OXYCHLORDANE	2.5 J	2.4 J	
GAMMA-CHLORDANE	3.8	4.7	22
ALPHA-CHLORDANE	5.7	5.5	3
TRANS-NONACHLOR	7.6	7.3	5
CIS-NONACHLOR	4.3	3.4 J	23
ALDRIN	0.0 ND	0.0 ND	
DIELDRIN	7.1	8.2	14
ENDRIN	25.1	25.6	2
MIREX	0.6 J	0.7 J	
2,4'DDE (O,P'DDE)	8.5	7.1	19
4,4'DDE (P,P'DDE)	368.1	347.9	6
2,4'DDD (O,P'DDD)	24.2	23.5	3
4,4'DDD (P,P'DDD)	309.9	288.2	7
2,4'DDT (O,P'DDT)	32.3	31.2	3
4,4'DDT (P,P'DDT)	57.9	58.7	1

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE	
ID:	STURGEON	STA 24	
LABSAMNO:	C11955	Q6196	
UNIT:	ng/g	ng/g	
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	0.0 ND	
18 (CL3)	0.0 ND	0.0 ND	
28 (CL3)	12.0	12.8	6
44 (CL4)	3.7 J	3.8 J	
52 (CL4)	12.9	9.7	28
66 (CL4)	3.8 J	3.4 J	
101 (CL5)	22.0	21.5	2
105 (CL5)	18.3	16.3	12
110/77 (CL5/4)	79.5	81.3	2
118/108/149 (CL5/5/6)	31.4	29.9	5
128 (CL6)	10.4	10.3	1
138 (CL6)	50.0	53.2	6
126 (CL5)	0.0 ND	0.0 ND	
153 (CL6)	47.0	46.7	1
170 (CL7)	27.2	31.9	16
180 (CL7)	9.2	9.4	2
187/182/159 (CL7/7/6)	4.0 J	3.5 J	
195 (CL8)	0.6 J	0.6 J	
206 (CL9)	1.0 J	0.9 J	
209 (CL10)	0.2 J	0.2 J	

OTHER PCB CONGENERS

7 (CL2)	0.9 J	0.8 J	
15 (CL2)	0.0 ND	0.0 ND	
24 (CL3)	0.0 ND	0.0 ND	
16/32 (CL3)	0.0 ND	0.0 ND	
29 (CL3)	0.0 ND	0.0 ND	
26 (CL3)	0.0 ND	0.0 ND	
25 (CL3)	11.5	11.5	0
50 (CL4)	2.5 J	3.1 J	
33 (CL3)	2.8 J	2.9 J	
22 (CL3)	0.8 J	1.0 J	
45 (CL4)	0.0 ND	0.0 ND	
46 (CL4)	0.0 ND	0.0 ND	
49 (CL4)	0.0 ND	0.0 ND	
47/48 (CL4)	0.0 ND	0.0 ND	
37/42 (CL4)	0.0 ND	0.0 ND	
41/64 (CL4)	1.6 J	1.4 J	
40 (CL4)	0.0 ND	0.0 ND	
74 (CL4)	4.6 J	4.2 J	

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE	
ID:	STURGEON	STA 24	
LABSAMNO:	C11955	Q6196	
UNIT:	ng/g	ng/g	
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD

PCB # (CHLORINATION)

70 (CL4)	4.7 J	3.9 J	
88 (CL5)	2.4 J	2.4 J	
60/56 (CL5)	0.0 ND	0.0 ND	
92? (CL5)	0.0 ND	0.0 ND	
84? (CL5)	6.2 J	5.3 J	
99 (CL5)	24.0	22.6	6
83 (CL5)	0.0 ND	0.0 ND	
97 (CL5)	8.4	9.8	16
87 (CL5)	9.6	10.7	11
85 (CL5)	5.0 J	4.9 J	
136 (CL6)	0.0 ND	0.0 ND	
82 (CL5)	3.8 J	4.2 J	
151 (CL6)	4.5 J	4.5 J	
107/108/144 (CL5/5/6)	3.8 J	3.6 J	
149 (CL6)	14.6	13.2	10
188 (CL7)	2.2 J	2.2 J	
146 (CL6)	3.6 J	3.5 J	
141 (CL6)	8.8	8.8	0
137 (CL6)	3.8 J	3.6 J	
UNK (CL6)	1.9 J	2.4 J	
158 (CL7)	3.2 J	3.8 J	
129 (CL6)	1.1 J	1.0 J	
178 (CL7)	1.4 J	1.4 J	
183 (CL7)	4.7 J	4.3 J	
167 (CL6)	0.8 J	0.8 J	
185 (CL7)	0.0 ND	0.0 ND	
174 (CL7)	2.3 J	2.3 J	
177 (CL7)	1.8 J	1.8 J	
156/171/202 (CL6/7/8)	10.5	9.1	14
200 (CL8)	0.0 ND	0.0 ND	
172 (CL7)	1.4 J	1.4 J	
191 (CL7)	0.0 ND	0.0 ND	
201 (CL8)	0.0 ND	0.0 ND	
196 (CL8)	0.0 ND	0.0 ND	
189 (CL7)	0.8 J	0.7 J	
194 (CL8)	0.4 J	0.4 J	
205 (CL9)	0.0 ND	0.0 ND	

Surrogate Recoveries

DBOFB%:	77	80
PCB#103%:	70	74
PCB#198%:	90	91

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK
LABSAMNO:	Q7929	Q7930
SAMPLE TYPE:	BLANK	LBS
COLLECTION DATE:		
RECEIPT DATE:		
QCBATCH:	M959	M959
EXTRACTION DATE:	04/26/94	04/26/94
METHOD:	GCMS	GCMS
ANALYSIS DATE:	05/31/94	05/31/94
METHOD:	GCECD	GCECD
ANALYSIS DATE:	06/26/94	06/26/94
MATRIX:	TISSUE	TISSUE
SUBMAT:		
WETWT:		
DRYWT:	10.00	1.00
WTUNITS:	GRAMS DRY	GRAMS DRY
PCTSOLIDS:		
VOL:		
VOLUNITS:	LITERS	LITERS
Lipid Weight		
% LIPIDS:		
Surrogate Recoveries		
PAH's:		
NAPHD8:	68	69
ACEND10:	69	67
PHEND10:	66	72
CHRYD12:	53	63
PERYD12:	38 Q	30 Q
PESTICIDES & PCB's:		
DBOFB:	68	73
PCB#103:	74	77
PCB#198:	69	68

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK
LABSAMNO:	Q7929	Q7930
UNIT:	ng/g	%
PNA Analyte	Conc DB QUAL	Recovery DB QUAL
NAPHTHALENE	0.8 J	101
C1-NAPHTHALENES	0.8 J	NA
C2-NAPHTHALENES	ND	NA
C3-NAPHTHALENES	ND	NA
C4-NAPHTHALENES	ND	NA
BIPHENYL	0.3 J	99
ACENAPHTHYLENE	0.1 J	98
ACENAPHTHENE	0.3 J	98
FLUORENE	0.3 J	94
C1-FLUORENES	ND	NA
C2-FLUORENES	ND	NA
C3-FLUORENES	ND	NA
PHENANTHRENE	0.2 J	81
ANTHRACENE	0.0 J	74
C1-PHEN_ANTHR	ND	NA
C2-PHEN_ANTHR	ND	NA
C3-PHEN_ANTHR	ND	NA
C4-PHEN_ANTHR	ND	NA
DIBENZOTHRIO	0.1 J	81
C1-DIBEN	ND	NA
C2-DIBEN	ND	NA
C3-DIBEN	ND	NA
FLUORANTHENE	0.1 J	80
PYRENE	0.1 J	79
C1-FLUORAN_PYR	ND	NA
BENaANTHRACENE	0.1 J	77
CHRYSENE	0.0 J	117
C1-CHRYSENES	ND	NA
C2-CHRYSENES	ND	NA
C3-CHRYSENES	ND	NA
C4-CHRYSENES	ND	NA
BENbFLUORAN	0.0 J	98
BENkFLUORAN	0.0 J	90
BENePYRENE	0.1 J	107
BENaPYRENE	0.1 J	92
PERYLENE	0.1 J	99
I123cdPYRENE	0.1 J	73
DBahANTHRA	0.1 J	74
BghiPERYLENE	0.1 J	83
TOTAL PAH's	3.4 J	AVG % RECOV
(w/o PERYLENE)		90

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK
LABSAMNO:	Q7929	Q7930
UNIT:	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL

2-METHYLNAPH	0.4 J	91
1-METHYLNAPH	0.4 J	96
2,6-DIMETHNAPH	0.2 J	98
1,6,7-TRIMETHNAPH	0.1 J	92
1-METHYLPHEN	0.1 J	78

Surrogate Recoveries

NAPHD8:	68	69
ACEND10:	69	67
PHEND10:	66	72
CHRYD12:	53	63
PERYD12:	38 Q	30 Q

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK
LABSAMNO:	Q7929	Q7930
UNIT:	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL

TOTAL BHCs	0.0 ND	
TOT CHLORDANES (ALL)	0.0 ND	
TOT CHLORDANES (S&T)	0.0 ND	AVERAGE %
TOTAL DDTs	0.0 ND	RECOVERY
TOTAL PCBs	0.4 J	86
ALPHA-BHC	0.0 ND	82
HCB	0.0 ND	70
BETA-BHC	0.0 ND	70
GAMMA-BHC	0.0 ND	86
DELTA-BHC	0.0 ND	72
HEPTACHLOR	0.0 ND	85
HEPTA-EPOXIDE	0.0 ND	60
OXYCHLORDANE	0.0 ND	124 Q
GAMMA-CHLORDANE	0.0 ND	93
ALPHA-CHLORDANE	0.0 ND	89
TRANS-NONACHLOR	0.0 ND	85
CIS-NONACHLOR	0.0 ND	94
ALDRIN	0.3	80
DIELDRIN	0.0 ND	70
ENDRIN	0.0 ND	64
MIREX	0.0 ND	93
2,4'DDE (O,P'DDE)	0.0 ND	66
4,4'DDE (P,P'DDE)	0.0 ND	69
2,4'DDD (O,P'DDD)	0.0 ND	65
4,4'DDD (P,P'DDD)	0.0 ND	80
2,4'DDT (O,P'DDT)	0.0 ND	91
4,4'DDT (P,P'DDT)	0.0 ND	82

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK
LABSAMNO:	Q7929	Q7930
UNIT:	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	103
18 (CL3)	0.0 ND	98
28 (CL3)	0.0 ND	90
44 (CL4)	0.0 ND	96
52 (CL4)	0.0 ND	101
66 (CL4)	0.0 ND	85
101 (CL5)	0.0 ND	93
105 (CL5)	0.0 ND	83
110/77 (CL5/4)	0.0 ND	92
118/108/149 (CL5/5/6)	0.0 ND	88
128 (CL6)	0.0 ND	93
138 (CL6)	0.0 ND	91
126 (CL5)	0.0 ND	83
153 (CL6)	0.0 ND	69
170 (CL7)	0.4	90
180 (CL7)	0.0 ND	78
187/182/159 (CL7/7/6)	0.0 ND	87
195 (CL8)	0.0 ND	85
206 (CL9)	0.0 ND	83
209 (CL10)	0.0 ND	95

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	NA
15 (CL2)	0.0 ND	NA
24 (CL3)	0.0 ND	NA
16/32 (CL3)	0.0 ND	NA
29 (CL3)	0.0 ND	NA
26 (CL3)	0.0 ND	NA
25 (CL3)	0.0 ND	NA
50 (CL4)	0.0 ND	109
33 (CL3)	0.0 ND	NA
22 (CL3)	0.0 ND	NA
45 (CL4)	0.0 ND	NA
46 (CL4)	0.0 ND	NA
49 (CL4)	0.0 ND	NA
47/48 (CL4)	0.0 ND	NA
37/42 (CL4)	0.0 ND	NA
41/64 (CL4)	0.0 ND	NA
40 (CL4)	0.0 ND	NA
74 (CL4)	0.0 ND	NA

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK
LABSAMNO:	Q7929	Q7930
UNIT:	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL

PCB # (CHLORINATION)

70 (CL4)	0.0 ND	NA
88 (CL5)	0.0 ND	NA
60/56 (CL5)	0.0 ND	NA
92? (CL5)	0.0 ND	NA
84? (CL5)	0.0 ND	NA
99 (CL5)	0.0 ND	NA
83 (CL5)	0.0 ND	NA
97 (CL5)	0.0 ND	NA
87 (CL5)	0.0 ND	138 Q
85 (CL5)	0.0 ND	NA
136 (CL6)	0.0 ND	NA
82 (CL5)	0.0 ND	NA
151 (CL6)	0.0 ND	NA
107/108/144 (CL5/5/6)	0.0 ND	NA
149 (CL6)	0.0 ND	NA
188 (CL7)	0.0 ND	58
146 (CL6)	0.0 ND	NA
141 (CL6)	0.0 ND	NA
137 (CL6)	0.0 ND	NA
UNK (CL6)	0.0 ND	NA
158 (CL7)	0.0 ND	NA
129 (CL6)	0.0 ND	NA
178 (CL7)	0.0 ND	NA
183 (CL7)	0.0 ND	NA
167 (CL6)	0.0 ND	NA
185 (CL7)	0.0 ND	NA
174 (CL7)	0.0 ND	NA
177 (CL7)	0.0 ND	NA
156/171/202 (CL6/7/8)	0.0 ND	NA
200 (CL8)	0.0 ND	NA
172 (CL7)	0.0 ND	NA
191 (CL7)	0.0 ND	NA
201 (CL8)	0.0 ND	NA
196 (CL8)	0.0 ND	NA
189 (CL7)	0.0 ND	NA
194 (CL8)	0.0 ND	NA
205 (CL9)	0.0 ND	NA

Surrogate Recoveries

DBOFB%:	68	73
PCB#103%:	74	77
PCB#198%:	69	68

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	Station 19	LAB QA SAMPLE
ID:	Isopods	Station 19
LABSAMNO:	C13787	Q7928
SAMPLE TYPE:	SAMP	DUP
COLLECTION DATE:	08/19/93	08/19/93
RECEIPT DATE:	09/26/93	09/26/93
QCBATCH:	M959	M959
EXTRACTION DATE:	04/26/94	04/26/94
METHOD:	GCMS	GCMS
ANALYSIS DATE:	05/31/94	05/31/94
METHOD:	GCECD	GCECD
ANALYSIS DATE:	06/24/94	06/26/94
MATRIX:	TISSUE	TISSUE
SUBMAT:		
WETWT:	10.47	10.09
DRYWT:	2.01	1.94
WTUNITS:	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	19.2%	19.2%
VOL:		
VOLUNITS:	LITERS	LITERS
Lipid Weight		
% LIPIDS:	4.68	4.64
Surrogate Recoveries		
PAH's:		
NAPHD8:	49	67
ACEND10:	58	69
PHEND10:	58	58
CHRYD12:	72	54
PERYD12:	46	50
PESTICIDES & PCB's:		
DBOFB:	70	67
PCB#103:	77	73
PCB#198:	77	65

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	Station 19	LAB QA SAMPLE	
ID:	Isopods	Station 19	
LABSAMNO:	C13787	Q7928	
UNIT:	ng/g	ng/g	
PNA Analyte	Conc DB QUAL	Conc DB QUAL	% RPD
NAPHTHALENE	10.5	9.1	14
C1-NAPHTHALENES	9.7	8.6 J	11
C2-NAPHTHALENES	ND	11.8	
C3-NAPHTHALENES	ND	ND	
C4-NAPHTHALENES	ND	ND	
BIPHENYL	2.1 J	2.2 J	
ACENAPHTHYLENE	0.6 J	0.5 J	
ACENAPHTHENE	1.2 J	0.9 J	
FLUORENE	1.4 J	0.8 J	
C1-FLUORENES	ND	ND	
C2-FLUORENES	ND	ND	
C3-FLUORENES	ND	ND	
PHENANTHRENE	2.8	2.7	6
ANTHRACENE	0.3 J	0.6 J	
C1-PHEN_ANTHR	ND	ND	
C2-PHEN_ANTHR	ND	ND	
C3-PHEN_ANTHR	ND	ND	
C4-PHEN_ANTHR	ND	ND	
DIBENZOTHTIO	1.0 J	0.8 J	
C1-DIBEN	ND	ND	
C2-DIBEN	ND	ND	
C3-DIBEN	ND	ND	
FLUORANTHENE	1.7 J	1.5 J	
PYRENE	1.3	1.6	17
C1-FLUORAN_PYR	ND	ND	
BENaANTHRACENE	0.4 J	1.4 J	
CHRYSENE	1.1 J	7.6	151
C1-CHRYSENES	ND	ND	
C2-CHRYSENES	ND	ND	
C3-CHRYSENES	ND	ND	
C4-CHRYSENES	ND	ND	
BENbFLUORAN	0.3 J	2.0 J	
BENkFLUORAN	0.3 J	2.0 J	
BENePYRENE	3.6	6.2	54
BENaPYRENE	0.3 J	1.4 J	
PERYLENE	5.1	11.8	80
I123cdPYRENE	0.6 J	0.6 J	
DBahANTHRA	0.2 J	0.3 J	
BghiPERYLENE	0.2 J	0.4 J	
TOTAL PAH's	39.3	62.7 J	46
(w/o PERYLENE)			

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	Station 19	LAB QA SAMPLE	
ID:	Isopods	Station 19	
LABSAMNO:	C13787	Q7928	
UNIT:	ng/g	ng/g	
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD

2-METHYLNAPH	5.2	5.1 J	2
1-METHYLNAPH	4.5	3.5 J	23
2,6-DIMETHNAPH	1.9 J	2.9 J	
1,6,7-TRIMETHNAPH	0.6 J	1.3 J	
1-METHYLPHEN	0.9 J	1.1 J	

Surrogate Recoveries

NAPHD8:	49	67
ACEND10:	58	69
PHEND10:	58	58
CHRYD12:	72	54
PERYD12:	46	50

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	Station 19	LAB QA SAMPLE	
ID:	Isopods	Station 19	
LABSAMNO:	C13787	Q7928	
UNIT:	ng/g	ng/g	
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD
TOTAL BHCs	4.9	4.7	5
TOT CHLORDANES (ALL)	9.8	10.6	8
TOT CHLORDANES (S&T)	4.9	5.1	4
TOTAL DDTs	0.5 J	0.5 J	
TOTAL PCBs	10.9 J	10.9 J	
ALPHA-BHC	1.8	1.8	0
HCB	0.7	0.7	9
BETA-BHC	2.7	2.5	9
GAMMA-BHC	0.4 J	0.4 J	
DELTA-BHC	0.0 ND	0.0 ND	
HEPTACHLOR	0.0 ND	0.0 ND	
HEPTA-EPOXIDE	1.6	1.6	1
OXYCHLORDANE	2.5	3.0	17
GAMMA-CHLORDANE	0.2 J	0.2 J	
ALPHA-CHLORDANE	0.2 J	0.2 J	
TRANS-NONACHLOR	3.1	3.3	7
CIS-NONACHLOR	2.2	2.3	7
ALDRIN	0.2 J	0.2 J	
DIELDRIN	1.5	2.0	26
ENDRIN	0.0 ND	0.0 ND	
MIREX	0.1 J	0.1 J	
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND	
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	
4,4'DDD (P,P'DDD)	0.5 J	0.5	
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	Station 19	LAB QA SAMPLE
ID:	Isopods	Station 19
LABSAMNO:	CL3787	Q7928
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.7 J	0.7 J	
18 (CL3)	0.0 ND	0.0 ND	
28 (CL3)	0.2 J	0.2 J	
44 (CL4)	0.1 J	0.1 J	
52 (CL4)	0.1 J	0.2 J	
66 (CL4)	0.2 J	0.2 J	
101 (CL5)	1.1	1.4	22
105 (CL5)	0.3 J	0.3 J	
110/77 (CL5/4)	0.0 ND	0.0 ND	
118/108/149 (CL5/5/6)	1.6	1.3	17
128 (CL6)	0.1 J	0.1 J	
138 (CL6)	1.6	1.6	1
126 (CL5)	0.0 ND	0.0 ND	
153 (CL6)	2.0	1.9	5
170 (CL7)	0.9 J	1.3	
180 (CL7)	0.3 J	0.3 J	
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	
195 (CL8)	0.0 ND	0.0 ND	
206 (CL9)	0.0 ND	0.0 ND	
209 (CL10)	0.0 ND	0.0 ND	

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	0.0 ND
15 (CL2)	0.2 J	0.2 J
24 (CL3)	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND
74 (CL4)	0.3 J	0.2 J

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	Station 19	LAB QA SAMPLE
ID:	Isopods	Station 19
LABSAMNO:	C13787	Q7928
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD
PCB # (CHLORINATION)		
70 (CL4)	0.0 ND	0.0 ND
88 (CL5)	0.1 J	0.1 J
60/56 (CL5)	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND
99 (CL5)	1.2	1.0 J
83 (CL5)	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND
85 (CL5)	0.2 J	0.2 J
136 (CL6)	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND
183 (CL7)	0.5 J	0.4 J
167 (CL6)	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND
172 (CL7)	0.1 J	0.1 J
191 (CL7)	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND
Surrogate Recoveries		
DBOFB%:	70	67
PCB#103%:	77	73
PCB#198%:	77	65

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	BLANK SPIKE	STURGEON	STA 24
LABSAMNO:	Q9732	Q9734	C11955	Q9735
SAMPLE TYPE:	BLANK	LBS	SAMP	MS
COLLECTION DATE:			08/25/93	08/25/93
RECEIPT DATE:			09/03/93	09/03/93
QCBATCH:	M1422	M1422	M1422	M1422
EXTRACTION DATE:	08/22/94	08/22/94	08/22/94	08/22/94
METHOD:	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	09/07/94	09/07/94	09/08/94	09/07/94
METHOD:	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	09/28/94	09/28/94	09/28/94	09/28/94
MATRIX:	TISSUE	TISSUE	TISSUE	TISSUE
SUBMAT:				
WETWT:			0.58	0.55
DRYWT:	10.00	1.00	0.24	0.22
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:			41.1%	40.4%
VOL:				
VOLUNITS:	LITERS	LITERS	LITERS	LITERS
Lipid Weight				
% LIPIDS:			59.44	58.19
Surrogate Recoveries				
PAH's:				
NAPHD8:	63	52	47	53
ACEND10:	59	53	55	61
PHEND10:	54	65	56	67
CHRYD12:	48	58	48	61
PERYD12:	21 Q	15 Q	35 Q	19 Q
PESTICIDES & PCB's:				
DBOFB:	52	56	59	56
PCB#103:	68	59	61	62
PCB#198:	70	65	65	69

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	BLANK SPIKE	STURGEON	STA 24
LABSAMNO:	Q9732	Q9734	C11955	Q9735
UNIT:	ng/g	%	ng/g	%
PNA Analyte	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
NAPHTHALENE	2.5	120	90.6	109
C1-NAPHTHALENES	1.3 J	NA	100.7	NA
C2-NAPHTHALENES	ND	NA	120.5	NA
C3-NAPHTHALENES	ND	NA	288.9	NA
C4-NAPHTHALENES	ND	NA	ND	NA
BIPHENYL	1.3 J	113	32.9 J	101
ACENAPHTHYLENE	0.1 J	113	4.0 J	98
ACENAPHTHENE	0.1 J	109	13.0 J	101
FLUORENE	0.6 J	120	16.9 J	104
C1-FLUORENES	ND	NA	ND	NA
C2-FLUORENES	ND	NA	ND	NA
C3-FLUORENES	ND	NA	ND	NA
PHENANTHRENE	1.1	97	37.1	95
ANTHRACENE	0.1 J	81	2.3 J	73
C1-PHEN_ANTHR	ND	NA	ND	NA
C2-PHEN_ANTHR	ND	NA	ND	NA
C3-PHEN_ANTHR	ND	NA	ND	NA
C4-PHEN_ANTHR	ND	NA	ND	NA
DIBENZOTHRIO	0.2 J	85	17.0	80
C1-DIBEN	ND	NA	ND	NA
C2-DIBEN	ND	NA	ND	NA
C3-DIBEN	ND	NA	ND	NA
FLUORANTHENE	0.4 J	109	11.0 J	106
PYRENE	0.2 J	96	9.6	98
C1-FLUORAN_PYR	ND	NA	ND	NA
BENaANTHRACENE	0.1 J	99	2.0 J	103
CHRYSENE	0.7 J	111	3.8 J	114
C1-CHRYSENES	ND	NA	ND	NA
C2-CHRYSENES	ND	NA	ND	NA
C3-CHRYSENES	ND	NA	ND	NA
C4-CHRYSENES	ND	NA	ND	NA
BENbFLUORAN	0.2 J	89	1.2 J	84
BENkFLUORAN	0.2 J	89	1.2 J	84
BENePYRENE	0.1 J	110	4.4 J	110
BENaPYRENE	0.1 J	81	0.7 J	73
PERYLENE	0.1 J	115	2.4 J	98
I123cdPYRENE	0.0 J	68	0.7 J	67
DBahANTHRA	0.1 J	69	1.0 J	62
BghiPERYLENE	0.1 J	91	1.1 J	90
TOTAL PAH's	9.3 J	AVG % RECOV	760.4	AVG % RECOV
(w/o PERYLENE)		102		96

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	BLANK SPIKE	STURGEON	STA 24
LABSAMNO:	Q9732	Q9734	C11955	Q9735
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
2-METHYLNAPH	0.7 J	113	50.5	108
1-METHYLNAPH	0.6 J	117	50.2	117
2,6-DIMETHNAPH	0.4 J	114	29.6 J	99
1,6,7-TRIMETHNAPH	0.2 J	127	7.1 J	112
1-METHYLPHEN	0.1 J	112	2.0 J	115
Surrogate Recoveries				
NAPHD8:	63	52	47	53
ACEND10:	59	53	55	61
PHEND10:	54	65	56	67
CHRYD12:	48	58	48	61
PERYD12:	21 Q	15 Q	35 Q	19 Q

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	BLANK SPIKE	STURGEON	STA 24
LABSAMNO:	Q9732	Q9734	C11955	Q9735
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
TOTAL BHCs	0.0 ND		20.5	
TOT CHLORDANES (ALL)	0.0 ND		25.9 J	
TOT CHLORDANES (S&T)	0.0 ND	AVERAGE %	16.6 J	AVERAGE %
TOTAL DDTs	0.0 ND	RECOVERY	649.7	RECOVERY
TOTAL PCBs	0.0 M	109	3172.9	108
ALPHA-BHC	0.0 ND	86	14.4	76
HCB	0.0 ND	101	18.9	105
BETA-BHC	0.0 ND	85	0.0 ND	91
GAMMA-BHC	0.0 ND	100	6.0	93
DELTA-BHC	0.0 ND	88	0.0 ND	90
HEPTACHLOR	0.0 ND	102	0.0 ND	106
HEPTA-EPOXIDE	0.0 ND	94	3.8 J	87
OXYCHLORDANE	0.0 ND	116	2.2 J	114
GAMMA-CHLORDANE	0.0 ND	109	4.2 J	109
ALPHA-CHLORDANE	0.0 ND	108	5.7	97
TRANS-NONACHLOR	0.0 ND	108	7.2	110
CIS-NONACHLOR	0.0 ND	108	2.8 J	105
ALDRIN	0.0 ND	95	0.0 ND	97
DIELDRIN	0.0 ND	99	8.6	95
ENDRIN	0.0 ND	103	0.0 ND	110
MIREX	0.0 ND	112	0.0 ND	123 Q
2,4'DDE (O,P'DDE)	0.0 ND	99	3.9 J	77
4,4'DDE (P,P'DDE)	0.0 ND	101	258.2	109
2,4'DDD (O,P'DDD)	0.0 ND	102	17.8	105
4,4'DDD (P,P'DDD)	0.0 ND	114	306.4	132 Q
2,4'DDT (O,P'DDT)	0.0 ND	108	28.7	100
4,4'DDT (P,P'DDT)	0.0 ND	118	34.7	113

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	BLANK SPIKE	STURGEON	STA 24
LABSAMNO:	Q9732	Q9734	C11955	Q9735
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	98	0.0 ND	109
18 (CL3)	0.0 ND	114	0.0 ND	119
28 (CL3)	0.0 ND	117	10.5	115
44 (CL4)	0.0 ND	114	4.6 J	114
52 (CL4)	0.0 ND	117	9.5	116
66 (CL4)	0.0 ND	114	20.7	109
101 (CL5)	0.0 ND	116	27.5	112
105 (CL5)	0.0 ND	119	16.6	110
110/77 (CL5/4)	0.0 ND	132 Q	69.9	136 Q
118/108/149 (CL5/5/6)	0.0 ND	119	30.9	119
128 (CL6)	0.0 ND	119	9.4	116
138 (CL6)	0.0 ND	119	41.7	111
126 (CL5)	0.0 ND	129 Q	0.0 ND	126 Q
153 (CL6)	0.0 ND	90	45.0	89
170 (CL7)	0.7	112	4.1 J	117
180 (CL7)	0.0 ND	111	7.9 J	119
187/182/159 (CL7/7/6)	0.0 ND	118	3.8 J	114
195 (CL8)	0.0 ND	119	0.0 ND	119
206 (CL9)	0.0 ND	102	0.0 ND	101
209 (CL10)	0.0 ND	116	0.0 ND	116

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	NA	0.0 ND	NA
15 (CL2)	0.0 ND	NA	0.0 ND	NA
24 (CL3)	0.0 ND	NA	0.0 ND	NA
16/32 (CL3)	0.0 ND	NA	0.0 ND	NA
29 (CL3)	0.0 ND	NA	0.0 ND	NA
26 (CL3)	0.0 ND	NA	1.9 J	NA
25 (CL3)	0.0 ND	NA	10.6	NA
50 (CL4)	0.0 ND	112	0.0 ND	116
33 (CL3)	0.0 ND	NA	0.0 ND	NA
22 (CL3)	0.0 ND	NA	0.0 ND	NA
45 (CL4)	0.0 ND	NA	0.0 ND	NA
46 (CL4)	0.0 ND	NA	0.0 ND	NA
49 (CL4)	0.0 ND	NA	0.0 ND	NA
47/48 (CL4)	0.0 ND	NA	0.0 ND	NA
37/42 (CL4)	0.0 ND	NA	0.0 ND	NA
41/64 (CL4)	518.0 M	NA	2717.0 M	NA
40 (CL4)	0.0 ND	NA	0.0 ND	NA
74 (CL4)	0.0 ND	NA	5.7 J	NA

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STA 24	LAB QA SAMPLE
ID:	PROC BLANK	BLANK SPIKE	STURGEON	STA 24
LABSAMNO:	Q9732	Q9734	C11955	Q9735
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

PCB # (CHLORINATION)

70 (CL4)	0.0 ND	NA	4.3 J	NA
88 (CL5)	0.0 ND	NA	0.0 ND	NA
60/56 (CL5)	1.6	NA	0.0 ND	NA
92? (CL5)	0.0 ND	NA	15.0	NA
84? (CL5)	0.0 ND	NA	7.8 J	NA
99 (CL5)	0.0 ND	NA	25.4	NA
83 (CL5)	0.0 ND	NA	0.0 ND	NA
97 (CL5)	0.0 ND	NA	8.0 J	NA
87 (CL5)	0.0 ND	113	8.9	108
85 (CL5)	0.0 ND	NA	0.0 ND	NA
136 (CL6)	0.0 ND	NA	0.0 ND	NA
82 (CL5)	0.0 ND	NA	0.0 ND	NA
151 (CL6)	0.0 ND	NA	3.9 J	NA
107/108/144 (CL5/5/6)	0.0 ND	NA	4.1 J	NA
149 (CL6)	0.0 ND	NA	13.1	NA
188 (CL7)	0.0 ND	113	11.8	116
146 (CL6)	0.0 ND	NA	8.4	NA
141 (CL6)	0.0 ND	NA	7.6 J	NA
137 (CL6)	0.0 ND	NA	4.1 J	NA
UNK (CL6)	0.0 ND	NA	2.3 J	NA
158 (CL7)	0.0 ND	NA	2.7 J	NA
129 (CL6)	0.0 ND	NA	0.0 ND	NA
178 (CL7)	0.0 ND	NA	0.0 ND	NA
183 (CL7)	0.0 ND	NA	3.2 J	NA
167 (CL6)	0.0 ND	NA	0.0 ND	NA
185 (CL7)	0.0 ND	NA	0.0 ND	NA
174 (CL7)	0.0 ND	NA	1.5 J	NA
177 (CL7)	0.0 ND	NA	1.2 J	NA
156/171/202 (CL6/7/8)	0.0 ND	NA	5.8 J	NA
200 (CL8)	0.0 ND	NA	0.0 ND	NA
172 (CL7)	0.0 ND	NA	0.0 ND	NA
191 (CL7)	0.0 ND	NA	0.0 ND	NA
201 (CL8)	0.0 ND	NA	0.0 ND	NA
196 (CL8)	0.0 ND	NA	0.0 ND	NA
189 (CL7)	0.0 ND	NA	0.6 J	NA
194 (CL8)	0.0 ND	NA	0.0 ND	NA
205 (CL9)	0.0 ND	NA	0.0 ND	NA

Surrogate Recoveries

DBOFB%:	52	56	59	56
PCB#103%:	68	59	61	62
PCB#198%:	70	65	65	69

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE
ID:	STURGEON	STA 24
LABSAMNO:	C11955	Q9733
SAMPLE TYPE:	SAMP	DUP
COLLECTION DATE:	08/25/93	08/25/93
RECEIPT DATE:	09/03/93	09/03/93
QCBATCH:	M1422	M1422
EXTRACTION DATE:	08/22/94	08/22/94
METHOD:	GCMS	GCMS
ANALYSIS DATE:	09/08/94	09/07/94
METHOD:	GCECD	GCECD
ANALYSIS DATE:	09/28/94	09/28/94
MATRIX:	TISSUE	TISSUE
SUBMAT:		
WETWT:	0.58	0.55
DRYWT:	0.24	0.23
WTUNITS:	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	41.1%	41.5%
VOL:		
VOLUNITS:	LITERS	LITERS
Lipid Weight		
% LIPIDS:	59.44	55.35
Surrogate Recoveries		
PAH's:		
NAPHD8:	47	49
ACEND10:	55	69
PHEND10:	56	57
CHRYD12:	48	57
PERYD12:	35 Q	41
PESTICIDES & PCB's:		
DBOFB:	59	56
PCB#103:	61	71
PCB#198:	65	73

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE		
ID:	STURGEON	STA 24		
LABSAMNO:	C11955	Q9733		
UNIT:	ng/g	ng/g		
PNA Analyte	Conc DB QUAL	Conc DB QUAL	% RPD	
NAPHTHALENE	90.6	75.8	18	
C1-NAPHTHALENES	100.7	88.8	13	
C2-NAPHTHALENES	120.5	164.5	31	
C3-NAPHTHALENES	ND	ND		
C4-NAPHTHALENES	ND	ND		
BIPHENYL	32.9 J	22.7 J		
ACENAPHTHYLENE	4.0 J	4.6 J		
ACENAPHTHENE	13.0 J	6.0 J		
FLUORENE	16.9 J	20.1 J		
C1-FLUORENES	ND	ND		
C2-FLUORENES	ND	ND		
C3-FLUORENES	ND	ND		
PHENANTHRENE	37.1	45.1	20	
ANTHRACENE	2.3 J	5.5 J		
C1-PHEN_ANTHR	ND	ND		
C2-PHEN_ANTHR	ND	ND		
C3-PHEN_ANTHR	ND	ND		
C4-PHEN_ANTHR	ND	ND		
DIBENZOTHRIO	17.0	9.8 J		
C1-DIBEN	ND	ND		
C2-DIBEN	ND	ND		
C3-DIBEN	ND	ND		
FLUORANTHENE	11.0 J	10.6 J		
PYRENE	9.6	8.9 J		
C1-FLUORAN_PYR	ND	ND		
BENaANTHRACENE	2.0 J	1.2 J		
CHRYSENE	3.8 J	7.9 J		
C1-CHRYSENES	ND	ND		
C2-CHRYSENES	ND	ND		
C3-CHRYSENES	ND	ND		
C4-CHRYSENES	ND	ND		
BENbFLUORAN	1.2 J	2.6 J		
BENkFLUORAN	1.2 J	2.6 J		
BENePYRENE	4.4 J	2.8 J		
BENaPYRENE	0.7 J	0.9 J		
PERYLENE	2.4 J	4.2 J		
I123cdPYRENE	0.7 J	1.6 J		
DBahANTHRA	1.0 J	0.5 J		
BghiPERYLENE	1.1 J	2.0 J		
TOTAL PAH's	471.5	484.4	3	
(w/o PERYLENE)				

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE		
ID:	STURGEON	STA 24		
LABSAMNO:	C11955	Q9733		
UNIT:	ng/g	ng/g		
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD	
2-METHYLNAPH	50.5	40.7 J		
1-METHYLNAPH	50.2	48.1	4	
2,6-DIMETHNAPH	29.6 J	30.1 J		
1,6,7-TRIMETHNAPH	7.1 J	10.2 J		
1-METHYLPHEN	2.0 J	24.1 J		
Surrogate Recoveries				
NAPHD8:	47	49		
ACEND10:	55	69		
PHEND10:	56	57		
CHRYD12:	48	57		
PERYD12:	35 Q	41		

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE	
ID:	STURGEON	STA 24	
LABSAMNO:	C11955	Q9733	
UNIT:	ng/g	ng/g	
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD
TOTAL BHCs	20.5	20.7	1
TOT CHLORDANES (ALL)	25.9 J	24.9 J	
TOT CHLORDANES (S&T)	16.6 J	16.0 J	
TOTAL DDTs	649.7	659.6	2
TOTAL PCBs	455.9 J	478.4 J	5
ALPHA-BHC	14.4	13.9	4
HCB	18.9	18.2	4
BETA-BHC	0.0 ND	0.0 ND	
GAMMA-BHC	6.0	6.9	13
DELTA-BHC	0.0 ND	0.0 ND	
HEPTACHLOR	0.0 ND	0.0 ND	
HEPTA-EPOXIDE	3.8 J	3.2 J	
OXYCHLORDANE	2.2 J	2.1 J	
GAMMA-CHLORDANE	4.2 J	4.2 J	
ALPHA-CHLORDANE	5.7	5.9	5
TRANS-NONACHLOR	7.2	6.9	4
CIS-NONACHLOR	2.8 J	2.6 J	
ALDRIN	0.0 ND	0.0 ND	
DIELDRIN	8.6	7.7	11
ENDRIN	0.0 ND	0.0 ND	
MIREX	0.0 ND	0.0 ND	
2,4'DDE (O,P'DDE)	3.9 J	4.0 J	
4,4'DDE (P,P'DDE)	258.2	256.3	1
2,4'DDD (O,P'DDD)	17.8	17.9	1
4,4'DDD (P,P'DDD)	306.4	311.0	2
2,4'DDT (O,P'DDT)	28.7	32.5	12
4,4'DDT (P,P'DDT)	34.7	37.8	8

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE	
ID:	STURGEON	STA 24	
LABSAMNO:	CI1955	Q9733	
UNIT:	ng/g	ng/g	
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	0.0 ND	
18 (CL3)	0.0 ND	0.0 ND	
28 (CL3)	10.5	9.6	9
44 (CL4)	4.6 J	4.2 J	
52 (CL4)	9.5	9.8	3
66 (CL4)	20.7	19.4	7
101 (CL5)	27.5	31.8	14
105 (CL5)	16.6	17.8	7
110/77 (CL5/4)	69.9	72.1	3
118/108/149 (CL5/5/6)	30.9	33.0	6
128 (CL6)	9.4	10.5	11
138 (CL6)	41.7	45.5	9
126 (CL5)	0.0 ND	0.0 ND	
153 (CL6)	45.0	47.9	6
170 (CL7)	4.1 J	4.2 J	
180 (CL7)	7.9 J	7.9 J	
187/182/159 (CL7/7/6)	3.8 J	3.6 J	
195 (CL8)	0.0 ND	0.0 ND	
206 (CL9)	0.0 ND	0.0 ND	
209 (CL10)	0.0 ND	0.0 ND	

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	0.0 ND	
15 (CL2)	0.0 ND	0.0 ND	
24 (CL3)	0.0 ND	0.0 ND	
16/32 (CL3)	0.0 ND	0.0 ND	
29 (CL3)	0.0 ND	0.0 ND	
26 (CL3)	1.9 J	2.0 J	
25 (CL3)	10.6	12.8	18
50 (CL4)	0.0 ND	0.0 ND	
33 (CL3)	0.0 ND	0.0 ND	
22 (CL3)	0.0 ND	0.0 ND	
45 (CL4)	0.0 ND	0.0 ND	
46 (CL4)	0.0 ND	0.0 ND	
49 (CL4)	0.0 ND	0.0 ND	
47/48 (CL4)	0.0 ND	0.0 ND	
37/42 (CL4)	0.0 ND	0.0 ND	
41/64 (CL4)	2717.0 M	1292.3 M	71
40 (CL4)	0.0 ND	0.0 ND	
74 (CL4)	5.7 J	5.8 J	

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:	STA 24	LAB QA SAMPLE	
ID:	STURGEON	STA 24	
LABSAMNO:	C11955	Q9733	
UNIT:	ng/g	ng/g	
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	% RPD
PCB # (CHLORINATION)			
70 (CL4)	4.3 J	3.9 J	
88 (CL5)	0.0 ND	0.0 ND	
60/56 (CL5)	0.0 ND	0.0 ND	
92? (CL5)	15.0	16.2	8
84? (CL5)	7.8 J	9.1	
99 (CL5)	25.4	26.1	2
83 (CL5)	0.0 ND	0.0 ND	
97 (CL5)	8.0 J	8.1 J	
87 (CL5)	8.9	9.5	7
85 (CL5)	0.0 ND	0.0 ND	
136 (CL6)	0.0 ND	0.0 ND	
82 (CL5)	0.0 ND	0.0 ND	
151 (CL6)	3.9 J	3.7 J	
107/108/144 (CL5/5/6)	4.1 J	3.9 J	
149 (CL6)	13.1	14.6	11
188 (CL7)	11.8	11.1	6
146 (CL6)	8.4	7.3 J	
141 (CL6)	7.6 J	9.0	
137 (CL6)	4.1 J	4.8 J	
UNK (CL6)	2.3 J	2.5 J	
158 (CL7)	2.7 J	3.1 J	
129 (CL6)	0.0 ND	0.0 ND	
178 (CL7)	0.0 ND	0.0 ND	
183 (CL7)	3.2 J	3.1 J	
167 (CL6)	0.0 ND	0.0 ND	
185 (CL7)	0.0 ND	0.0 ND	
174 (CL7)	1.5 J	1.7 J	
177 (CL7)	1.2 J	1.1 J	
156/171/202 (CL6/7/8)	5.8 J	4.9 J	
200 (CL8)	0.0 ND	0.0 ND	
172 (CL7)	0.0 ND	0.0 ND	
191 (CL7)	0.0 ND	0.0 ND	
201 (CL8)	0.0 ND	0.0 ND	
196 (CL8)	0.0 ND	0.0 ND	
189 (CL7)	0.6 J	0.6 J	
194 (CL8)	0.0 ND	0.0 ND	
205 (CL9)	0.0 ND	0.0 ND	
Surrogate Recoveries			
DBOFB%:	59	56	
PCB#103%:	61	71	
PCB#198%:	65	73	

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	LAB QA SAMPLE	LAB QA SAMPLE	LAB QA SAMPLE
ID:	GERG STD CHK III	GERG STD CHK	GERG STD CHK	GERG STD CHK	GERG STD CHK
LABSAMNO:	LABORATORY	W1828	W1080	W1082	W1084
SAMPLE TYPE:	RUNNING	REF	REF	REF	REF
COLLECTION DATE:	AVERAGE				
RECEIPT DATE:					
QCBATCH:		M1422	M959	M959	M959
EXTRACTION DATE:					
METHOD:		GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:		09/07/94	05/31/94	05/31/94	05/31/94
METHOD:		GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:					
MATRIX:		OIL	OIL	OIL	OIL
SUBMAT:					
WETWT:					
DRYWT:					
WTUNITS:					
PCTSOLIDS:					
VOL:		1.0	1.0	1.0	1.0
VOLUNITS:		AMPOULE	AMPOULE	AMPOULE	AMPOULE
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
PAH's:					
NAPHD8:		NA	NA	NA	NA
ACEND10:		NA	NA	NA	NA
PHEND10:		NA	NA	NA	NA
CHRYD12:		NA	NA	NA	NA
PERYD12:		NA	NA	NA	NA
PESTICIDES & PCB's:					
DBOFB:		NA	NA	NA	NA
PCB#103:		NA	NA	NA	NA
PCB#198:		NA	NA	NA	NA

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	LABORATORY		LAB QA SAMPLE		LAB QA SAMPLE		LAB QA SAMPLE		LAB QA SAMPLE	
ID:	RUNNING		GERG STD CHK		GERG STD CHK		GERG STD CHK		GERG STD CHK	
LABSAMNO:	AVERAGE		W1828		W1080		W1082		W1084	
UNIT:			ng/amp		ng/amp		ng/amp		ng/amp	
PNA Analyte	Average	Std Dev.	Conc	DB QUAL	Conc	DB QUAL	Conc	DB QUAL	Conc	DB QUAL
NAPHTHALENE	576.2	20.2	491.0		523.3		535.3		556.8	
C1-NAPHTHALENES	2434.8	125.9	2024.8		2197.3		2225.4		2276.9	
C2-NAPHTHALENES	1902.8	160.0	2034.8		2157.8		2158.2		2145.2	
C3-NAPHTHALENES	1440.7	217.6	1828.8		1855.8		1793.1		1769.9	
C4-NAPHTHALENES	789.3	158.7	1137.0		835.6		1050.1		1071.4	
BIPHENYL	193.9	20.4	174.8		213.5		211.9		223.3	
ACENAPHTHYLENE	1.3	0.5	1.0 J		0.5 J		0.5 J		0.9 J	
ACENAPHTHENE	17.4	1.7	15.5 J		20.6		17.9 J		19.5 J	
FLUORENE	93.2	7.6	85.8		102.2		98.8		99.8	
C1-FLUORENES	213.3	31.4	226.8		244.4		206.4		232.6	
C2-FLUORENES	343.7	35.0	437.4		433.4		394.9		408.8	
C3-FLUORENES	370.1	61.6	572.1		520.6		480.7		478.0	
PHENANTHRENE	266.0	23.0	248.3		258.7		277.1		269.5	
ANTHRACENE	5.9	2.8	5.5 J		4.8 J		4.9 J		5.9 J	
C1-PHEN_ANTHR	583.2	91.0	728.3		596.8		611.7		610.9	
C2-PHEN_ANTHR	656.2	106.3	875.5		705.3		719.1		694.1	
C3-PHEN_ANTHR	481.9	128.7	927.5		589.9		602.4		571.7	
C4-PHEN_ANTHR	212.4	75.3	566.1		233.9		192.3		233.4	
DIBENZOTHRIO	218.9	22.1	167.7		207.8		215.3		215.0	
C1-DIBEN	414.9	66.3	384.0		400.8		420.5		412.6	
C2-DIBEN	571.6	106.8	649.6		580.7		618.9		601.4	
C3-DIBEN	506.5	90.8	732.1		472.9		502.3		489.6	
FLUORANTHENE	5.0	1.1	3.8 J		3.1 J		4.4 J		3.5 J	
PYRENE	13.1	2.3	15.1 J		11.0 J		11.6 J		11.2 J	
C1-FLUORAN_PYR	94.0	18.2	125.7		76.8		87.4		78.4	
BENaANTHRACENE	5.6	1.0	5.3 J		3.9 J		5.2 J		5.7 J	
CHRYSENE	52.4	5.4	44.8		57.4		60.4		61.7	
C1-CHRYSENES	91.4	63.5	94.1		76.6		85.8		85.5	
C2-CHRYSENES	115.5	77.6	167.4		84.4		89.1		84.1	
C3-CHRYSENES	30.4	22.2	41.7		11.5 J		14.5 J		15.4 J	
C4-CHRYSENES	21.5	18.0	18.8 J		4.6 J		8.7 J		7.7 J	
BENbFLUORAN	3.5	0.4	3.6 J		3.8 J		4.2 J		4.1 J	
BENkFLUORAN	3.5	0.4	3.6 J		3.8 J		4.2 J		4.1 J	
BENePYRENE	11.3	1.1	10.8 J		11.7 J		11.6 J		11.3 J	
BENaPYRENE	2.0	0.7	2.4 J		2.2 J		2.4 J		2.9 J	
PERYLENE	2.0	0.6	2.3 J		2.1 J		2.9 J		2.6 J	
I123cdPYRENE	0.9	0.3	0.4 J		0.8 J		1.2 J		0.4 J	
DBahANTHRA	1.8	0.5	1.6 J		1.4 J		2.1 J		1.3 J	
BghiPERYLENE	4.2	0.9	3.5 J		1.9 J		2.9 J		2.4 J	
TOTAL PAH's	12750.2		14856.8		13511.5		13733.3		13766.9	
(w/o PERYLENE)										

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	LABORATORY	LAB QA SAMPLE		LAB QA SAMPLE		LAB QA SAMPLE		LAB QA SAMPLE	
ID:	RUNNING	GERG STD CHK		GERG STD CHK		GERG STD CHK		GERG STD CHK	
LABSAMNO:	AVERAGE	W1828		W1080		W1082		W1084	
UNIT:	ng/amp	ng/amp		ng/amp		ng/amp		ng/amp	
Analyte (Cont)	Average Std Dev.	Conc DB QUAL		Conc DB QUAL		Conc DB QUAL		Conc DB QUAL	
2-METHYLNAPH	1347.9	70.7	1108.4		1203.5		1218.8		1239.6
1-METHYLNAPH	1086.9	58.1	916.4		993.8		1006.6		1037.3
2,6-DIMETHNAPH	775.3	64.6	714.1		846.6		826.0		865.9
1,6,7-TRIMETHNAPH	438.9	30.2	406.0		468.6		457.9		461.7
1-METHYLPHEN	177.6	21.4	189.2		139.2		174.8		150.5
Surrogate Recoveries									
NAPHD8:			NA		NA		NA		NA
ACEND10:			NA		NA		NA		NA
PHEND10:			NA		NA		NA		NA
CHRYD12:			NA		NA		NA		NA
PERYD12:			NA		NA		NA		NA

SIBERIA TISSUES - PESTICIDE DATA - 93-D0-01

INVEST#:

ID:

LABSAMNO:

UNIT:

Analyte (Cont)

TOTAL BHCs

TOT CHLORDANES (ALL)

TOT CHLORDANES (S&T)

TOTAL DDTs

TOTAL PCBs

ALPHA-BHC

HCB

BETA-BHC

GAMMA-BHC

DELTA-BHC

HEPTACHLOR

HEPTA-EPOXIDE

OXYCHLORDANE

GAMMA-CHLORDANE

ALPHA-CHLORDANE

TRANS-NONACHLOR

CIS-NONACHLOR

ALDRIN

DIELDRIN

ENDRIN

MIREX

2,4'DDE (O,P'DDE)

4,4'DDE (P,P'DDE)

2,4'DDD (O,P'DDD)

4,4'DDD (P,P'DDD)

2,4'DDT (O,P'DDT)

4,4'DDT (P,P'DDT)

SIBERIA TISSUES - PCB DATA - 93-D0-01

INVEST#:

ID:

LABSAMNO:

UNIT:

Analyte (Cont)

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)

18 (CL3)

28 (CL3)

44 (CL4)

52 (CL4)

66 (CL4)

101 (CL5)

105 (CL5)

110/77 (CL5/4)

118/108/149 (CL5/5/6)

128 (CL6)

138 (CL6)

126 (CL5)

153 (CL6)

170 (CL7)

180 (CL7)

187/182/159 (CL7/7/6)

195 (CL8)

206 (CL9)

209 (CL10)

OTHER PCB CONGENERS

7 (CL2)

15 (CL2)

24 (CL3)

16/32 (CL3)

29 (CL3)

26 (CL3)

25 (CL3)

50 (CL4)

33 (CL3)

22 (CL3)

45 (CL4)

46 (CL4)

49 (CL4)

47/48 (CL4)

37/42 (CL4)

41/64 (CL4)

40 (CL4)

74 (CL4)

SIBERIA TISSUES - PCB DATA (Cont) - 93-D0-01

INVEST#:

ID:

LABSAMNO:

UNIT:

Analyte (Cont)

PCB # (CHLORINATION)

70 (CL4)

88 (CL5)

60/56 (CL5)

92? (CL5)

84? (CL5)

99 (CL5)

83 (CL5)

97 (CL5)

87 (CL5)

85 (CL5)

136 (CL6)

82 (CL5)

151 (CL6)

107/108/144 (CL5/5/6)

149 (CL6)

188 (CL7)

146 (CL6)

141 (CL6)

137 (CL6)

UNK (CL6)

158 (CL7)

129 (CL6)

178 (CL7)

183 (CL7)

167 (CL6)

185 (CL7)

174 (CL7)

177 (CL7)

156/171/202 (CL6/7/8)

200 (CL8)

172 (CL7)

191 (CL7)

201 (CL8)

196 (CL8)

189 (CL7)

194 (CL8)

205 (CL9)

Surrogate Recoveries

DBOFB%:

PCB#103%:

PCB#198%:

SIBERIA TISSUES - GENERAL INFORMATION - 93-D0-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	GERG STD CHK III	GERG STD CHK
LABSAMNO:	LABORATORY	W9538
SAMPLE TYPE:	RUNNING	REF
COLLECTION DATE:	AVERAGE	
RECEIPT DATE:		
QCBATCH:		M881
EXTRACTION DATE:		
METHOD:		GCMS
ANALYSIS DATE:		09/29/93
METHOD:		GCECD
ANALYSIS DATE:		
MATRIX:		OIL
SUBMAT:		
WETWT:		
DRYWT:		
WTUNITS:		
PCTSOLIDS:		
VOL:		1.0
VOLUNITS:		AMPOULE
Lipid Weight		
% LIPIDS:		
Surrogate Recoveries		
PAH's:		
NAPHD8:		NA
ACEND10:		NA
PHEND10:		NA
CHRYD12:		NA
PERYD12:		NA
PESTICIDES & PCB's:		
DBOFB:		NA
PCB#103:		NA
PCB#198:		NA

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA - 93-D0-01

INVEST#:	LABORATORY	LAB QA SAMPLE	
ID:	RUNNING	GERG STD CHK	
LABSAMNO:	AVERAGE	W9538	
UNIT:		ng/amp	
PNA Analyte	Average Std Dev.	Conc	DB QUAL
NAPHTHALENE	576.2 20.2	545.0	
C1-NAPHTHALENES	2434.8 125.9	2127.3	
C2-NAPHTHALENES	1902.8 160.0	2035.5	
C3-NAPHTHALENES	1440.7 217.6	1617.8	
C4-NAPHTHALENES	789.3 158.7	942.8	
BIPHENYL	193.9 20.4	206.7	
ACENAPHTHYLENE	1.3 0.5	2.9 J	
ACENAPHTHENE	17.4 1.7	16.9 J	
FLUORENE	93.2 7.6	93.6	
C1-FLUORENES	213.3 31.4	221.1	
C2-FLUORENES	343.7 35.0	342.2	
C3-FLUORENES	370.1 61.6	334.5	
PHENANTHRENE	266.0 23.0	229.6	
ANTHRACENE	5.9 2.8	6.1 J	
C1-PHEN_ANTHR	583.2 91.0	535.0	
C2-PHEN_ANTHR	656.2 106.3	606.9	
C3-PHEN_ANTHR	481.9 128.7	484.3	
C4-PHEN_ANTHR	212.4 75.3	256.7	
DIBENZOTHTIO	218.9 22.1	144.4	
C1-DIBEN	414.9 66.3	291.9	
C2-DIBEN	571.6 106.8	388.3	
C3-DIBEN	506.5 90.8	344.3	
FLUORANTHENE	5.0 1.1	3.4 J	
PYRENE	13.1 2.3	11.3 J	
C1-FLUORAN_PYR	94.0 18.2	73.3	
BENaANTHRACENE	5.6 1.0	5.2 J	
CHRYSENE	52.4 5.4	53.7	
C1-CHRYSENES	91.4 63.5	89.4	
C2-CHRYSENES	115.5 77.6	112.2	
C3-CHRYSENES	30.4 22.2	25.9	
C4-CHRYSENES	21.5 18.0	16.9 J	
BENbFLUORAN	3.5 0.4	2.5 J	
BENkFLUORAN	3.5 0.4	2.8 J	
BENePYRENE	11.3 1.1	10.7 J	
BENaPYRENE	2.0 0.7	2.9 J	
PERYLENE	2.0 0.6	2.1 J	
I123cdPYRENE	0.9 0.3	0.5 J	
DBahANTHRA	1.8 0.5	1.5 J	
BghiPERYLENE	4.2 0.9	3.5 J	
TOTAL PAH's	12750.2	12189.0	
(w/o PERYLENE)			

SIBERIA TISSUES - AROMATIC HYDROCARBON DATA (CONT) - 93-D0-01

INVEST#:	LABORATORY	LAB QA SAMPLE
ID:	RUNNING	GERG STD CHK
LABSAMNO:	AVERAGE	W9538
UNIT:	ng/amp	ng/amp
Analyte (Cont)	Average Std Dev.	Conc DB QUAL

2-METHYLNAPH	1347.9	70.7	1171.8
1-METHYLNAPH	1086.9	58.1	955.4
2,6-DIMETHNAPH	775.3	64.6	826.3
1,6,7-TRIMETHNAPH	438.9	30.2	456.0
1-METHYLPHEN	177.6	21.4	153.4

Surrogate Recoveries

NAPHD8:	NA
ACEND10:	NA
PHEND10:	NA
CHRYD12:	NA
PERYD12:	NA

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

PAHs, Aliphatics, PCBs and Pesticides
in Sediments
Analytical Sample Data

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 2	STATION 5	STATION 7	STATION 12	STATION 14
ID:					
LABSAMNO:	C12905	C12906	C12907	C12908	C12909
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	08/04/93	08/05/93	08/08/93	08/13/93	08/13/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M748	M748	M748	M748	M748
EXTRACTION DATE:	11/11/93	11/11/93	11/11/93	11/11/93	11/11/93
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	01/18/94	01/18/94	01/18/94	01/19/94	01/19/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	12/06/93	12/06/93	12/06/93	12/06/93	12/06/93
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	06/08/94	06/08/94	06/08/94	06/08/94	06/08/94
MATRIX:	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
SUBMAT:					
WETWT:	10.15	10.16	10.16	10.21	10.27
DRYWT:	7.34	5.50	4.08	4.05	3.80
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	72.3%	54.1%	40.2%	39.7%	37.0%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	86	87	100	74	83
C20ALKD:	81	97	109	73	79
C24ALKD:	81	101	104	75	82
C30ALKD:	104	125 M	149 M	137 Q	141 M
PAH's:					
NAPHD8:	69	77	82	70	72
ACEND10:	74	79	86	74	74
PHEND10:	75	80	84	77	73
CHRYD12:	17 M	9 M	10 M	58	57
PERYD12:	7 M	7 M	5 M	57	54
PESTICIDES & PCB's:					
DBOFB:	61	83	71	110	80
PCB#103:	60	80	68	105	77
PCB#198:	58	81	67	109	78

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 2	STATION 5	STATION 7	STATION 12	STATION 14
ID:					
LABSAMNO:	C12905	C12906	C12907	C12908	C12909
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	327	280	181	289	181
C11	746	100	51	58	46
C12	977	100	65	90	60
C13	39	31 J	33 J	40 J	36 J
C14	48	71	63	80	64
C15	59	93	98	70	83
C16	55	71	79	80	71
C17	196	245	390	206	203
PRISTANE	69	60	54	53	64
C18	51	134	145	116	109
PHYTANE	75	71	71	45	35 J
C19	94	243	304	241	239
C20	74	261	345	238	234
C21	241	816	1127	947	803
C22	145	669	914	575	608
C23	510	2152	2894	1926	1824
C24	157	1544	1057	669	712
C25	775	3393	3914	2788	2471
C26	187	864	1041	699	661
C27	1768	8608	8760	6643	5264
C28	270	801	1072	658	618
C29	1236	6527	6486	5436	4151
C30	130	626	727	559	568
C31	1501	8681	7690	7152	4594
C32	74	493	572	439	411
C33	569	3022	2815	2374	1435
C34	11 J	108	208	250	391
TOT ALKANES	10384	40066	41159	32720	25934
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	5.8 J	0.5 J	8.7 J	6.6 J	0.0 ND
Surrogate Recoveries					
C12ALKD:	86	87	100	74	83
C20ALKD:	81	97	109	73	79
C24ALKD:	81	101	104	75	82
C30ALKD:	104	125 M	149 M	137 M	141 M

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 2	STATION 5	STATION 7	STATION 12	STATION 14
ID:					
LABSAMNO:	C12905	C12906	C12907	C12908	C12909
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	12.2 J	19.7 J	29.2	36.0	24.4 J
C1-NAPHTHALENES	13.2 J	28.1 J	30.3 J	40.1 J	29.3 J
C2-NAPHTHALENES	10.5 J	23.2 J	24.0 J	31.0 J	23.0 J
C3-NAPHTHALENES	11.4 J	22.4	25.3	32.4	23.4 J
C4-NAPHTHALENES	7.0 J	11.7 J	13.1 J	15.2 J	13.5 J
BIPHENYL	5.6 J	17.0	15.8 J	18.1 J	14.5 J
ACENAPHTHYLENE	1.1 J	0.4 J	3.9 J	3.7 J	2.2 J
ACENAPHTHENE	0.9 J	4.1 J	2.0 J	2.9 J	1.8 J
FLUORENE	3.0 J	9.8	8.5 J	9.7 J	6.2 J
C1-FLUORENES	3.5 J	11.3 J	10.1 J	10.2 J	8.4 J
C2-FLUORENES	3.5 J	8.7 J	9.9 J	11.4 J	9.1 J
C3-FLUORENES	6.1 J	6.4 J	9.3 J	10.0 J	8.9 J
PHENANTHRENE	11.9	33.4	38.3	44.8	32.3
ANTHRACENE	1.5 J	1.6 J	3.5 J	4.7 J	3.2 J
C1-PHEN_ANTHR	9.1 J	26.7	29.1 J	33.4	26.8 J
C2-PHEN_ANTHR	7.2 J	16.9 J	22.7 J	25.2 J	21.2 J
C3-PHEN_ANTHR	6.7 J	13.3 J	21.7 J	20.9 J	16.9 J
C4-PHEN_ANTHR	11.0 J	19.9 J	34.6	28.9 J	20.8 J
DIBENZOTHTIO	1.1 J	3.4 J	2.9 J	3.3 J	2.8 J
C1-DIBEN	1.2 J	2.7 J	3.3 J	3.6 J	3.2 J
C2-DIBEN	1.7 J	2.5 J	3.8 J	4.7 J	3.5 J
C3-DIBEN	1.5 J	1.7 J	3.2 J	3.6 J	3.6 J
FLUORANTHENE	6.8	6.7	18.9	28.5	19.3
PYRENE	6.3	6.8 J	17.3	24.2	17.1
C1-FLUORAN_PYR	4.0 J	9.1 J	10.8 J	16.4 J	11.7 J
BENaANTHRACENE	7.7	5.8	2.9 J	16.7	10.5
CHRYSENE	24.0	73.0	117.0	31.4	25.3
C1-CHRYSENES	22.7	193.0	147.9	20.6 J	17.2 J
C2-CHRYSENES	21.2	65.1	105.2	19.8 J	15.7 J
C3-CHRYSENES	ND	ND	ND	ND	ND
C4-CHRYSENES	ND	ND	ND	ND	ND
BENbFLUORAN	1.7 J	2.6 J	4.1 J	3.2 J	2.5 J
BENkFLUORAN	1.7 J	2.6 J	4.1 J	3.2 J	2.5 J
BENePYRENE	9.1	4.3 J	22.9	12.1	10.4
BENaPYRENE	0.2 J	0.0 J	1.6 J	4.6 J	5.2 J
PERYLENE	31.6 J	19.8 J	184.9	254.1	223.5
I123cdPYRENE	2.4 J	0.8 J	3.0 J	0.2 J	0.1 J
DBaHANTHRA	1.2 J	0.5 J	0.8 J	0.1 J	0.3 J
BghiPERYLENE	0.7 J	1.8 J	9.2	8.9	10.5
TOTAL PAH's	240.3	657.1	810.3	583.6	447.6
(w/o PERYLENE)					

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 2	STATION 5	STATION 7	STATION 12	STATION 14
ID:					
LABSAMNO:	C12905	C12906	C12907	C12908	C12909
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	8.2 J	17.1	18.4	24.5	18.2 J
1-METHYLNAPH	5.0 J	11.0 J	11.9 J	15.6 J	11.1 J
2,6-DIMETHNAPH	5.3 J	12.9 J	12.6 J	15.1 J	11.6 J
1,6,7-TRIMETHNAPH	2.7 J	6.9 J	7.4 J	9.0 J	6.3 J
1-METHYLPHEN	3.0 J	10.4 J	11.0 J	11.6 J	8.4 J
Surrogate Recoveries					
NAPHD8:	69	77	82	70	72
ACEND10:	74	79	86	74	74
PHEND10:	75	80	84	77	73
CHRYD12:	17 M	9 M	10 M	58	57
PERYD12:	7 M	7 M	5 M	57	54

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 2	STATION 5	STATION 7	STATION 12	STATION 14
ID:					
LABSAMNO:	C12905	C12906	C12907	C12908	C12909
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.2 J	0.2 J	0.3 J	0.4 J	0.5 J
TOT CHLORDANES (ALL)	0.0 ND	0.1 J	0.1 J	0.1 J	0.1 J
TOT CHLORDANES (S&T)	0.0 ND	0.1 J	0.1 J	0.1 J	0.1 J
TOTAL DDTs	0.8 J	0.2 J	1.2 J	0.6 J	0.8 J
TOTAL PCBs	0.1 J	0.7 J	0.3 J	0.5 J	0.5 J
ALPHA-BHC	0.1 J	0.1 J	0.1 J	0.2 J	0.2 J
HCB	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.1 J
GAMMA-BHC	0.0 ND	0.0 ND	0.1 J	0.1 J	0.1 J
DELTA-BHC	0.1 J	0.1 J	0.1 J	0.1 J	0.1 J
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND	0.1 J	0.0 ND	0.1 J
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.1 J
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.1 J	0.1 J	0.1 J
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND	0.1 J	0.1 J	0.1 J
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 J	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.1 J	0.0 ND	0.3	0.3	0.3
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 J	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.6	0.0 ND	0.7	0.1 J	0.2 J

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 2	STATION 5	STATION 7	STATION 12	STATION 14
ID:					
LABSAMNO:	C12905	C12906	C12907	C12908	C12909
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.1 J
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.0 ND	0.5	0.1 J	0.1 J	0.1 J
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	0.1 J	0.0 ND	0.1 J	0.1 J	0.1 J
180 (CL7)	0.0 ND	0.0 ND	0.0 J	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 2	STATION 5	STATION 7	STATION 12	STATION 14
ID:					
LABSAMNO:	C12905	C12906	C12907	C12908	C12909
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFB%:	61	83	71	110	80
PCB#103%:	60	80	68	105	77
PCB#198%:	58	81	67	109	78

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 25	STATION 21	STATION 58	STATION 59	STATION 60
ID:					
LABSAMNO:	C12910	C12911	C12912	C12913	C12914
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	08/26/93	08/20/93	09/10/93	09/11/93	09/11/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M748	M748	M748	M748	M748
EXTRACTION DATE:	11/11/93	11/11/93	11/11/93	11/11/93	11/11/93
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	01/19/94	01/19/94	01/19/94	01/19/94	01/19/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	12/06/93	12/06/93	12/06/93	12/06/93	12/06/93
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	06/08/94	06/08/94	06/08/94	06/08/94	06/08/94
MATRIX:	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
SUBMAT:					
WETWT:	10.31	10.10	10.04	10.37	10.14
DRYWT:	8.50	6.29	2.60	1.99	2.98
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCT SOLIDS:	82.4%	62.3%	25.9%	19.2%	29.4%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	79	85	102	79	113
C20ALKD:	84	95	99	81	105
C24ALKD:	86	85	100	84	108
C30ALKD:	109	230 M	159 M	145 M	193 M
PAH's:					
NAPHD8:	70	78	82	74	85
ACEND10:	71	83	85	78	84
PHEND10:	68	79	86	76	84
CHRYD12:	70	79	92	79	90
PERYD12:	20 Q	71	81	81	87
PESTICIDES & PCB's:					
DBOFB:	89	82	80	69	77
PCB#103:	85	76	78	67	75
PCB#198:	84	77	78	64	73

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 25	STATION 21	STATION 58	STATION 59	STATION 60
ID:					
LABSAMNO:	C12910	C12911	C12912	C12913	C12914
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	191	290	573	641	268
C11	138	648	1484	183	108
C12	104	962	2374	227	177
C13	10 J	28 J	69 J	34 J	21 J
C14	24	33	74	76 J	48 J
C15	30	34 J	41 J	180	91
C16	28	26	66	124	110
C17	231	69	103	811	460
PRISTANE	16 J	53 J	144	49 J	20 J
C18	79	37	92	228	157
PHYTANE	33	0 J	13 J	77	29 J
C19	261	172	347	550	531
C20	342	166	358	671	768
C21	1123	476	1084	2144	2244
C22	1164	330	987	2191	2504
C23	2931	981 J	2698	6353	6696
C24	1181	490	1090	2749	3039
C25	3246	1627	3038	7735	7869
C26	1097	537 J	1240	2548	2716
C27	4339	1722 J	4177	13286	10897
C28	675	410 J	734	2163	1873
C29	3126	1739	3266	11633	8983
C30	631	259 J	561	1884	1629
C31	3480	1607	3341	11131	8090
C32	332	265 J	509	659	964
C33	1234	459	979	3398	2600
C34	57	293 J	148	122	17 J
TOT ALKANES	26104	13712	29587	71849	62908
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	11.8	2.6 J	9.1 J	17.7 J	21.4
Surrogate Recoveries					
C12ALKD:	79	85	102	79	113
C20ALKD:	84	95	99	81	105
C24ALKD:	86	85	100	84	108
C30ALKD:	109	230 M	159 M	145 M	193 M

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 25	STATION 21	STATION 58	STATION 59	STATION 60
ID:					
LABSAMNO:	C12910	C12911	C12912	C12913	C12914
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	3.3 J	7.3 J	10.7 J	18.1 J	18.3 J
C1-NAPHTHALENES	2.8 J	7.6 J	9.0 J	17.2 J	18.2 J
C2-NAPHTHALENES	2.0 J	4.5 J	8.6 J	14.2 J	10.3 J
C3-NAPHTHALENES	3.6 J	6.5 J	13.3 J	11.7 J	15.4 J
C4-NAPHTHALENES	1.3 J	3.1 J	6.1 J	10.9 J	ND
BIPHENYL	1.8 J	3.7 J	6.8 J	8.8 J	8.4 J
ACENAPHTHYLENE	0.1 J	0.1 J	0.6 J	1.0 J	1.0 J
ACENAPHTHENE	0.3 J	0.5 J	1.7 J	2.4 J	1.2 J
FLUORENE	0.6 J	1.5 J	4.0 J	4.5 J	4.8 J
C1-FLUORENES	ND	1.6 J	4.0 J	7.7 J	5.2 J
C2-FLUORENES	ND	3.9 J	6.4 J	15.9 J	10.5 J
C3-FLUORENES	ND	5.8 J	6.7 J	15.0 J	15.2 J
PHENANTHRENE	1.6 J	3.7 J	6.6 J	10.5 J	9.3 J
ANTHRACENE	0.1 J	0.5 J	0.7 J	2.1 J	2.1 J
C1-PHEN_ANTHR	1.3 J	3.9 J	7.0 J	12.1 J	10.1 J
C2-PHEN_ANTHR	1.2 J	3.1 J	5.9 J	1.4 J	9.6 J
C3-PHEN_ANTHR	ND	3.0 J	4.1 J	8.9 J	7.8 J
C4-PHEN_ANTHR	ND	2.6 J	ND	14.2 J	5.4 J
DIBENZOTHRIO	0.2 J	0.5 J	1.0 J	1.8 J	1.2 J
C1-DIBEN	ND	0.6 J	0.9 J	2.9 J	1.4 J
C2-DIBEN	ND	1.0 J	1.6 J	4.1 J	2.6 J
C3-DIBEN	ND	1.0 J	ND	5.0 J	1.6 J
FLUORANTHENE	0.3 J	2.5 J	6.3 J	10.7 J	7.3 J
PYRENE	0.4 J	1.8 J	4.5 J	11.0 J	6.8 J
C1-FLUORAN_PYR	ND	1.9 J	3.9 J	11.8 J	7.3 J
BENaANTHRACENE	0.1 J	1.1 J	0.7 J	1.5 J	3.8 J
CHRYSENE	0.4 J	2.3 J	6.5 J	16.7 J	11.4 J
C1-CHRYSENES	ND	2.8 J	7.5 J	12.4 J	9.1 J
C2-CHRYSENES	ND	3.3 J	10.5 J	17.3 J	18.0 J
C3-CHRYSENES	ND	ND	ND	ND	ND
C4-CHRYSENES	ND	ND	ND	ND	ND
BENbFLUORAN	0.1 J	1.7 J	3.7 J	11.6 J	7.4 J
BENkFLUORAN	0.1 J	1.7 J	3.7 J	11.6 J	7.4 J
BENePYRENE	0.1 J	1.2 J	2.6 J	8.4 J	5.4 J
BENaPYRENE	0.0 J	0.8 J	2.1 J	5.2 J	3.0 J
PERYLENE	2.1 J	27.6 J	66.9 J	602.6	469.1
I123cdPYRENE	0.1 J	2.1 J	4.1 J	13.9 J	9.3 J
DBahANTHRA	0.0 J	0.9 J	1.2 J	2.7 J	1.8 J
BghiPERYLENE	0.1 J	2.5 J	6.0 J	14.5	11.6
TOTAL PAH's	22.1 J	92.6 J	169.1 J	339.6 J	269.2 J
(w/o PERYLENE)					

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 25	STATION 21	STATION 58	STATION 59	STATION 60
ID:					
LABSAMNO:	C12910	C12911	C12912	C12913	C12914
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	1.7 J	4.5 J	5.5 J	11.0 J	11.4 J
1-METHYLNAPH	1.1 J	3.1 J	3.5 J	6.1 J	6.7 J
2,6-DIMETHNAPH	1.2 J	2.9 J	4.5 J	8.2 J	5.4 J
1,6,7-TRIMETHNAPH	0.7 J	1.2 J	2.8 J	4.3 J	2.2 J
1-METHYLPHEN	0.3 J	1.2 J	2.2 J	4.8 J	4.2 J
Surrogate Recoveries					
NAPHD8:	70	78	82	74	85
ACEND10:	71	83	85	78	84
PHEND10:	68	79	86	76	84
CHRYD12:	70	79	92	79	90
PERYD12:	20 Q	71	81	81	87

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 25	STATION 21	STATION 58	STATION 59	STATION 60
ID:					
LABSAMNO:	C12910	C12911	C12912	C12913	C12914
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.2 J	0.2 J	0.5 J	0.8 J	0.6 J
TOT CHLORDANES (ALL)	0.1 J	0.1 J	0.1 J	0.2 J	0.1 J
TOT CHLORDANES (S&T)	0.0 ND	0.1 J	0.1 J	0.2 J	0.1 J
TOTAL DDTs	0.2 J	0.1 J	0.3 J	0.8 J	0.4 J
TOTAL PCBs	0.2 J	0.3 J	0.5 J	0.7 J	0.3 J
ALPHA-BHC	0.1 J	0.1 J	0.2 J	0.2 J	0.1 J
HCB	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
BETA-BHC	0.1 J	0.1 J	0.1 J	0.3 J	0.3 J
GAMMA-BHC	0.0 ND	0.0 ND	0.1 J	0.1 J	0.1 J
DELTA-BHC	0.1 J	0.1 ND	0.1 J	0.2 J	0.1 J
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.1 J	0.1 J	0.1 J
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 ND
DIELDRIN	0.0 ND	0.1 J	0.1 J	0.2 J	0.1 J
ENDRIN	0.0 ND	0.0 ND	0.1 J	0.1 J	0.1 J
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.1 J	0.2 J	0.1 J
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND	0.1 J	0.1 J	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.1 J	0.0 ND	0.1 J	0.3 J	0.1 J
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 J
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.1 J	0.1 J	0.1 J

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 25	STATION 21	STATION 58	STATION 59	STATION 60
ID:					
LABSAMNO:	C12910	C12911	C12912	C12913	C12914
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.1 J
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	0.1 J	0.0 ND	0.1 J	0.2 J	0.1 J
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.1 J	0.1 J	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.1 J	0.1 J	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 25	STATION 21	STATION 58	STATION 59	STATION 60
ID:					
LABSAMNO:	C12910	C12911	C12912	C12913	C12914
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.1 J	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFS%:	89	82	80	69	77
PCB#103%:	85	76	78	67	75
PCB#198%:	84	77	78	64	73

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 61	STATION 62	STATION 20	STATION 35	STATION 40
ID:					
LABSAMNO:	C12915	C12916	C12917	C12918	C12919
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	09/11/93	09/12/93	08/19/93	09/03/93	09/04/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M749	M749	M749	M749	M749
EXTRACTION DATE:	11/12/93	11/12/93	11/12/93	11/12/93	11/12/93
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	05/12/94	05/13/94	05/13/94	05/13/94	05/13/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	12/07/93	12/07/93	12/07/93	12/07/93	12/07/93
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	06/07/94	06/07/94	06/08/94	06/08/94	06/08/94
MATRIX:	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
SUBMAT:					
WETWT:	10.08	10.19	10.14	10.30	10.19
DRYWT:	2.61	2.50	4.73	6.38	8.23
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	25.9%	24.5%	46.6%	61.9%	80.8%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	47	46	45	54	66
C20ALKD:	46	44	46	56	68
C24ALKD:	48	49	47	58	70
C30ALKD:	105	96	89	57	106
PAH's:					
NAPHD8:	67	68	59	55	75
ACEND10:	70	72	60	59	80
PHEND10:	72	80	68	67	83
CHRYD12:	77	82	73	70	81
PERYD12:	72	66	57	66	66
PESTICIDES & PCB's:					
DBOFB:	35 Q	60	69	80	152 Q
PCB#103:	49	69	77	85	138 Q
PCB#198:	45	67	77	84	142 Q

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 61	STATION 62	STATION 20	STATION 35	STATION 40
ID:					
LABSAMNO:	C12915	C12916	C12917	C12918	C12919
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	885	983	398	257	229
C11	26 J	0 ND	13 J	8 J	5 J
C12	29 J	19 J	18 J	11 J	5 J
C13	0 ND	0 ND	6 J	5 J	0 ND
C14	30 J	20 J	13 J	8 J	5 J
C15	48 J	37 J	21 J	15 J	8 J
C16	43 J	28 J	22 J	15 J	3 J
C17	170	105	20 J	15 J	3 J
PRISTANE	15 J	29 J	15 J	15 J	7 J
C18	76	89	33	26	10 J
PHYTANE	0 ND	7 J	3 J	0 ND	0 ND
C19	144	168	22	25	19
C20	241	253	37	26	31
C21	662	843	102	64	39
C22	717	823	92	50	43
C23	1974	2261	259	150	41
C24	801	891	112	58	36
C25	2285	2583	326	179	38
C26	790	849	110	65	24 J
C27	3402	3819	443	258	36 J
C28	699	547	54 J	35 J	17 J
C29	3888	3648	468	217	31 J
C30	603	548	64	14 J	6 J
C31	3729	4579	407	231	21 J
C32	349	428	52	29	4 J
C33	1183	1292	121	71	5 J
C34	56	0 ND	0 ND	0 ND	0 ND
TOT ALKANES	22844	24846	3227	1847	667
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	85.9	66.1	23.8	16.8	4.4 J
Surrogate Recoveries					
C12ALKD:	47	46	45	54	66
C20ALKD:	46	44	46	56	68
C24ALKD:	48	49	47	58	70
C30ALKD:	105	96	89	57	106

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 61	STATION 62	STATION 20	STATION 35	STATION 40
ID:					
LABSAMNO:	C12915	C12916	C12917	C12918	C12919
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	14.0 J	11.7 J	9.5 J	11.3 J	4.2 J
C1-NAPHTHALENES	8.8 J	8.8 J	8.1 J	9.6 J	2.2 J
C2-NAPHTHALENES	9.0 J	6.3 J	5.7 J	6.6 J	ND
C3-NAPHTHALENES	9.7 J	7.7 J	5.2 J	6.9 J	ND
C4-NAPHTHALENES	ND	ND	ND	ND	ND
BIPHENYL	5.4 J	5.5 J	4.8 J	4.7 J	1.3 J
ACENAPHTHYLENE	0.6 J	0.6 J	0.3 J	0.3 J	0.1 J
ACENAPHTHENE	1.6 J	2.9 J	0.8 J	0.3 J	0.4 J
FLUORENE	3.1 J	2.2 J	1.6 J	1.3 J	0.3 J
C1-FLUORENES	ND	ND	ND	ND	ND
C2-FLUORENES	ND	ND	ND	ND	ND
C3-FLUORENES	ND	ND	ND	ND	ND
PHENANTHRENE	6.8 J	6.6 J	5.1 J	6.4 J	1.2 J
ANTHRACENE	1.1 J	0.3 J	0.2 J	0.3 J	0.0 J
C1-PHEN_ANTHR	8.5 J	6.6 J	6.6 J	7.0 J	ND
C2-PHEN_ANTHR	8.5 J	7.9 J	4.4 J	6.5 J	ND
C3-PHEN_ANTHR	6.5 J	ND	ND	ND	ND
C4-PHEN_ANTHR	ND	ND	ND	ND	ND
DIBENZOTHRIO	1.2 J	0.9 J	0.6 J	0.9 J	0.2 J
C1-DIBEN	ND	ND	ND	ND	ND
C2-DIBEN	ND	ND	ND	ND	ND
C3-DIBEN	ND	ND	ND	ND	ND
FLUORANTHENE	5.6 J	5.1 J	2.9 J	2.7 J	0.2 J
PYRENE	5.1 J	4.6 J	2.0 J	2.3 J	0.4 J
C1-FLUORAN_PYR	4.9 J	6.9 J	2.4 J	4.4 J	ND
BENaANTHRACENE	1.3 J	1.3 J	0.9 J	0.6 J	0.1 J
CHRYSENE	5.7 J	4.6 J	1.7 J	2.4 J	0.2 J
C1-CHRYSENES	3.7 J	3.9 J	1.7 J	2.3 J	ND
C2-CHRYSENES	7.0 J	6.3 J	1.9 J	1.9 J	ND
C3-CHRYSENES	ND	ND	ND	ND	ND
C4-CHRYSENES	ND	ND	ND	ND	ND
BENbFLUORAN	7.0 J	5.7 J	1.9 J	1.8 J	0.2 J
BENkFLUORAN	7.0 J	5.7 J	1.9 J	1.8 J	0.2 J
BENePYRENE	4.0 J	3.9 J	1.5 J	1.4 J	0.2 J
BENaPYRENE	3.1 J	2.6 J	0.9 J	0.7 J	0.0 J
PERYLENE	154.5	132.5	16.8 J	17.1 J	0.6 J
I123cdPYRENE	5.8 J	4.4 J	1.8 J	1.6 J	0.1 J
DBaHANTHRA	1.2 J	1.1 J	0.3 J	0.3 J	0.1 J
BghiPERYLENE	6.7 J	5.3 J	1.9 J	2.0 J	0.1 J
TOTAL PAH's	152.8 J	129.5 J	76.7 J	88.0 J	11.7 J
(w/o PERYLENE)					

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 61	STATION 62	STATION 20	STATION 35	STATION 40
ID:					
LABSAMNO:	C12915	C12916	C12917	C12918	C12919
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	5.6 J	5.4 J	4.6 J	5.7 J	1.3 J
1-METHYLNAPH	3.2 J	3.4 J	3.5 J	3.9 J	0.9 J
2,6-DIMETHNAPH	5.3 J	4.3 J	3.1 J	3.7 J	0.4 J
1,6,7-TRIMETHNAPH	2.1 J	1.0 J	1.1 J	0.9 J	0.1 J
1-METHYLPHEN	2.6 J	2.0 J	1.9 J	2.1 J	0.1 J
Surrogate Recoveries					
NAPHD8:	67	68	59	55	75
ACEND10:	70	72	60	59	80
PHEND10:	72	80	68	67	83
CHRYD12:	77	82	73	70	81
PERYD12:	72	66	57	66	66

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 61	STATION 62	STATION 20	STATION 35	STATION 40
ID:					
LABSAMNO:	C12915	C12916	C12917	C12918	C12919
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL DDTs	0.5 J	0.2 J	0.0 ND	0.0 ND	0.0 ND
TOTAL PCBs	21.3 J	3.0 J	2.4 J	1.5 J	0.8 J
ALPHA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HCB	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
GAMMA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.5	0.2 J	0.0 ND	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 61	STATION 62	STATION 20	STATION 35	STATION 40
ID:					
LABSAMNO:	C12915	C12916	C12917	C12918	C12919
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.9	0.7 J	0.5	0.4	0.1 J
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	20.4	2.3	0.9	1.1	0.7
180 (CL7)	0.0 ND	0.0 ND	0.0 J	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.3 J	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.2 J	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 61	STATION 62	STATION 20	STATION 35	STATION 40
ID:					
LABSAMNO:	C12915	C12916	C12917	C12918	C12919
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.3 J	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.2 J	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFB%:	35 Q	60	69	80	152 Q
PCB#103%:	49	69	77	85	138 Q
PCB#198%:	45	67	77	84	142 Q

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 45	STATION 66	STATION 71	STATION 75	STATION 77
ID:					
LABSAMNO:	C12920	C12921	C12922	C12923	C12924
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	09/11/93	09/13/93	09/14/93	09/14/93	09/14/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M749	M749	M749	M749	M749
EXTRACTION DATE:	11/12/93	11/12/93	11/12/93	11/12/93	11/12/93
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	05/13/94	05/13/94	05/13/94	05/13/94	05/13/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	12/07/93	12/08/93	12/08/93	12/08/93	12/08/93
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	06/08/94	06/08/94	06/08/94	06/08/94	06/08/94
MATRIX:	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
SUBMAT:					
WETWT:	10.03	10.25	10.00	10.13	10.04
DRYWT:	4.63	5.18	4.23	7.98	5.95
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	46.2%	50.5%	42.3%	78.8%	59.3%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	58	51	60	50	46
C20ALKD:	59	54	61	51	51
C24ALKD:	59	54	61	51	49
C30ALKD:	119	103	103	87	97
PAH's:					
NAPHD8:	75	72	77	75	62
ACEND10:	73	73	87	80	69
PHEND10:	78	80	83	77	76
CHRYD12:	66	77	78	73	85
PERYD12:	50	56	53	42	60
PESTICIDES & PCB's:					
DBOFB:	154 Q	72	82	59	66
PCB#103:	143 Q	80	87	68	74
PCB#198:	151 Q	76	86	64	96

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 45	STATION 66	STATION 71	STATION 75	STATION 77
ID:					
LABSAMNO:	C12920	C12921	C12922	C12923	C12924
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	419	318	537	115	157
C11	9 J	7 J	12 J	5 J	7 J
C12	9 J	9 J	13 J	6 J	11 J
C13	0 ND	0 ND	7 J	0 ND	5 J
C14	0 ND	8 J	13 J	5 J	9 J
C15	18 J	11 J	20 J	5 J	10 J
C16	4 J	5 J	12 J	2 J	11 J
C17	10 J	9 J	14 J	3 J	14 J
PRISTANE	21 J	4 J	6 J	3 J	8 J
C18	9 J	12 J	15 J	4 J	19 J
PHYTANE	20 J	0 ND	0 ND	0 ND	0 ND
C19	574	23	21	4 J	33
C20	23	25	22	8 J	37
C21	63	77	49	19	118
C22	74	77	50 J	22 J	155
C23	178	184	105	51	307
C24	92	93	55	26	1080
C25	237	240	134	70	1026
C26	97	90	52 J	27 J	187
C27	333	352	180	94	647
C28	78	68	46 J	19 J	107
C29	353	356	193	97	743
C30	52	63	29 J	17 J	78
C31	305	356	210	127	634
C32	29	26	19 J	12 J	63
C33	93	120	65	42	195
C34	0 ND	0 ND	2 J	3 J	13 J
TOT ALKANES	3099	2532	1881	786	5675
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	8.3 J	3.9 J	0.1 J	4.4 J	24.0
Surrogate Recoveries					
C12ALKD:	58	51	60	50	46
C20ALKD:	59	54	61	51	51
C24ALKD:	59	54	61	51	49
C30ALKD:	119	103	103	87	97

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 45	STATION 66	STATION 71	STATION 75	STATION 77
ID:					
LABSAMNO:	C12920	C12921	C12922	C12923	C12924
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	10.4 J	6.4 J	8.1 J	6.1 J	7.4 J
C1-NAPHTHALENES	9.0 J	4.9 J	9.3 J	3.6 J	4.7 J
C2-NAPHTHALENES	7.0 J	4.5 J	8.1 J	1.9 J	4.4 J
C3-NAPHTHALENES	6.5 J	4.4 J	7.5 J	2.3 J	5.1 J
C4-NAPHTHALENES	ND	ND	ND	ND	ND
BIPHENYL	6.5 J	3.5 J	6.2 J	1.8 J	3.2 J
ACENAPHTHYLENE	0.1 J	0.2 J	0.3 J	0.0 J	0.1 J
ACENAPHTHENE	0.5 J	0.8 J	1.0 J	0.2 J	0.7 J
FLUORENE	1.9 J	1.5 J	2.8 J	0.4 J	1.3 J
C1-FLUORENES	ND	ND	ND	ND	ND
C2-FLUORENES	ND	ND	ND	ND	ND
C3-FLUORENES	ND	ND	ND	ND	ND
PHENANTHRENE	6.7 J	4.7 J	11.2 J	1.9 J	5.2 J
ANTHRACENE	0.3 J	0.2 J	0.3 J	0.1 J	0.5 J
C1-PHEN_ANTHR	6.9 J	4.8 J	10.5 J	1.7 J	5.8 J
C2-PHEN_ANTHR	5.3 J	3.0 J	6.9 J	1.3 J	4.5 J
C3-PHEN_ANTHR	ND	ND	ND	ND	ND
C4-PHEN_ANTHR	ND	ND	ND	ND	ND
DIBENZOTHRIO	0.9 J	0.4 J	0.9 J	0.2 J	0.5 J
C1-DIBEN	ND	ND	ND	ND	1.1 J
C2-DIBEN	ND	ND	ND	ND	1.4 J
C3-DIBEN	ND	ND	ND	ND	ND
FLUORANTHENE	2.5 J	1.7 J	3.6 J	0.7 J	3.4 J
PYRENE	2.3 J	2.5 J	2.7 J	0.6 J	2.1 J
C1-FLUORAN_PYR	2.8 J	2.8 J	4.4 J	ND	2.3 J
BENaANTHRACENE	1.0 J	0.5 J	0.9 J	0.2 J	0.6 J
CHRYSENE	2.6 J	2.2 J	4.7 J	0.6 J	2.0 J
C1-CHRYSENES	ND	1.9 J	4.2 J	ND	1.9 J
C2-CHRYSENES	ND	1.4 J	5.0 J	ND	2.4 J
C3-CHRYSENES	ND	ND	ND	ND	ND
C4-CHRYSENES	ND	ND	ND	ND	ND
BENbFLUORAN	0.6 J	0.7 J	0.8 J	0.3 J	0.7 J
BENkFLUORAN	0.6 J	0.7 J	0.8 J	0.3 J	0.7 J
BENePYRENE	1.6 J	1.3 J	2.7 J	0.5 J	1.3 J
BENaPYRENE	0.8 J	0.6 J	1.0 J	0.2 J	0.9 J
PERYLENE	15.8 J	16.9 J	28.5 J	4.0 J	25.1 J
I123cdPYRENE	0.1 J	0.1 J	0.0 J	0.0 J	0.0 ND
DBahANTHRA	0.1 J	0.1 J	0.3 J	0.1 J	0.1 J
BghiPERYLENE	1.2 J	1.4 J	2.3 J	0.5 J	1.8 J
TOTAL PAH's	78.2 J	57.0 J	106.7 J	25.6 J	65.9 J
(w/o PERYLENE)					

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 45	STATION 66	STATION 71	STATION 75	STATION 77
ID:					
LABSAMNO:	C12920	C12921	C12922	C12923	C12924
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	5.2 J	2.8 J	5.6 J	2.2 J	2.8 J
1-METHYLNAPH	3.8 J	2.0 J	3.7 J	1.3 J	1.8 J
2,6-DIMETHNAPH	2.9 J	1.8 J	4.1 J	0.4 J	2.2 J
1,6,7-TRIMETHNAPH	1.4 J	0.4 J	0.5 J	0.2 J	0.6 J
1-METHYLPHEN	1.2 J	1.3 J	2.1 J	0.4 J	1.3 J
Surrogate Recoveries					
NAPHD8:	75	72	77	75	62
ACEND10:	73	73	87	80	69
PHEND10:	78	80	83	77	76
CHRYD12:	66	77	78	73	85
PERYD12:	50	56	53	42	60

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 45	STATION 66	STATION 71	STATION 75	STATION 77
ID:					
LABSAMNO:	C12920	C12921	C12922	C12923	C12924
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL DDTs	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL PCBs	0.3 J	0.2 J	0.4 J	0.1 J	234.5 M
ALPHA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HCB	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 45	STATION 66	STATION 71	STATION 75	STATION 77
ID:					
LABSAMNO:	C12920	C12921	C12922	C12923	C12924
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.1 J	0.1 J	0.1 J	0.0 ND	1.2
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	0.2 J	0.1 J	0.1 J	0.1 J	228.1 M
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.1 J	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.2 J
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 45	STATION 66	STATION 71	STATION 75	STATION 77
ID:					
LABSAMNO:	C12920	C12921	C12922	C12923	C12924
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB #(CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.1 J	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	3.5
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	1.5
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DEOPB%:	154 Q	72	82	59	66
PCB#103%:	143 Q	80	87	68	74
PCB#198%:	151 Q	76	86	64	96

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 9	STATION 16	STATION 22	STATION 27	STATION 29
ID:					
LABSAMNO:	C13766	C13767	C13768	C13769	C13770
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	08/10/93	08/15/93	08/22/93	09/01/93	09/01/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M2075	M2065	M2065	M2065	M2065
EXTRACTION DATE:	05/26/94	05/16/94	05/16/94	05/16/94	05/16/94
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	06/09/94	06/15/94	06/15/94	06/15/94	06/15/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	06/02/94	06/01/94	06/01/94	06/01/94	06/01/94
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	07/09/94	07/08/94	07/08/94	07/08/94	07/08/94
MATRIX:	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS
SUBMAT:					
WETWT:	18.09	20.36	20.43	20.11	20.66
DRYWT:	7.71	5.77	6.13	10.80	16.63
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	42.6%	28.3%	30.0%	53.7%	80.5%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	70	83	88	86	96
C20ALKD:	69	79	81	82	87
C24ALKD:	70	78	85	86	93
C30ALKD:	77	80	86	85	93
PAH's:					
NAPHD8:	76	80	60	72	71
ACEND10:	78	84	65	75	70
PHEND10:	85	80	71	71	77
CHRYD12:	82	77	73	79	79
PERYD12:	70	65	62	61	63
PESTICIDES & PCB's:					
DBOFB:	71	73	67	69	98
PCB#103:	77	77	72	73	96
PCB#198:	76	73	69	71	95

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 9	STATION 16	STATION 22	STATION 27	STATION 29
ID:					
LABSAMNO:	C13766	C13767	C13768	C13769	C13770
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	9 J	27 J	18 J	17	9 J
C11	3 J	5 J	5 J	0 ND	0 ND
C12	4 J	7 J	7 J	4 J	2 J
C13	2 J	0 ND	0 ND	0 ND	0 ND
C14	3 J	15 J	0 ND	8 J	0 ND
C15	14 J	15 J	17 J	12	5 J
C16	6 J	2 J	5 J	3 J	0 ND
C17	38	7 J	11 J	6 J	0 ND
PRISTANE	9 J	12 J	21 J	4 J	0 ND
C18	13 J	6 J	9 J	4 J	0 ND
PHYTANE	8 J	1 J	8 J	1 J	0 ND
C19	37	20	23	13	0 ND
C20	38	20	24	14	0 ND
C21	153	66	87	52	8
C22	121	57	69	46	9 J
C23	417	159	209	132	23
C24	139	57	72	43	12
C25	589	174	268	150	27
C26	146	54	75	47	10 J
C27	1320	285	480	243	44
C28	124	34 J	50	33	6 J
C29	860	184	292	152	29
C30	70	16 J	25 J	16	0 ND
C31	788	140	228	125	25
C32	34	7 J	12 J	8	0 ND
C33	265	42	64	39	2 J
C34	13 J	0 ND	0 ND	2 J	0 ND
TOT ALKANES	5224	1411	2078	1172	211
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	5.7 J	1.6 J	3.5 J	0.6 J	0.4 J
Surrogate Recoveries					
C12ALKD:	70	83	88	86	96
C20ALKD:	69	79	81	82	87
C24ALKD:	70	78	85	86	93
C30ALKD:	77	80	86	85	93

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 9	STATION 16	STATION 22	STATION 27	STATION 29
ID:					
LABSAMNO:	C13766	C13767	C13768	C13769	C13770
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	11.8 J	7.1 J	8.8 J	3.7 J	1.1 J
C1-NAPHTHALENES	13.9 J	10.3 J	12.3 J	5.3 J	1.7 J
C2-NAPHTHALENES	12.7 J	11.7 J	4.9 J	5.2 J	1.4 J
C3-NAPHTHALENES	14.6	8.8 J	15.5 J	7.8 J	3.2 J
C4-NAPHTHALENES	7.9 J	ND	ND	ND	ND
BIPHENYL	5.3 J	4.3 J	5.3 J	2.7 J	0.7 J
ACENAPHTHYLENE	1.4 J	0.4 J	0.6 J	0.5 J	0.1 J
ACENAPHTHENE	0.7 J	0.4 J	1.7 J	0.2 J	0.1 J
FLUORENE	2.6 J	2.4 J	2.2 J	0.9 J	0.1 J
C1-FLUORENES	5.1 J	ND	ND	ND	ND
C2-FLUORENES	7.7 J	ND	ND	ND	ND
C3-FLUORENES	7.8 J	ND	ND	ND	ND
PHENANTHRENE	10.9	6.6 J	8.6 J	3.8 J	0.9 J
ANTHRACENE	0.8 J	0.7 J	1.1 J	0.3 J	0.0 J
C1-PHEN_ANTHR	9.4 J	7.0 J	7.6 J	4.1 J	1.5 J
C2-PHEN_ANTHR	6.2 J	7.1 J	6.5 J	4.1 J	1.1 J
C3-PHEN_ANTHR	6.6 J	5.4 J	4.5 J	2.4 J	ND
C4-PHEN_ANTHR	9.7 J	ND	ND	ND	ND
DIBENZOTHTIO	1.5 J	1.1 J	1.8 J	0.6 J	0.2 J
C1-DIBEN	2.1 J	ND	3.0 J	ND	ND
C2-DIBEN	2.7 J	ND	2.2 J	ND	ND
C3-DIBEN	3.2 J	ND	ND	ND	ND
FLUORANTHENE	6.7	4.3 J	5.0	2.0 J	0.4 J
PYRENE	5.9 J	3.5 J	4.7 J	1.7 J	0.4 J
C1-FLUORAN_PYR	5.7 J	5.0 J	7.1 J	3.2 J	ND
BENaANTHRACENE	2.8 J	1.6 J	2.1 J	0.4 J	0.1 J
CHRYSENE	4.7 J	2.8 J	2.4 J	1.0 J	0.2 J
C1-CHRYSENES	2.7 J	2.7 J	3.0 J	1.6 J	ND
C2-CHRYSENES	5.7 J	3.0 J	3.5 J	1.6 J	ND
C3-CHRYSENES	0.7 J	ND	ND	ND	ND
C4-CHRYSENES	1.2 J	ND	ND	ND	ND
BENbFLUORAN	3.3 J	2.4 J	2.4 J	1.1 J	0.2 J
BENkFLUORAN	7.2 J	2.4 J	2.4 J	1.1 J	0.2 J
BENePYRENE	3.1 J	2.2 J	2.1 J	0.8 J	0.2 J
BENaPYRENE	1.7 J	1.3 J	1.4 J	0.4 J	0.1 J
PERYLENE	104.5	21.7 J	31.6 J	13.3 J	2.5 J
I123cdPYRENE	1.9 J	1.4 J	1.3 J	0.7 J	0.1 J
DBaHANTHRA	0.4 J	0.6 J	0.2 J	0.1 J	0.0 J
BghiPERYLENE	2.6 J	2.1 J	1.8 J	0.8 J	0.2 J
TOTAL PAH's (w/o PERYLENE)	200.8	108.6 J	125.9 J	57.9 J	14.1 J

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 9	STATION 16	STATION 22	STATION 27	STATION 29
ID:					
LABSAMNO:	C13766	C13767	C13768	C13769	C13770
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	8.6 J	6.4 J	7.9 J	2.9 J	1.0 J
1-METHYLNAPH	5.3 J	4.0 J	4.5 J	2.3 J	0.7 J
2,6-DIMETHNAPH	4.3 J	3.0 J	4.5 J	2.2 J	0.8 J
1,6,7-TRIMETHNAPH	3.1 J	2.0 J	2.8 J	0.4 J	0.4 J
1-METHYLPHEN	2.4 J	1.2 J	1.8 J	0.9 J	0.3 J
Surrogate Recoveries					
NAPHD8:	76	80	60	72	71
ACEND10:	78	84	65	75	70
PHEND10:	85	80	71	71	77
CHRYD12:	82	77	73	79	79
PERYD12:	70	65	62	61	63

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 9	STATION 16	STATION 22	STATION 27	STATION 29
ID:					
LABSAMNO:	C13766	C13767	C13768	C13769	C13770
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.2 J	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL DDTs	0.7 J	0.0 ND	0.4 J	0.2 J	0.1 J
TOTAL PCBs	0.6 J	1.4 J	1.8 J	0.5 J	0.2 J
ALPHA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HCB	0.1 J	0.1 J	0.0 ND	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-BHC	0.2	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.2	0.0 ND	0.2 J	0.1 J	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.5	0.0 ND	0.3	0.1	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 9	STATION 16	STATION 22	STATION 27	STATION 29
ID:					
LABSAMNO:	C13766	C13767	C13768	C13769	C13770
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.1 J	0.1 J	0.2 J	0.1 J	0.0 ND
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	0.5	0.8	1.6	0.3	0.2
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.5	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 9	STATION 16	STATION 22	STATION 27	STATION 29
ID:					
LABSAMNO:	C13766	C13767	C13768	C13769	C13770
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFB%:	71	73	67	69	98
PCB#103%:	77	77	72	73	96
PCB#198%:	76	73	69	71	95

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 32	STATION 36	STATION 38	STATION 41	STATION 42
ID:					
LABSAMNO:	C13771	C13772	C13773	C13774	C13775
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	09/01/93	09/03/93	09/04/93	09/04/93	09/06/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M2065	M2065	M2065	M2065	M2065
EXTRACTION DATE:	05/16/94	05/16/94	05/16/94	05/16/94	05/16/94
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	06/15/94	06/15/94	06/15/94	06/15/94	06/15/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	06/01/94	06/01/94	06/01/94	06/01/94	06/01/94
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	07/09/94	07/09/94	07/09/94	07/09/94	07/09/94
MATRIX:	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS
SUBMAT:					
WETWT:	20.24	20.49	20.74	20.38	20.37
DRYWT:	17.33	9.67	6.55	14.39	9.61
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	85.6%	47.2%	31.6%	70.6%	47.2%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	95	94	101	92	94
C20ALKD:	86	88	92	82	86
C24ALKD:	88	90	94	90	91
C30ALKD:	91	91	96	90	90
PAH's:					
NAPHD8:	81	70	69	66	72
ACEND10:	83	74	72	70	73
PHEND10:	86	82	74	74	80
CHRYD12:	80	83	81	80	75
PERYD12:	63	62	64	69	59
PESTICIDES & PCB's:					
DBOFB:	81	77	77	76	79
PCB#103:	83	81	82	81	80
PCB#198:	82	80	84	85	78

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 32	STATION 36	STATION 38	STATION 41	STATION 42
ID:					
LABSAMNO:	C13771	C13772	C13773	C13774	C13775
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	7 J	13 J	10 J	8 J	14 J
C11	0 ND	0 ND	0 ND	0 ND	2 J
C12	1 J	3 J	5 J	2 J	4 J
C13	0 ND	0 ND	0 ND	0 ND	0 ND
C14	0 ND	0 ND	0 ND	0 ND	0 ND
C15	5 J	7 J	10 J	4 J	9 J
C16	0 ND	0 ND	0 ND	0 ND	0 ND
C17	0 ND	0 ND	0 ND	0 ND	0 ND
PRISTANE	0 ND	4 J	0 ND	0 ND	0 ND
C18	0 ND	0 ND	0 ND	0 ND	0 ND
PHYTANE	0 ND	0 ND	0 ND	0 ND	0 ND
C19	0 ND	0 ND	0 ND	3 J	0 ND
C20	0 ND	0 ND	0 ND	0 ND	0 ND
C21	0 ND	19	17 J	5 J	13
C22	0 ND	19 J	17 J	13 J	19 J
C23	0 ND	49	44	15 J	37
C24	0 ND	21	21 J	17	29
C25	0 ND	56	59	20	46
C26	0 ND	24 J	22 J	8 J	19 J
C27	4 J	82	82	27 J	60
C28	0 ND	13 J	14 J	5 J	11 J
C29	3 J	54	53	19 J	41
C30	0 ND	3 J	0 ND	0 ND	0 ND
C31	0 ND	40	37	7 J	28
C32	0 ND	0 ND	0 ND	0 ND	0 ND
C33	0 ND	11 J	11 J	0 ND	7 J
C34	0 ND	0 ND	0 ND	0 ND	0 ND
TOT ALKANES	20	417	401	153	338
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	0.2 J	0.7 J	0.3 J	0.0 ND	0.7 J
Surrogate Recoveries					
C12ALKD:	95	94	101	92	94
C20ALKD:	86	88	92	82	86
C24ALKD:	88	90	94	90	91
C30ALKD:	91	91	96	90	90

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 32			STATION 36			STATION 38			STATION 41			STATION 42		
ID:															
LABSAMNO:	C13771			C13772			C13773			C13774			C13775		
UNIT:	ng/g			ng/g			ng/g			ng/g			ng/g		
PNA Analyte	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL
NAPHTHALENE	0.7	J		2.5	J		3.2	J		1.0	J		1.7	J	
C1-NAPHTHALENES	0.8	J		3.6	J		5.0	J		1.6	J		2.7	J	
C2-NAPHTHALENES	ND			4.4	J		4.3	J		ND			3.7	J	
C3-NAPHTHALENES	ND			4.5	J		ND			ND			ND		
C4-NAPHTHALENES	ND			ND			ND			ND			ND		
BIPHENYL	0.5	J		1.7	J		1.8	J		0.6	J		1.3	J	
ACENAPHTHYLENE	0.1	J		0.2	J		0.2	J		0.1	J		0.1	J	
ACENAPHTHENE	0.2	J		0.4	J		0.4	J		0.2	J		0.3	J	
FLUORENE	0.1	J		0.8	J		0.9	J		0.2	J		0.2	J	
C1-FLUORENES	ND			ND			ND			ND			ND		
C2-FLUORENES	ND			ND			ND			ND			ND		
C3-FLUORENES	ND			ND			ND			ND			ND		
PHENANTHRENE	0.3	J		33.5			2.2	J		0.7	J		1.3	J	
ANTHRACENE	0.1	J		0.3	J		0.2	J		0.1	J		0.0	J	
C1-PHEN_ANTHR	ND			2.1	J		2.6	J		ND			ND		
C2-PHEN_ANTHR	ND			2.3	J		2.7	J		ND			ND		
C3-PHEN_ANTHR	ND			ND			ND			ND			ND		
C4-PHEN_ANTHR	ND			ND			ND			ND			ND		
DIBENZOTHRIO	0.1	J		0.4	J		0.4	J		0.3	J		0.3	J	
C1-DIBEN	ND			ND			ND			ND			ND		
C2-DIBEN	ND			ND			ND			ND			ND		
C3-DIBEN	ND			ND			ND			ND			ND		
FLUORANTHENE	0.1	J		4.0			1.2	J		0.4	J		0.8	J	
PYRENE	0.2	J		1.0	J		0.9	J		0.3	J		0.5	J	
C1-FLUORAN_PYR	ND			ND			ND			ND			ND		
BENaANTHRACENE	0.1	J		3.0			0.3	J		0.2	J		0.2	J	
CHRYSENE	0.0	J		5.8	J		0.6	J		0.2	J		0.5	J	
C1-CHRYSENES	ND			ND			1.4	J		ND			ND		
C2-CHRYSENES	ND			ND			2.0	J		ND			ND		
C3-CHRYSENES	ND			ND			ND			ND			ND		
C4-CHRYSENES	ND			ND			ND			ND			ND		
BENbFLUORAN	0.1	J		0.7	J		0.6	J		0.2	J		0.4	J	
BENkFLUORAN	0.1	J		0.7	J		0.6	J		0.2	J		0.4	J	
BENePYRENE	0.1	J		0.7	J		0.5	J		0.2	J		0.4	J	
BENaPYRENE	0.2	J		0.1	J		0.3	J		0.0	J		0.2	J	
PERYLENE	0.3	J		5.5	J		5.5	J		1.3	J		3.1	J	
I123cdPYRENE	0.1	J		0.4	J		0.3	J		0.1	J		0.3	J	
DBahANTHRA	0.0	J		0.1	J		0.2	J		0.1	J		0.0	J	
BghiPERYLENE	0.0	J		0.4	J		0.4	J		0.2	J		0.3	J	
TOTAL PAH's	3.7	J		73.2			33.1	J		6.7	J		15.6	J	
(w/o PERYLENE)															

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 32	STATION 36	STATION 38	STATION 41	STATION 42
ID:					
LABSAMNO:	C13771	C13772	C13773	C13774	C13775
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	0.5 J	2.2 J	2.8 J	1.0 J	1.5 J
1-METHYLNAPH	0.2 J	1.4 J	2.1 J	0.6 J	1.2 J
2,6-DIMETHNAPH	0.3 J	1.2 J	1.3 J	0.8 J	1.3 J
1,6,7-TRIMETHNAPH	0.1 J	0.7 J	0.3 J	0.4 J	0.8 J
1-METHYLPHEN	0.1 J	0.4 J	0.4 J	0.1 J	0.3 J
Surrogate Recoveries					
NAPHD8:	81	70	69	66	72
ACEND10:	83	74	72	70	73
PHEND10:	86	82	74	74	80
CHRYD12:	80	83	81	80	75
PERYD12:	63	62	64	69	59

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 32	STATION 36	STATION 38	STATION 41	STATION 42
ID:					
LABSAMNO:	C13771	C13772	C13773	C13774	C13775
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL DDTs	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
TOTAL PCBs	0.4 J	3.1 J	1.3 J	0.8 J	1.0 J
ALPHA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HCB	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-BHC	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 32	STATION 36	STATION 38	STATION 41	STATION 42
ID:					
LABSAMNO:	C13771	C13772	C13773	C13774	C13775
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.0 ND	0.2 J	0.2 J	0.1 J	0.1 J
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	0.4	1.1	1.1	0.7	0.9
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	1.4	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 32	STATION 36	STATION 38	STATION 41	STATION 42
ID:					
LABSAMNO:	C13771	C13772	C13773	C13774	C13775
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.4	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFB%:	81	77	77	76	79
PCB#103%:	83	81	82	81	80
PCB#198%:	82	80	84	85	78

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 47	STATION 48	STATION 49	STATION 51	STATION 53
ID:					
LABSAMNO:	C13776	C13777	C13778	C13779	C13780
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	09/06/93	09/06/93	09/07/93	09/07/93	09/07/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M2075	M2075	M2075	M2075	M2075
EXTRACTION DATE:	05/26/94	05/26/94	05/26/94	05/26/94	05/26/94
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	06/09/94	06/09/94	06/10/94	06/10/94	06/10/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	06/02/94	06/02/94	06/02/94	06/02/94	06/02/94
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	07/09/94	07/09/94	07/09/94	07/10/94	07/10/94
MATRIX:	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS
SUBMAT:					
WETWT:	20.10	20.14	20.16	20.10	20.05
DRYWT:	10.25	12.94	13.49	8.75	15.14
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	51.0%	64.3%	66.9%	43.5%	75.5%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	76	76	67	82	80
C20ALKD:	68	66	61	74	67
C24ALKD:	70	74	66	74	76
C30ALKD:	69	73	66	75	71
PAH's:					
NAPHD8:	67	67	70	70	75
ACEND10:	64	69	72	73	77
PHEND10:	66	74	77	70	78
CHRYD12:	68	81	81	72	77
PERYD12:	60	62	62	54	70
PESTICIDES & PCB's:					
DBOFB:	70	108	81	82	93
PCB#103:	74	110	84	88	95
PCB#198:	80	120	87	91	100

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 47	STATION 48	STATION 49	STATION 51	STATION 53
ID:					
LABSAMNO:	C13776	C13777	C13778	C13779	C13780
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	9 J	9 J	0 ND	11 J	106
C11	0 ND	0 ND	0 ND	0 ND	0 ND
C12	0 ND	0 ND	0 ND	3 J	3 J
C13	0 ND	0 ND	0 ND	0 ND	10 J
C14	0 ND	0 ND	0 ND	0 ND	0 ND
C15	0 ND	28	0 ND	15 J	344
C16	0 ND	0 ND	0 ND	0 ND	0 ND
C17	2 J	0 ND	0 ND	0 ND	0 ND
PRISTANE	20	0 ND	0 ND	4 J	0 ND
C18	2 J	0 ND	0 ND	0 ND	5 J
PHYTANE	0 ND	0 ND	0 ND	0 ND	0 ND
C19	4 J	3 J	0 ND	6	4
C20	6 J	5	0 ND	6 J	3 J
C21	18	20	14	18	16
C22	18 J	24	19	20 J	21
C23	53	62	53	45	54
C24	25	33	28	25	32
C25	66	79	68	57	65
C26	29	31	26	21 J	25
C27	89	106	96	81	93
C28	17 J	19 J	16 J	13 J	16 J
C29	61	81	69	54	66
C30	7 J	9 J	6 J	6 J	7 J
C31	42	56	54	36	45
C32	0 ND	3 J	0 ND	0 ND	0 ND
C33	12 J	16	15	8 J	13
C34	0 ND	0 ND	0 ND	0 ND	0 ND
TOT ALKANES	479	581	465	427	928
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	0.0 ND	0.4 J	0.1 J	0.4 J	0.0 ND
Surrogate Recoveries					
C12ALKD:	76	76	67	82	80
C20ALKD:	68	66	61	74	67
C24ALKD:	70	74	66	74	76
C30ALKD:	69	73	66	75	71

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 47			STATION 48			STATION 49			STATION 51			STATION 53		
ID:															
LABSAMNO:	C13776			C13777			C13778			C13779			C13780		
UNIT:	ng/g			ng/g			ng/g			ng/g			ng/g		
PNA Analyte	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL	Conc	DB	QUAL
NAPHTHALENE	2.1	J		1.7	J		2.1	J		2.5	J		1.2	J	
C1-NAPHTHALENES	2.7	J		2.5	J		2.9	J		3.2	J		1.6	J	
C2-NAPHTHALENES	3.4	J		2.2	J		2.3	J		4.1	J		2.6	J	
C3-NAPHTHALENES	3.5	J		4.7	J		4.4	J		5.4	J		4.5	J	
C4-NAPHTHALENES	ND			ND			ND			ND			ND		
BIPHENYL	1.2	J		1.1	J		1.0	J		1.6	J		0.6	J	
ACENAPHTHYLENE	0.4	J		0.1	J		0.2	J		0.2	J		0.2	J	
ACENAPHTHENE	0.3	J		0.3	J		0.4	J		0.5	J		0.2	J	
FLUORENE	0.5	J		0.6	J		0.4	J		0.7	J		0.4	J	
C1-FLUORENES	ND			ND			0.9	J		1.0	J		ND		
C2-FLUORENES	ND			ND			1.4	J		2.6	J		ND		
C3-FLUORENES	ND			ND			2.7	J		3.5	J		ND		
PHENANTHRENE	1.5	J		1.4	J		1.2	J		2.0	J		0.8	J	
ANTHRACENE	0.5	J		0.3	J		0.2	J		0.5	J		0.2	J	
C1-PHEN_ANTHR	2.2	J		2.0	J		1.3	J		2.1	J		1.0	J	
C2-PHEN_ANTHR	2.0	J		1.1	J		1.3	J		1.8	J		1.0	J	
C3-PHEN_ANTHR	ND			ND			0.8	J		1.2	J		ND		
C4-PHEN_ANTHR	ND			ND			0.8	J		ND			ND		
DIBENZOTHTIO	0.5	J		0.3	J		0.3	J		0.5	J		0.2	J	
C1-DIBEN	ND			ND			0.5	J		ND			ND		
C2-DIBEN	ND			ND			ND			ND			ND		
C3-DIBEN	ND			ND			ND			ND			ND		
FLUORANTHENE	0.9	J		0.8	J		0.7	J		1.2	J		0.6	J	
PYRENE	0.7	J		0.6	J		0.5	J		1.0	J		0.4	J	
C1-FLUORAN_PYR	1.3	J		1.1	J		0.9	J		1.7	J		ND		
BENaANTHRACENE	0.3	J		0.3	J		0.2	J		0.3	J		0.2	J	
CHRYSENE	0.6	J		0.4	J		0.4	J		0.8	J		0.3	J	
C1-CHRYSENES	ND			0.4	J		0.4	J		0.7	J		ND		
C2-CHRYSENES	ND			0.7	J		1.1	J		0.9	J		ND		
C3-CHRYSENES	ND			ND			ND			ND			ND		
C4-CHRYSENES	ND			ND			ND			ND			ND		
BENbFLUORAN	0.6	J		0.4	J		0.4	J		0.6	J		0.3	J	
BENkFLUORAN	0.6	J		0.9	J		0.4	J		1.2	J		0.6	J	
BENePYRENE	0.5	J		0.4	J		0.4	J		0.7	J		0.4	J	
BENaPYRENE	0.2	J		0.2	J		0.2	J		0.2	J		0.1	J	
PERYLENE	3.9	J		3.9	J		3.9	J		5.4	J		2.8	J	
I123cdPYRENE	0.3	J		0.3	J		0.3	J		0.2	J		0.2	J	
DBaHANTHRA	0.1	J		0.1	J		0.1	J		0.2	J		0.0	J	
BghiPERYLENE	0.4	J		0.3	J		0.3	J		0.4	J		0.3	J	
TOTAL PAH's	27.2	J		25.0	J		31.2	J		43.2	J		17.6	J	
(w/o PERYLENE)															

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 47	STATION 48	STATION 49	STATION 51	STATION 53
ID:					
LABSAMNO:	C13776	C13777	C13778	C13779	C13780
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	1.6 J	1.4 J	1.8 J	1.5 J	0.8 J
1-METHYLNAPH	1.1 J	1.1 J	1.1 J	1.7 J	0.8 J
2,6-DIMETHNAPH	0.9 J	0.9 J	1.1 J	1.4 J	0.7 J
1,6,7-TRIMETHNAPH	0.3 J	0.5 J	0.4 J	0.5 J	0.4 J
1-METHYLPHEN	0.6 J	0.5 J	0.3 J	0.6 J	0.4 J
Surrogate Recoveries					
NAPHD8:	67	67	70	70	75
ACEND10:	64	69	72	73	77
PHEND10:	66	74	77	70	78
CHRYD12:	68	81	81	72	77
PERYD12:	60	62	62	54	70

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 47	STATION 48	STATION 49	STATION 51	STATION 53
ID:					
LABSAMNO:	C13776	C13777	C13778	C13779	C13780
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.3 J	0.2 J	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL DDTs	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL PCBs	0.8 J	0.4 J	0.2 J	0.4 J	0.6 J
ALPHA-BHC	0.0 ND	0.2	0.0 ND	0.0 ND	0.0 ND
HCB	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
BETA-BHC	0.3	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 47	STATION 48	STATION 49	STATION 51	STATION 53
ID:					
LABSAMNO:	C13776	C13777	C13778	C13779	C13780
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.0 ND	0.0 J	0.0 ND	0.0 ND	0.0 ND
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	0.4	0.3	0.2	0.3	0.6
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.4	0.0 ND	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 47	STATION 48	STATION 49	STATION 51	STATION 53
ID:					
LABSAMNO:	C13776	C13777	C13778	C13779	C13780
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB #(CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFB%:	70	108	81	82	93
PCB#103%:	74	110	84	88	95
PCB#198%:	80	120	87	91	100

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 54	STATION 55	STATION 56	STATION 57	STATION 76
ID:					
LABSAMNO:	C13781	C13782	C13783	C13784	C13785
SAMPLE TYPE:	SAMP	SAMP	SAMP	SAMP	SAMP
COLLECTION DATE:	09/08/93	09/08/93	09/08/93	09/10/93	09/14/93
RECEIPT DATE:	09/26/93	09/26/93	09/26/93	09/26/93	09/26/93
QCBATCH:	M2075	M2075	M2075	M2075	M2075
EXTRACTION DATE:	05/26/94	05/26/94	05/26/94	05/26/94	05/26/94
METHOD:	GCFID	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	06/10/94	06/10/94	06/10/94	06/10/94	06/10/94
METHOD:	GCMS	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	06/03/94	06/03/94	06/03/94	06/03/94	06/03/94
METHOD:	GCECD	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	07/10/94	07/10/94	07/10/94	07/10/94	07/10/94
MATRIX:	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS
SUBMAT:					
WETWT:	20.07	20.03	20.06	20.05	20.03
DRYWT:	14.86	15.00	13.82	6.74	14.28
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	74.0%	74.9%	68.9%	33.6%	71.3%
VOL:					
VOLUNITS:	LITERS	LITERS	LITERS	LITERS	LITERS
Lipid Weight					
% LIPIDS:					
Surrogate Recoveries					
ALKANES:					
C12ALKD:	82	84	84	79	86
C20ALKD:	73	79	75	75	76
C24ALKD:	77	87	78	79	78
C30ALKD:	76	82	75	80	77
PAH's:					
NAPHD8:	81	69	70	67	76
ACEND10:	78	70	72	71	82
PHEND10:	80	72	78	78	76
CHRYD12:	73	67	73	88	73
PERYD12:	62	56	62	71	65
PESTICIDES & PCB's:					
DBOFB:	91	82	129 Q	94	98
PCB#103:	93	85	127 Q	97	99
PCB#198:	97	87	137 Q	103	105

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 54	STATION 55	STATION 56	STATION 57	STATION 76
ID:					
LABSAMNO:	C13781	C13782	C13783	C13784	C13785
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
C10	8 J	6 J	12 J	19 J	3 J
C11	0 ND	0 ND	0 ND	2 J	0 ND
C12	0 ND	0 ND	3 J	4 J	2 J
C13	0 ND	0 ND	0 ND	0 ND	0 ND
C14	0 ND	0 ND	0 ND	0 ND	0 ND
C15	18	11 J	12 J	20 J	11 J
C16	0 ND	0 ND	0 ND	0 ND	0 ND
C17	0 ND	0 ND	0 ND	73	0 ND
PRISTANE	0 ND	0 ND	0 ND	0 ND	0 ND
C18	0 ND	0 ND	0 ND	15 J	0 ND
PHYTANE	0 ND	0 ND	0 ND	9 J	0 ND
C19	4	21	15	38	0 ND
C20	3 J	0 ND	5	53	5
C21	12	11	17	198	17
C22	13 J	19	23	211	18 J
C23	38	38	52	605	44
C24	18	30	19	236	18
C25	49	52	64	767	57
C26	20	25	25	242	22
C27	66	74	86	1197	83
C28	11 J	21	15 J	167	13 J
C29	46	51	61	825	63
C30	0 ND	10 J	5 J	89	5 J
C31	30	36	45	651	43
C32	0 ND	4 J	0 ND	39	0 ND
C33	0 ND	11	0 ND	223	11
C34	0 ND	0 ND	0 ND	21	0 ND
TOT ALKANES	334	420	457	5703	414
UNIT:	ug/g	ug/g	ug/g	ug/g	ug/g
UCM	0.3 J	0.2 J	0.6 J	4.5 J	0.6 J
Surrogate Recoveries					
C12ALKD:	82	84	84	79	86
C20ALKD:	73	79	75	75	76
C24ALKD:	77	87	78	79	78
C30ALKD:	76	82	75	80	77

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 54	STATION 55	STATION 56	STATION 57	STATION 76
ID:					
LABSAMNO:	C13781	C13782	C13783	C13784	C13785
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
NAPHTHALENE	1.2 J	1.2 J	1.3 J	4.0 J	1.1 J
C1-NAPHTHALENES	2.1 J	1.7 J	2.0 J	5.0 J	1.3 J
C2-NAPHTHALENES	1.5 J	1.7 J	1.9 J	5.2 J	2.0 J
C3-NAPHTHALENES	4.3 J	4.4 J	ND	9.2 J	ND
C4-NAPHTHALENES	ND	ND	ND	ND	ND
BIPHENYL	0.7 J	0.6 J	0.8 J	1.8 J	0.5 J
ACENAPHTHYLENE	0.1 J	0.1 J	0.1 J	0.3 J	0.2 J
ACENAPHTHENE	0.4 J	0.3 J	0.2 J	0.8 J	0.3 J
FLUORENE	0.4 J	0.4 J	0.5 J	1.1 J	0.3 J
C1-FLUORENES	ND	ND	ND	1.9 J	ND
C2-FLUORENES	ND	ND	ND	5.4 J	ND
C3-FLUORENES	ND	ND	ND	6.0 J	ND
PHENANTHRENE	0.8 J	0.7 J	0.8 J	2.5 J	0.6 J
ANTHRACENE	0.1 J	0.1 J	0.1 J	0.5 J	0.1 J
C1-PHEN_ANTHR	0.9 J	0.8 J	0.9 J	3.6 J	0.8 J
C2-PHEN_ANTHR	1.1 J	1.1 J	1.2 J	4.9 J	ND
C3-PHEN_ANTHR	ND	ND	ND	4.0 J	ND
C4-PHEN_ANTHR	ND	ND	ND	4.3 J	ND
DIBENZOTHRIO	0.2 J	0.3 J	0.3 J	0.5 J	0.1 J
C1-DIBEN	ND	ND	ND	1.8 J	ND
C2-DIBEN	ND	ND	ND	2.2 J	ND
C3-DIBEN	ND	ND	ND	3.8 J	ND
FLUORANTHENE	0.5 J	0.5 J	0.6 J	2.9 J	0.5 J
PYRENE	0.4 J	0.4 J	0.3 J	2.7 J	0.3 J
C1-FLUORAN_PYR	ND	ND	ND	3.4 J	ND
BENaANTHRACENE	0.1 J	0.1 J	0.2 J	0.9 J	0.1 J
CHRYSENE	0.4 J	0.4 J	0.4 J	2.5 J	0.3 J
C1-CHRYSENES	ND	0.3 J	ND	1.5 J	ND
C2-CHRYSENES	ND	ND	ND	4.4 J	ND
C3-CHRYSENES	ND	ND	ND	ND	ND
C4-CHRYSENES	ND	ND	ND	ND	ND
BENbFLUORAN	0.3 J	0.3 J	0.4 J	2.7 J	0.4 J
BENkFLUORAN	0.6 J	0.6 J	0.7 J	5.4 J	0.7 J
BENePYRENE	0.3 J	0.3 J	0.3 J	2.3 J	0.3 J
BENaPYRENE	0.1 J	0.1 J	0.2 J	0.9 J	0.1 J
PERYLENE	2.2 J	2.1 J	3.0 J	108.9	3.0 J
I123cdPYRENE	0.2 J	0.2 J	0.2 J	1.6 J	0.2 J
DBahANTHRA	0.1 J	0.1 J	0.1 J	0.3 J	0.1 J
BghiPERYLENE	0.2 J	0.3 J	0.3 J	2.1 J	0.2 J
TOTAL PAH's (w/o PERYLENE)	16.7 J	16.8 J	13.6 J	101.9 J	10.3 J

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 54	STATION 55	STATION 56	STATION 57	STATION 76
ID:					
LABSAMNO:	C13781	C13782	C13783	C13784	C13785
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
2-METHYLNAPH	1.2 J	0.9 J	1.1 J	2.8 J	0.7 J
1-METHYLNAPH	0.8 J	0.8 J	0.9 J	2.2 J	0.6 J
2,6-DIMETHNAPH	0.4 J	0.7 J	0.6 J	2.1 J	0.3 J
1,6,7-TRIMETHNAPH	0.5 J	0.3 J	0.2 J	0.8 J	0.4 J
1-METHYLPHEN	0.3 J	0.1 J	0.3 J	0.9 J	0.4 J
Surrogate Recoveries					
NAPHD8:	81	69	70	67	76
ACEND10:	78	70	72	71	82
PHEND10:	80	72	78	78	76
CHRYD12:	73	67	73	88	73
PERYD12:	62	56	62	71	65

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 54	STATION 55	STATION 56	STATION 57	STATION 76
ID:					
LABSAMNO:	C13781	C13782	C13783	C13784	C13785
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
TOTAL BHCs	0.0 ND	0.1 J	0.0 ND	1.3	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TOTAL DDTs	0.0 ND	0.0 ND	0.0 ND	0.4 J	0.0 ND
TOTAL PCBs	0.2 J	0.3 J	0.2 J	0.8 J	0.2 J
ALPHA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HCB	0.0 ND	0.0 ND	0.0 ND	0.1 J	0.0 ND
BETA-BHC	0.0 ND	0.1 J	0.0 ND	0.5	0.0 ND
GAMMA-BHC	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	0.8	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND	0.0 ND	0.4	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 54	STATION 55	STATION 56	STATION 57	STATION 76
ID:					
LABSAMNO:	C13781	C13782	C13783	C13784	C13785
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CLORINATION)					
NOAA S&T PCBs					
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
138 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
170 (CL7)	0.2	0.2	0.2	0.7	0.2
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
OTHER PCB CONGENERS					
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.1 J	0.0 ND	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 54	STATION 55	STATION 56	STATION 57	STATION 76
ID:					
LABSAMNO:	C13781	C13782	C13783	C13784	C13785
UNIT:	ng/g	ng/g	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL
PCB # (CHLORINATION)					
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	0.0 ND	0.0 ND
Surrogate Recoveries					
DBOFB%:	91	82	129 Q	94	98
PCB#103%:	93	85	127 Q	97	99
PCB#198%:	97	87	137 Q	103	105

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

PAHs, Aliphatics, PCBs and Pesticides
in Sediments
Quality Control Sample Data

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 21	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 21
LABSAMNO:	Q7068	Q7069	C12911	Q7070
SAMPLE TYPE:	BLANK	BLANK	SAMP	MS
COLLECTION DATE:			08/20/93	08/20/93
RECEIPT DATE:			09/26/93	09/26/93
QCBATCH:	M748	M748	M748	M748
EXTRACTION DATE:	11/11/93	11/11/93	11/11/93	11/11/93
METHOD:	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	01/18/94	01/18/94	01/19/94	01/18/94
METHOD:	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	12/05/93	12/05/93	12/06/93	12/05/93
METHOD:	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	06/09/94	06/09/94	06/08/94	06/09/94
MATRIX:	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
SUBMAT:				
WETWT:			10.10	10.21
DRYWT:	10.00	10.00	6.29	6.38
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:			62.3%	62.5%
VOL:				
VOLUNITS:	LITERS	LITERS	LITERS	LITERS
Lipid Weight				
% LIPIDS:				
Surrogate Recoveries				
ALKANES:				
C12ALKD:	78	78	85	84
C20ALKD:	77	79	95	93
C24ALKD:	79	79	85	94
C30ALKD:	170 M	136 M	230 M	144 M
PAH's:				
NAPHD8:	75	66	78	72
ACEND10:	75	67	83	79
PHEND10:	78	68	79	89
CHRYD12:	74	63	79	85
PERYD12:	15 Q	12 Q	71	74
PESTICIDES & PCB's:				
DBOFB:	86	114	82	79
PCB#103:	82	106	76	78
PCB#198:	81	110	77	80

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 21	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 21
LABSAMNO:	Q7068	Q7069	C12911	Q7070
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
UNIT:	ng/g	ng/g	ng/g	%
C10	140	49	290	NA
C11	216	9 J	648	NA
C12	350	19	962	42.6
C13	13 J	0 ND	28 J	NA
C14	20	13 J	33	NA
C15	13 J	9 J	34 J	103.8
C16	26	6 J	26	NA
C17	7 J	17	69	103.4
PRISTANE	0 ND	0 ND	53 J	100.1
C18	0 ND	16	37	97.3
PHYTANE	0 ND	0 ND	0 J	NA
C19	15	16	172	NA
C20	5 J	5 J	166	86.1
C21	9 J	5 J	476	71.7
C22	12 J	12 J	330	NA
C23	6 J	13 J	981 J	NA
C24	12 J	36	490	91.0
C25	33	11 J	1627	NA
C26	31	0 ND	537 J	NA
C27	13 J	7 J	1722 J	NA
C28	9 J	10 J	410 J	81.5
C29	5 J	7 J	1739	NA
C30	8 J	0 ND	259 J	113.5
C31	0 ND	0 ND	1607	NA
C32	0 ND	0 ND	265 J	113.4
C33	0 ND	0 ND	459	NA
C34	0 ND	0 ND	293 J	120.7 Q
TOT ALKANES	946	260	13712	NA
UNIT:	ug/g	ug/g	ug/g	AVG % RECOV
UCM	0.0 ND	0.0 ND	2.6 J	94
Surrogate Recoveries				
C12ALKD:	78	78	85	84
C20ALKD:	77	79	95	93
C24ALKD:	79	79	85	94
C30ALKD:	170 M	136 M	230 M	144 M

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 21	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 21
LABSAMNO:	Q7068	Q7069	C12911	Q7070
UNIT:	ng/g	ng/g	ng/g	%
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
NAPHTHALENE	1.7 J	1.6 J	7.3 J	66
C1-NAPHTHALENES	1.7 J	1.6 J	7.6 J	NA
C2-NAPHTHALENES	1.4 J	1.6 J	4.5 J	NA
C3-NAPHTHALENES	1.8 J	2.0 J	6.5 J	NA
C4-NAPHTHALENES	ND	ND	3.1 J	NA
BIPHENYL	1.3 J	1.1 J	3.7 J	79
ACENAPHTHYLENE	0.0 J	0.1 J	0.1 J	65
ACENAPHTHENE	0.2 J	0.1 J	0.5 J	75
FLUORENE	0.4 J	0.3 J	1.5 J	88
C1-FLUORENES	ND	ND	1.6 J	NA
C2-FLUORENES	ND	ND	3.9 J	NA
C3-FLUORENES	ND	ND	5.8 J	NA
PHENANTHRENE	0.8 J	0.7 J	3.7 J	73
ANTHRACENE	0.1 J	0.2 J	0.5 J	81
C1-PHEN_ANTHR	ND	ND	3.9 J	NA
C2-PHEN_ANTHR	ND	ND	3.1 J	NA
C3-PHEN_ANTHR	ND	ND	3.0 J	NA
C4-PHEN_ANTHR	ND	ND	2.6 J	NA
DIBENZOTHRIO	0.2 J	0.1 J	0.5 J	55
C1-DIBEN	ND	ND	0.6 J	NA
C2-DIBEN	ND	ND	1.0 J	NA
C3-DIBEN	ND	ND	1.0 J	NA
FLUORANTHENE	0.2 J	0.2 J	2.5 J	73
PYRENE	0.3 J	0.3 J	1.8 J	66
C1-FLUORAN_PYR	ND	ND	1.9 J	NA
BENaANTHRACENE	0.1 J	0.1 J	1.1 J	151 Q
CHRYSENE	0.2 J	0.2 J	2.3 J	93
C1-CHRYSENES	ND	ND	2.8 J	NA
C2-CHRYSENES	ND	ND	3.3 J	NA
C3-CHRYSENES	ND	ND	ND	NA
C4-CHRYSENES	ND	ND	ND	NA
BENbFLUORAN	0.1 J	0.0 J	1.7 J	83
BENkFLUORAN	0.1 J	0.0 J	1.7 J	83
BENePYRENE	0.0 J	0.1 J	1.2 J	61
BENaPYRENE	0.1 J	0.1 J	0.8 J	93
PERYLENE	0.2 J	0.2 J	27.6 J	0 NA
I123cdPYRENE	0.0 J	0.1 J	2.1 J	122 Q
DBaHANTHRA	0.1 J	0.1 J	0.9 J	174 Q
BghiPERYLENE	0.1 J	0.1 J	2.5 J	105
TOTAL PAH's	10.8 J	10.7 J	92.6 J	AVG % RECOV
(w/o PERYLENE)				85

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 21	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 21
LABSAMNO:	Q7068	Q7069	C12911	Q7070
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
2-METHYLNAPH	1.1 J	1.1 J	4.5 J	115
1-METHYLNAPH	0.6 J	0.5 J	3.1 J	77
2,6-DIMETHNAPH	0.6 J	0.8 J	2.9 J	85
1,6,7-TRIMETHNAPH	0.5 J	0.1 J	1.2 J	90
1-METHYLPHEN	0.3 J	0.4 J	1.2 J	82
Surrogate Recoveries				
NAPHD8:	75	66	78	72
ACEND10:	75	67	83	79
PHEND10:	78	68	79	89
CHRYD12:	74	63	79	85
PERYD12:	15 Q	12 Q	71	74

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 21	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 21
LABSAMNO:	Q7068	Q7069	C12911	Q7070
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
TOTAL BHCs	1.5	0.4 J	0.2 J	
TOT CHLORDANES (ALL)	0.6 J	0.2 J	0.1 J	AVERAGE %
TOT CHLORDANES (S&T)	0.5	0.1 J	0.1 J	RECOVERY
TOTAL DDTs	1.2	0.3 J	0.1 J	97
TOTAL PCBs	0.5 J	0.2 J	0.3 J	
ALPHA-BHC	0.3	0.1 J	0.1 J	99
HCb	0.0 ND	0.0 ND	0.0 ND	70
BETA-BHC	0.3	0.1 J	0.1 J	73
GAMMA-BHC	0.3	0.1 J	0.0 ND	97
DELTA-BHC	0.6	0.1	0.1 J	109
HEPTACHLOR	0.2	0.1 J	0.0 ND	76
HEPTA-EPOXIDE	0.3	0.1 J	0.0 ND	74
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	107
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	92
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	80
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	77
CIS-NONACHLOR	0.1	0.0 ND	0.0 ND	91
ALDRIN	0.2	0.1 J	0.0 ND	87
DIELDRIN	0.4	0.1	0.1 J	78
ENDRIN	0.3	0.1	0.0 ND	100
MIREX	0.0 ND	0.0 ND	0.0 ND	60
2,4'DDE (O,P'DDE)	0.4	0.1 J	0.0 ND	77
4,4'DDE (P,P'DDE)	0.2	0.0 ND	0.0 ND	81
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	81
4,4'DDD (P,P'DDD)	0.3	0.1 J	0.0 ND	88
2,4'DDT (O,P'DDT)	0.1	0.0 ND	0.0 ND	79
4,4'DDT (P,P'DDT)	0.2	0.1 J	0.0 ND	85

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 21	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 21
LABSAMNO:	Q7068	Q7069	C12911	Q7070
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
PCB # (CLORINATION)				
NOAA S&T PCBs				
8 (CL2)	0.1 J	0.0 ND	0.0 ND	91
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	77
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	99
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	89
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	95
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	93
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	82
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	89
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	127 Q
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	93
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	89
138 (CL6)	0.2 J	0.1 J	0.0 ND	90
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	118
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	64
170 (CL7)	0.0 ND	0.0 ND	0.0 ND	517 Q
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	87
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	88
195 (CL8)	0.0 ND	0.0 ND	0.0 ND	93
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	63
209 (CL10)	0.0 ND	0.0 ND	0.0 ND	88
OTHER PCB CONGENERS				
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	NA
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	NA
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
50 (CL4)	0.1 J	0.0 ND	0.0 ND	109
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
49 (CL4)	0.1 J	0.0 ND	0.0 ND	NA
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
37/42 (CL4)	0.0 ND	0.0 ND	0.1 J	NA
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 21	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 21
LABSAMNO:	Q7068	Q7069	C12911	Q7070
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
PCB # (CHLORINATION)				
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	88
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	NA
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	87
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
174 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	NA
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
191 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	NA
Surrogate Recoveries				
DIOFB%:	86	114	82	79
PCB#103%:	82	106	76	78
PCB#198%:	81	110	77	80

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 66	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 66
LABSAMNO:	Q7073	Q7074	C12921	Q7075
SAMPLE TYPE:	BLANK	BLANK	SAMP	MS
COLLECTION DATE:			09/13/93	09/13/93
RECEIPT DATE:			09/26/93	09/26/93
QCBATCH:	M749	M749	M749	M749
EXTRACTION DATE:	11/12/93	11/12/93	11/12/93	11/12/93
METHOD:	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	05/12/94	05/12/94	05/13/94	05/12/94
METHOD:	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	12/07/93	12/09/93	12/08/93	12/07/93
METHOD:	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	06/08/94	06/08/94	06/08/94	06/08/94
MATRIX:	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT
SUBMAT:				
WETWT:			10.25	10.10
DRYWT:	10.00	10.00	5.18	5.10
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:			50.5%	50.5%
VOL:				
VOLUNITS:	LITERS	LITERS	LITERS	LITERS
Lipid Weight				
% LIPIDS:				
Surrogate Recoveries				
ALKANES:				
C12ALKD:	60	114	51	54
C20ALKD:	58	114	54	53
C24ALKD:	60	117	54	53
C30ALKD:	110	60	103	88
PAH's:				
NAPHD8:	78	55	72	66
ACEND10:	80	66	73	72
PHEND10:	85	82	80	82
CHRYD12:	64	119	77	80
PERYD12:	13 Q	9 Q	56	48
PESTICIDES & PCB's:				
DBOFB:	97	21 Q	72	85
PCB#103:	97	33 Q	80	88
PCB#198:	96	31 Q	76	87

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 66	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 66
LABSAMNO:	Q7073	Q7074	C12921	Q7075
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
UNIT:	ng/g	ng/g	ng/g	%
C10	223	159	318	NA
C11	0 ND	0 ND	7 J	NA
C12	0 ND	3 J	9 J	104
C13	0 ND	0 ND	0 ND	NA
C14	2 J	0 ND	8 J	NA
C15	8 J	0 ND	11 J	105
C16	0 ND	0 ND	5 J	NA
C17	0 ND	0 ND	9 J	106
PRISTANE	0 ND	0 ND	4 J	105
C18	5 J	0 ND	12 J	100
PHYTANE	0 ND	0 ND	0 ND	NA
C19	0 ND	0 ND	23	NA
C20	0 ND	0 ND	25	93
C21	0 ND	0 ND	77	89
C22	0 ND	1 J	77	NA
C23	3 J	0 ND	184	NA
C24	3 J	1 J	93	97
C25	0 ND	0 ND	240	NA
C26	0 ND	0 ND	90	NA
C27	3 J	0 ND	352	NA
C28	3 J	0 ND	68	107
C29	5 J	0 ND	356	NA
C30	0 ND	0 ND	63	169 Q
C31	0 ND	0 ND	356	NA
C32	0 ND	0 ND	26	179 Q
C33	0 ND	0 ND	120	NA
C34	0 ND	0 ND	0 ND	193 Q
TOT ALKANES	254	164	2532	NA
UNIT:	ug/g	ug/g	ug/g	AVG % RECOV
UCM	4.1 J	1.0 J	3.9 J	121 Q
Surrogate Recoveries				
C12ALKD:	60	114	51	54
C20ALKD:	58	114	54	53
C24ALKD:	60	117	54	53
C30ALKD:	110	60	103	88

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 66	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 66
LABSAMNO:	Q7073	Q7074	C12921	Q7075
UNIT:	ng/g	ng/g	ng/g	%
PNA Analyte	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
NAPHTHALENE	2.5 J	1.6 J	6.4 J	64
C1-NAPHTHALENES	1.5 J	1.2 J	4.9 J	NA
C2-NAPHTHALENES	ND	ND	4.5 J	NA
C3-NAPHTHALENES	ND	ND	4.4 J	NA
C4-NAPHTHALENES	ND	ND	ND	NA
BIPHENYL	1.4 J	0.6 J	3.5 J	74
ACENAPHTHYLENE	0.1 J	0.1 J	0.2 J	62
ACENAPHTHENE	0.2 J	0.4 J	0.8 J	77
FLUORENE	0.3 J	0.4 J	1.5 J	86
C1-FLUORENES	ND	ND	ND	NA
C2-FLUORENES	ND	ND	ND	NA
C3-FLUORENES	ND	ND	ND	NA
PHENANTHRENE	0.5 J	0.6 J	4.7 J	66
ANTHRACENE	0.1 J	0.2 J	0.2 J	75
C1-PHEN_ANTHR	ND	ND	4.8 J	NA
C2-PHEN_ANTHR	ND	ND	3.0 J	NA
C3-PHEN_ANTHR	ND	ND	ND	NA
C4-PHEN_ANTHR	ND	ND	ND	NA
DIBENZOTHTIO	0.2 J	0.1 J	0.4 J	51
C1-DIBEN	ND	ND	ND	NA
C2-DIBEN	ND	ND	ND	NA
C3-DIBEN	ND	ND	ND	NA
FLUORANTHENE	0.1 J	0.4 J	1.7 J	74
PYRENE	0.2 J	0.7 J	2.5 J	72
C1-FLUORAN_PYR	ND	ND	2.8 J	NA
BENaANTHRACENE	0.1 J	0.1 J	0.5 J	80
CHRYSENE	0.0 J	0.2 J	2.2 J	77
C1-CHRYSENES	ND	ND	1.9 J	NA
C2-CHRYSENES	ND	ND	1.4 J	NA
C3-CHRYSENES	ND	ND	ND	NA
C4-CHRYSENES	ND	ND	ND	NA
BENbFLUORAN	0.0 J	0.1 J	0.7 J	74
BENkFLUORAN	0.0 J	0.1 J	0.7 J	75
BENePYRENE	0.0 J	0.1 J	1.3 J	75
BENaPYRENE	0.2 J	0.1 J	0.6 J	94
PERYLENE	0.9 J	0.8 J	16.9 J	57
I123cdPYRENE	0.1 J	0.4 J	0.1 J	96
DBahANTHRA	0.1 J	0.2 J	0.1 J	100
BghiPERYLENE	0.0 J	0.2 J	1.4 J	94
TOTAL PAH's	7.9 J	7.9 J	57.0 J	AVG % RECOV
(w/o PERYLENE)				78

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 66	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 66
LABSAMNO:	Q7073	Q7074	C12921	Q7075
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
2-METHYLNAPH	1.0 J	0.8 J	2.8 J	106
1-METHYLNAPH	0.5 J	0.4 J	2.0 J	74
2,6-DIMETHNAPH	0.6 J	0.4 J	1.8 J	81
1,6,7-TRIMETHNAPH	0.1 J	0.2 J	0.4 J	93
1-METHYLPHEN	0.1 J	0.3 J	1.3 J	65
Surrogate Recoveries				
NAPHD8:	78	55	72	66
ACEND10:	80	66	73	72
PHEND10:	85	82	80	82
CHRYD12:	64	119	77	80
PERYD12:	13 Q	9 Q	56	48

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 66	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 66
LABSAMNO:	Q7073	Q7074	C12921	Q7075
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL

TOTAL BHCs	0.0 ND	0.0 ND	0.0 ND	
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND	0.0 ND	AVERAGE %
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND	0.0 ND	RECOVERY
TOTAL DDTs	0.0 ND	0.1 J	0.0 ND	81
TOTAL PCBs	3.6 J	0.3 J	0.2 J	
ALPHA-BHC	0.0 ND	0.0 ND	0.0 ND	77
HCb	0.0 ND	0.0 ND	0.0 ND	75
BETA-BHC	0.0 ND	0.0 ND	0.0 ND	69
GAMMA-BHC	0.0 ND	0.0 ND	0.0 ND	73
DELTA-BHC	0.0 ND	0.0 ND	0.0 ND	76
HEPTACHLOR	0.0 ND	0.0 ND	0.0 ND	70
HEPTA-EPOXIDE	0.0 ND	0.0 ND	0.0 ND	67
OXYCHLORDANE	0.0 ND	0.0 ND	0.0 ND	94
GAMMA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	84
ALPHA-CHLORDANE	0.0 ND	0.0 ND	0.0 ND	74
TRANS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	72
CIS-NONACHLOR	0.0 ND	0.0 ND	0.0 ND	84
ALDRIN	0.0 ND	0.0 ND	0.0 ND	72
DIELDRIN	0.0 ND	0.0 ND	0.0 ND	64
ENDRIN	0.0 ND	0.0 ND	0.0 ND	72
MIREX	0.0 ND	0.0 ND	0.0 ND	75
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND	0.0 ND	70
4,4'DDE (P,P'DDE)	0.0 ND	0.1 J	0.0 ND	69
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND	0.0 ND	71
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND	0.0 ND	83
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND	0.0 ND	76
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND	0.0 ND	73

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 66	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 66
LABSAMNO:	Q7073	Q7074	CL2921	Q7075
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
PCB # (CLORINATION)				
NOAA S&T PCBs				
8 (CL2)	0.0 ND	0.0 ND	0.0 ND	94
18 (CL3)	0.0 ND	0.0 ND	0.0 ND	87
28 (CL3)	0.0 ND	0.0 ND	0.0 ND	89
44 (CL4)	0.0 ND	0.0 ND	0.0 ND	87
52 (CL4)	0.0 ND	0.0 ND	0.0 ND	92
66 (CL4)	0.0 ND	0.0 ND	0.0 ND	87
101 (CL5)	0.0 ND	0.0 ND	0.0 ND	85
105 (CL5)	0.0 ND	0.0 ND	0.0 ND	83
110/77 (CL5/4)	0.0 ND	0.0 ND	0.0 ND	113
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	91
128 (CL6)	0.0 ND	0.0 ND	0.0 ND	95
138 (CL6)	0.4	0.1 J	0.1 J	75
126 (CL5)	0.0 ND	0.0 ND	0.0 ND	108
153 (CL6)	0.0 ND	0.0 ND	0.0 ND	70
170 (CL7)	0.6	0.2	0.1 J	72
180 (CL7)	0.0 ND	0.0 ND	0.0 ND	84
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND	0.0 ND	86
195 (CL8)	0.8	0.0 ND	0.0 ND	83
206 (CL9)	0.0 ND	0.0 ND	0.0 ND	74
209 (CL10)	0.3	0.0 ND	0.0 ND	83
OTHER PCB CONGENERS				
7 (CL2)	0.0 ND	0.0 ND	0.0 ND	NA
15 (CL2)	0.0 ND	0.0 ND	0.0 ND	NA
24 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
16/32 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
29 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
26 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
25 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
50 (CL4)	0.0 ND	0.0 ND	0.0 ND	113
33 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
22 (CL3)	0.0 ND	0.0 ND	0.0 ND	NA
45 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
46 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
49 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
47/48 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
37/42 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
41/64 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
40 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
74 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 66	LAB QA SAMPLE
ID:	NaSO4 BLNK	PROC BLANK		STATION 66
LABSAMNO:	Q7073	Q7074	C12921	Q7075
UNIT:	ng/g	ng/g	ng/g	%
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL	Recovery DB QUAL
PCB # (CHLORINATION)				
70 (CL4)	0.0 ND	0.0 ND	0.0 ND	NA
88 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
60/56 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
92? (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
84? (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
99 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
83 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
97 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
87 (CL5)	0.0 ND	0.0 ND	0.0 ND	87
85 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
136 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
82 (CL5)	0.0 ND	0.0 ND	0.0 ND	NA
151 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND	0.0 ND	NA
149 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
188 (CL7)	0.0 ND	0.0 ND	0.0 ND	77
146 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
141 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
137 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
UNK (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
158 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
129 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
178 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
183 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
167 (CL6)	0.0 ND	0.0 ND	0.0 ND	NA
185 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
174 (CL7)	0.8	0.0 ND	0.0 ND	NA
177 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND	0.0 ND	NA
200 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
172 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
191 (CL7)	0.8	0.0 ND	0.0 ND	NA
201 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
196 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
189 (CL7)	0.0 ND	0.0 ND	0.0 ND	NA
194 (CL8)	0.0 ND	0.0 ND	0.0 ND	NA
205 (CL9)	0.0 ND	0.0 ND	0.0 ND	NA
Surrogate Recoveries				
DIOFB%:	97	21 Q	72	85
PCB#103%:	97	33 Q	80	88
PCB#198%:	96	31 Q	76	87

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 66	LAB QA SAMPLE
ID:		STATION 66
LABSAMNO:	C12921	Q7076
SAMPLE TYPE:	SAMP	DUP
COLLECTION DATE:	09/13/93	09/13/93
RECEIPT DATE:	09/26/93	09/26/93
QCBATCH:	M749	M749
EXTRACTION DATE:	11/12/93	11/12/93
METHOD:	GCFID	GCFID
ANALYSIS DATE:	05/13/94	05/12/94
METHOD:	GCMS	GCMS
ANALYSIS DATE:	12/08/93	12/07/93
METHOD:	GCECD	GCECD
ANALYSIS DATE:	06/08/94	06/09/94
MATRIX:	SEDIMENT	SEDIMENT
SUBMAT:		
WETWT:	10.25	10.18
DRYWT:	5.18	5.13
WTUNITS:	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	50.5%	50.4%
VOL:		
VOLUNITS:	LITERS	LITERS
Lipid Weight		
% LIPIDS:		
Surrogate Recoveries		
ALKANES:		
C12ALKD:	51	46
C20ALKD:	54	60
C24ALKD:	54	58
C30ALKD:	103	88
PAH's:		
NAPHD8:	72	57
ACEND10:	73	67
PHEND10:	80	69
CHRYD12:	77	73
PERYD12:	56	52
PESTICIDES & PCB's:		
DBOFB:	72	58
PCB#103:	80	69
PCB#198:	76	68

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 66	LAB QA SAMPLE	
ID:		STATION 66	
LABSAMNO:	C12921	Q7076	
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL	% RPD
UNIT:	ng/g	ng/g	
C10	318	445	33
C11	7 J	7 J	
C12	9 J	10 J	
C13	0 ND	0 ND	
C14	8 J	9 J	
C15	11 J	12 J	
C16	5 J	4 J	
C17	9 J	8 J	
PRISTANE	4 J	4 J	
C18	12 J	8 J	
PHYTANE	0 ND	0 ND	
C19	23	14	49
C20	25	26	6
C21	77	77	1
C22	77	75	3
C23	184	183	0
C24	93	93	0
C25	240	235	2
C26	90	96	6
C27	352	320	10
C28	68	70	3
C29	356	302	16
C30	63	54	15
C31	356	285	22
C32	26	25 J	
C33	120	91	27
C34	0 ND	4 J	
TOT ALKANES	2532	2456	3
UNIT:	ug/g	ug/g	
UCM	3.9 J	6.1 J	
Surrogate Recoveries			
C12ALKD:	51	46	
C20ALKD:	54	60	
C24ALKD:	54	58	
C30ALKD:	103	88	

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 66	LAB QA SAMPLE	
ID:		STATION 66	
LABSAMNO:	C12921	Q7076	
UNIT:	ng/g	ng/g	
PNA Analyte	Conc DB QUAL	Conc DB QUAL	% RPD
NAPHTHALENE	6.4 J	9.1 J	
C1-NAPHTHALENES	4.9 J	6.4 J	
C2-NAPHTHALENES	4.5 J	5.9 J	
C3-NAPHTHALENES	4.4 J	5.5 J	
C4-NAPHTHALENES	ND	ND	
BIPHENYL	3.5 J	4.0 J	
ACENAPHTHYLENE	0.2 J	0.2 J	
ACENAPHTHENE	0.8 J	0.5 J	
FLUORENE	1.5 J	1.3 J	
C1-FLUORENES	ND	ND	
C2-FLUORENES	ND	ND	
C3-FLUORENES	ND	ND	
PHENANTHRENE	4.7 J	4.6 J	
ANTHRACENE	0.2 J	0.4 J	
C1-PHEN_ANTHR	4.8 J	4.9 J	
C2-PHEN_ANTHR	3.0 J	3.9 J	
C3-PHEN_ANTHR	ND	ND	
C4-PHEN_ANTHR	ND	ND	
DIBENZOTHRIO	0.4 J	0.4 J	
C1-DIBEN	ND	ND	
C2-DIBEN	ND	ND	
C3-DIBEN	ND	ND	
FLUORANTHENE	1.7 J	1.5 J	
PYRENE	2.5 J	2.6 J	
C1-FLUORAN_PYR	2.8 J	3.4 J	
BENaANTHRACENE	0.5 J	0.5 J	
CHRYSENE	2.2 J	2.2 J	
C1-CHRYSENES	1.9 J	ND	
C2-CHRYSENES	1.4 J	ND	
C3-CHRYSENES	ND	ND	
C4-CHRYSENES	ND	ND	
BENbFLUORAN	0.7 J	1.9 J	
BENkFLUORAN	0.7 J	1.9 J	
BENePYRENE	1.3 J	1.6 J	
BENaPYRENE	0.6 J	0.5 J	
PERYLENE	16.9 J	14.8 J	
I123cdPYRENE	0.1 J	1.6 J	
DBahANTHRA	0.1 J	0.6 J	
BghiPERYLENE	1.4 J	1.5 J	
TOTAL PAH's	57.0 J	67.2 J	
(w/o PERYLENE)			

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 66	LAB QA SAMPLE
ID:		STATION 66
LABSAMNO:	C12921	Q7076
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

2-METHYLNAPH	2.8 J	4.0 J
1-METHYLNAPH	2.0 J	2.3 J
2,6-DIMETHNAPH	1.8 J	2.6 J
1,6,7-TRIMETHNAPH	0.4 J	0.6 J
1-METHYLPHEN	1.3 J	1.0 J

Surrogate Recoveries

NAPHD8:	72	57
ACEND10:	73	67
PHEND10:	80	69
CHRYD12:	77	73
PERYD12:	56	52

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 66	LAB QA SAMPLE
ID:		STATION 66
LABSAMNO:	C12921	Q7076
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

TOTAL BHCs	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND
TOTAL DDTs	0.0 ND	0.0 ND
TOTAL PCBs	0.2 J	0.2 J

ALPHA-BHC	0.0 ND	0.0 ND
HCB	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.0 ND
GAMMA-BHC	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 66	LAB QA SAMPLE
ID:		STATION 66
LABSAMNO:	C12921	Q7076
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND
138 (CL6)	0.1 J	0.1 J
126 (CL5)	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND
170 (CL7)	0.1 J	0.1 J
180 (CL7)	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 66	LAB QA SAMPLE
ID:		STATION 66
LABSAMNO:	C12921	Q7076
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

PCB # (CHLORINATION)

70 (CL4)	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND

Surrogate Recoveries

DBOFB%:	72	58
PCB#103%:	80	69
PCB#198%:	76	68

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 32	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 32
LABSAMNO:	Q9003	Q9004	C13771	Q9001
SAMPLE TYPE:	BLANK	LBS	SAMP	MS
COLLECTION DATE:			09/01/93	09/01/93
RECEIPT DATE:			09/26/93	09/26/93
QCBATCH:	M2065	M2065	M2065	M2065
EXTRACTION DATE:	05/16/94	05/16/94	05/16/94	05/16/94
METHOD:	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	06/14/94	06/14/94	06/15/94	06/14/94
METHOD:	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	05/31/94	05/31/94	06/01/94	06/01/94
METHOD:	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	07/09/94	07/09/94	07/09/94	07/09/94
MATRIX:	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS
SUBMAT:				
WETWT:			20.24	20.28
DRYWT:	10.00	10.00	17.33	17.33
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:			85.6%	85.5%
VOL:				
VOLUNITS:	LITERS	LITERS	LITERS	LITERS
Lipid Weight				
% LIPIDS:				
Surrogate Recoveries				
ALKANES:				
C12ALKD:	88	89	95	92
C20ALKD:	80	83	86	90
C24ALKD:	83	83	88	89
C30ALKD:	86	84	91	91
PAH's:				
NAPHD8:	65	74	81	70
ACEND10:	63	76	83	72
PHEND10:	68	89	86	81
CHRYD12:	67	78	80	78
PERYD12:	36 Q	56	63	64
PESTICIDES & PCB's:				
DBOFB:	73	102	81	80
PCB#103:	76	102	83	86
PCB#198:	76	106	82	90

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 32	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 32
LABSAMNO:	Q9003	Q9004	C13771	Q9001
Alkanes and Isoprenoids	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
UNIT:	ng/g	%	ng/g	%
C10	8 J	NA	7 J	NA
C11	0 ND	NA	0 ND	NA
C12	3 J	101	1 J	99
C13	0 ND	NA	0 ND	NA
C14	0 ND	NA	0 ND	NA
C15	7 J	111	5 J	108
C16	0 ND	NA	0 ND	NA
C17	0 ND	112	0 ND	111
PRISTANE	0 ND	108	0 ND	108
C18	0 ND	99	0 ND	99
PHYTANE	0 ND	NA	0 ND	NA
C19	0 ND	NA	0 ND	NA
C20	0 ND	93	0 ND	93
C21	0 ND	91	0 ND	91
C22	0 ND	NA	0 ND	NA
C23	0 ND	NA	0 ND	NA
C24	0 ND	97	0 ND	97
C25	0 ND	NA	0 ND	NA
C26	0 ND	NA	0 ND	NA
C27	0 ND	NA	4 J	NA
C28	0 ND	95	0 ND	96
C29	0 ND	NA	3 J	NA
C30	0 ND	96	0 ND	96
C31	0 ND	NA	0 ND	NA
C32	0 ND	88	0 ND	89
C33	0 ND	NA	0 ND	NA
C34	0 ND	91	0 ND	92
TOT ALKANES	18	NA	20	NA
UNIT:	ug/g	AVG % RECOV	ug/g	AVG % RECOV
UCM	1.3 J	99	0.2 J	98
Surrogate Recoveries				
C12ALKD:	88	89	95	92
C20ALKD:	80	83	86	90
C24ALKD:	83	83	88	89
C30ALKD:	86	84	91	91

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE		LAB QA SAMPLE	STATION 32	LAB QA SAMPLE
ID:	PROC BLANK		SPIKE BLANK		STATION 32
LABSAMNO:	Q9003		Q9004	C13771	Q9001
UNIT:	ng/g		%	ng/g	%
PNA Analyte	Conc	DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
NAPHTHALENE	1.0 J		101	0.7 J	97
C1-NAPHTHALENES	2.2 J		NA	0.8 J	NA
C2-NAPHTHALENES	ND		NA	ND	NA
C3-NAPHTHALENES	ND		NA	ND	NA
C4-NAPHTHALENES	ND		NA	ND	NA
BIPHENYL	1.0 J		99	0.5 J	95
ACENAPHTHYLENE	0.6 J		90	0.1 J	94
ACENAPHTHENE	0.4 J		96	0.2 J	100
FLUORENE	0.4 J		96	0.1 J	96
C1-FLUORENES	ND		NA	ND	NA
C2-FLUORENES	ND		NA	ND	NA
C3-FLUORENES	ND		NA	ND	NA
PHENANTHRENE	0.6 J		79	0.3 J	84
ANTHRACENE	0.2 J		57	0.1 J	54
C1-PHEN_ANTHR	ND		NA	ND	NA
C2-PHEN_ANTHR	ND		NA	ND	NA
C3-PHEN_ANTHR	ND		NA	ND	NA
C4-PHEN_ANTHR	ND		NA	ND	NA
DIBENZOTHRIO	0.5 J		60	0.1 J	61
C1-DIBEN	ND		NA	ND	NA
C2-DIBEN	ND		NA	ND	NA
C3-DIBEN	ND		NA	ND	NA
FLUORANTHENE	0.1 J		90	0.1 J	93
PYRENE	0.3 J		84	0.2 J	94
C1-FLUORAN_PYR	ND		NA	ND	NA
BENaANTHRACENE	0.1 J		74	0.1 J	82
CHRYSENE	0.1 J		91	0.0 J	94
C1-CHRYSENES	ND		NA	ND	NA
C2-CHRYSENES	ND		NA	ND	NA
C3-CHRYSENES	ND		NA	ND	NA
C4-CHRYSENES	ND		NA	ND	NA
BENbFLUORAN	0.0 J		89	0.1 J	101
BENkFLUORAN	0.0 J		95	0.1 J	84
BENePYRENE	0.2 J		89	0.1 J	97
BENaPYRENE	0.1 J		75	0.2 J	75
PERYLENE	0.1 J		76	0.3 J	72
I123cdPYRENE	0.1 J		55	0.1 J	60
DBahANTHRA	0.0 J		54	0.0 J	55
BghiPERYLENE	0.0 J		71	0.0 J	71
TOTAL PAH's	7.8 J		AVG % RECOV	3.7 J	AVG % RECOV
(w/o PERYLENE)			83		85

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 32	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 32
LABSAMNO:	Q9003	Q9004	C13771	Q9001
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
2-METHYLNAPH	1.1 J	91	0.5 J	85
1-METHYLNAPH	1.1 J	100	0.2 J	100
2,6-DIMETHNAPH	0.7 J	88	0.3 J	91
1,6,7-TRIMETHNAPH	0.7 J	85	0.1 J	89
1-METHYLPHEN	0.2 J	78	0.1 J	88
Surrogate Recoveries				
NAPHD8:	65	74	81	70
ACEND10:	63	76	83	72
PHEND10:	68	89	86	81
CHRYD12:	67	78	80	78
PERYD12:	36 Q	56	63	64

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 32	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 32
LABSAMNO:	Q9003	Q9004	C13771	Q9001
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
TOTAL BHCs	0.0 ND		0.0 ND	
TOT CHLORDANES (ALL)	0.0 ND	AVERAGE %	0.0 ND	AVERAGE %
TOT CHLORDANES (S&T)	0.0 ND	RECOVERY	0.0 ND	RECOVERY
TOTAL DDTs	0.0 ND	92	0.0 ND	89
TOTAL PCBs	0.8 J		0.4 J	
ALPHA-BHC	0.0 ND	89	0.0 ND	82
HCB	0.0 ND	88	0.0 ND	83
BETA-BHC	0.0 ND	73	0.0 ND	71
GAMMA-BHC	0.0 ND	90	0.0 ND	83
DELTA-BHC	0.0 ND	94	0.0 ND	91
HEPTACHLOR	0.0 ND	81	0.0 ND	75
HEPTA-EPOXIDE	0.0 ND	76	0.0 ND	77
OXYCHLORDANE	0.0 ND	103	0.0 ND	94
GAMMA-CHLORDANE	0.0 ND	94	0.0 ND	90
ALPHA-CHLORDANE	0.0 ND	88	0.0 ND	86
TRANS-NONACHLOR	0.0 ND	84	0.0 ND	81
CIS-NONACHLOR	0.0 ND	95	0.0 ND	93
ALDRIN	0.0 ND	83	0.0 ND	79
DIELDRIN	0.0 ND	82	0.0 ND	80
ENDRIN	0.0 ND	97	0.0 ND	94
MIREX	0.0 ND	89	0.0 ND	88
2,4'DDE (O,P'DDE)	0.0 ND	75	0.0 ND	74
4,4'DDE (P,P'DDE)	0.0 ND	80	0.0 ND	77
2,4'DDD (O,P'DDD)	0.0 ND	79	0.0 ND	77
4,4'DDD (P,P'DDD)	0.0 ND	96	0.0 ND	95
2,4'DDT (O,P'DDT)	0.0 ND	96	0.0 ND	90
4,4'DDT (P,P'DDT)	0.0 ND	90	0.0 ND	82

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 32	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 32
LABSAMNO:	Q9003	Q9004	CL3771	Q9001
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
PCB # (CLORINATION)				
NOAA S&T PCBs				
8 (CL2)	0.0 ND	101	0.0 ND	95
18 (CL3)	0.0 ND	94	0.0 ND	89
28 (CL3)	0.0 ND	95	0.0 ND	89
44 (CL4)	0.0 ND	98	0.0 ND	94
52 (CL4)	0.0 ND	98	0.0 ND	95
66 (CL4)	0.0 ND	96	0.0 ND	94
101 (CL5)	0.0 ND	94	0.0 ND	94
105 (CL5)	0.0 ND	94	0.0 ND	91
110/77 (CL5/4)	0.0 ND	118	0.0 ND	118
118/108/149 (CL5/5/6)	0.0 ND	99	0.0 ND	99
128 (CL6)	0.0 ND	99	0.0 ND	92
138 (CL6)	0.1 J	98	0.0 ND	92
126 (CL5)	0.0 ND	110	0.0 ND	110
153 (CL6)	0.0 ND	77	0.0 ND	77
170 (CL7)	0.7	109	0.4	89
180 (CL7)	0.0 ND	92	0.0 ND	92
187/182/159 (CL7/7/6)	0.0 ND	97	0.0 ND	96
195 (CL8)	0.0 ND	96	0.0 ND	95
206 (CL9)	0.0 ND	86	0.0 ND	85
209 (CL10)	0.0 ND	97	0.0 ND	96
OTHER PCB CONGENERS				
7 (CL2)	0.0 ND	NA	0.0 ND	NA
15 (CL2)	0.0 ND	NA	0.0 ND	NA
24 (CL3)	0.0 ND	NA	0.0 ND	NA
16/32 (CL3)	0.0 ND	NA	0.0 ND	NA
29 (CL3)	0.0 ND	NA	0.0 ND	NA
26 (CL3)	0.0 ND	NA	0.0 ND	NA
25 (CL3)	0.0 ND	NA	0.0 ND	NA
50 (CL4)	0.0 ND	98	0.0 ND	94
33 (CL3)	0.0 ND	NA	0.0 ND	NA
22 (CL3)	0.0 ND	NA	0.0 ND	NA
45 (CL4)	0.0 ND	NA	0.0 ND	NA
46 (CL4)	0.0 ND	NA	0.0 ND	NA
49 (CL4)	0.0 ND	NA	0.0 ND	NA
47/48 (CL4)	0.0 ND	NA	0.0 ND	NA
37/42 (CL4)	0.0 ND	NA	0.0 ND	NA
41/64 (CL4)	0.0 ND	NA	0.0 ND	NA
40 (CL4)	0.0 ND	NA	0.0 ND	NA
74 (CL4)	0.0 ND	NA	0.0 ND	NA

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 32	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 32
LABSAMNO:	Q9003	Q9004	C13771	Q9001
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
PCB # (CHLORINATION)				
70 (CL4)	0.0 ND	NA	0.0 ND	NA
88 (CL5)	0.0 ND	NA	0.0 ND	NA
60/56 (CL5)	0.0 ND	NA	0.0 ND	NA
92? (CL5)	0.0 ND	NA	0.0 ND	NA
84? (CL5)	0.0 ND	NA	0.0 ND	NA
99 (CL5)	0.0 ND	NA	0.0 ND	NA
83 (CL5)	0.0 ND	NA	0.0 ND	NA
97 (CL5)	0.0 ND	NA	0.0 ND	NA
87 (CL5)	0.0 ND	96	0.0 ND	94
85 (CL5)	0.0 ND	NA	0.0 ND	NA
136 (CL6)	0.0 ND	NA	0.0 ND	NA
82 (CL5)	0.0 ND	NA	0.0 ND	NA
151 (CL6)	0.0 ND	NA	0.0 ND	NA
107/108/144 (CL5/5/6)	0.0 ND	NA	0.0 ND	NA
149 (CL6)	0.0 ND	NA	0.0 ND	NA
188 (CL7)	0.0 ND	96	0.0 ND	98
146 (CL6)	0.0 ND	NA	0.0 ND	NA
141 (CL6)	0.0 ND	NA	0.0 ND	NA
137 (CL6)	0.0 ND	NA	0.0 ND	NA
UNK (CL6)	0.0 ND	NA	0.0 ND	NA
158 (CL7)	0.0 ND	NA	0.0 ND	NA
129 (CL6)	0.0 ND	NA	0.0 ND	NA
178 (CL7)	0.0 ND	NA	0.0 ND	NA
183 (CL7)	0.0 ND	NA	0.0 ND	NA
167 (CL6)	0.0 ND	NA	0.0 ND	NA
185 (CL7)	0.0 ND	NA	0.0 ND	NA
174 (CL7)	0.0 ND	NA	0.0 ND	NA
177 (CL7)	0.0 ND	NA	0.0 ND	NA
156/171/202 (CL6/7/8)	0.0 ND	NA	0.0 ND	NA
200 (CL8)	0.0 ND	NA	0.0 ND	NA
172 (CL7)	0.0 ND	NA	0.0 ND	NA
191 (CL7)	0.0 ND	NA	0.0 ND	NA
201 (CL8)	0.0 ND	NA	0.0 ND	NA
196 (CL8)	0.0 ND	NA	0.0 ND	NA
189 (CL7)	0.0 ND	NA	0.0 ND	NA
194 (CL8)	0.0 ND	NA	0.0 ND	NA
205 (CL9)	0.0 ND	NA	0.0 ND	NA
Surrogate Recoveries				
DBOFB%:	73	102	81	80
PCB#103%:	76	102	83	86
PCB#198%:	76	106	82	90

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 32	LAB QA SAMPLE
ID:		STATION 32
LABSAMNO:	C13771	Q9002
SAMPLE TYPE:	SAMP	DUP
COLLECTION DATE:	09/01/93	09/01/93
RECEIPT DATE:	09/26/93	09/26/93
QCBATCH:	M2065	M2065
EXTRACTION DATE:	05/16/94	05/16/94
METHOD:	GCFID	GCFID
ANALYSIS DATE:	06/15/94	06/14/94
METHOD:	GCMS	GCMS
ANALYSIS DATE:	06/01/94	06/01/94
METHOD:	GCECD	GCECD
ANALYSIS DATE:	07/09/94	07/09/94
MATRIX:	SEDIMENTS	SEDIMENTS
SUBMAT:		
WETWT:	20.24	20.47
DRYWT:	17.33	17.49
WTUNITS:	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	85.6%	85.4%
VOL:		
VOLUNITS:	LITERS	LITERS
Lipid Weight		
% LIPIDS:		
Surrogate Recoveries		
ALKANES:		
C12ALKD:	95	90
C20ALKD:	86	85
C24ALKD:	88	86
C30ALKD:	91	83
PAH's:		
NAPHD8:	81	75
ACEND10:	83	77
PHEND10:	86	78
CHRYD12:	80	72
PERYD12:	63	60
PESTICIDES & PCB's:		
DBOFB:	81	80
PCB#103:	83	83
PCB#198:	82	83

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 32	LAB QA SAMPLE
ID:		STATION 32
LABSAMNO:	C13771	Q9002
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL % RPD

UNIT:	ng/g	ng/g	
C10	7 J	4 J	
C11	0 ND	0 ND	
C12	1 J	1 J	
C13	0 ND	0 ND	
C14	0 ND	0 ND	
C15	5 J	4 J	
C16	0 ND	0 ND	
C17	0 ND	0 ND	
PRISTANE	0 ND	0 ND	
C18	0 ND	0 ND	
PHYTANE	0 ND	0 ND	
C19	0 ND	0 ND	
C20	0 ND	0 ND	
C21	0 ND	0 ND	
C22	0 ND	2 J	
C23	0 ND	2 J	
C24	0 ND	4 J	
C25	0 ND	0 ND	
C26	0 ND	0 ND	
C27	4 J	4 J	
C28	0 ND	1 J	
C29	3 J	3 J	
C30	0 ND	0 ND	
C31	0 ND	0 ND	
C32	0 ND	0 ND	
C33	0 ND	0 ND	
C34	0 ND	0 ND	
TOT ALKANES	20	25	19

UNIT:	ug/g	ug/g
UCM	0.2 J	0.4 J

Surrogate Recoveries

C12ALKD:	95	90
C20ALKD:	86	85
C24ALKD:	88	86
C30ALKD:	91	83

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 32	LAB QA SAMPLE
ID:	STATION 32	
LABSAMNO:	C13771	Q9002
UNIT:	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL % RPD
NAPHTHALENE	0.7 J	0.6 J
C1-NAPHTHALENES	0.8 J	0.9 J
C2-NAPHTHALENES	ND	ND
C3-NAPHTHALENES	ND	ND
C4-NAPHTHALENES	ND	ND
BIPHENYL	0.5 J	0.4 J
ACENAPHTHYLENE	0.1 J	0.1 J
ACENAPHTHENE	0.2 J	0.2 J
FLUORENE	0.1 J	0.2 J
C1-FLUORENES	ND	ND
C2-FLUORENES	ND	ND
C3-FLUORENES	ND	ND
PHENANTHRENE	0.3 J	0.3 J
ANTHRACENE	0.1 J	0.2 J
C1-PHEN_ANTHR	ND	ND
C2-PHEN_ANTHR	ND	ND
C3-PHEN_ANTHR	ND	ND
C4-PHEN_ANTHR	ND	ND
DIBENZOTHRIO	0.1 J	0.1 J
C1-DIBEN	ND	ND
C2-DIBEN	ND	ND
C3-DIBEN	ND	ND
FLUORANTHENE	0.1 J	0.2 J
PYRENE	0.2 J	0.1 J
C1-FLUORAN_PYR	ND	ND
BENaANTHRACENE	0.1 J	0.0 J
CHRYSENE	0.0 J	0.1 J
C1-CHRYSENES	ND	ND
C2-CHRYSENES	ND	ND
C3-CHRYSENES	ND	ND
C4-CHRYSENES	ND	ND
BENbFLUORAN	0.1 J	0.1 J
BENkFLUORAN	0.1 J	0.1 J
BENePYRENE	0.1 J	0.0 J
BENaPYRENE	0.2 J	0.0 J
PERYLENE	0.3 J	0.3 J
I123cdPYRENE	0.1 J	0.1 J
DBahANTHRA	0.0 J	0.0 J
BghiPERYLENE	0.0 J	0.0 J
TOTAL PAH's	3.7 J	3.7 J
(w/o PERYLENE)		

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 32	LAB QA SAMPLE
ID:	STATION 32	
LABSAMNO:	C13771	Q9002
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

2-METHYLNAPH	0.5 J	0.6 J
1-METHYLNAPH	0.2 J	0.2 J
2,6-DIMETHNAPH	0.3 J	0.4 J
1,6,7-TRIMETHNAPH	0.1 J	0.6 J
1-METHYLPHEN	0.1 J	0.1 J

Surrogate Recoveries

NAPHD8:	81	75
ACEND10:	83	77
PHEND10:	86	78
CHRYD12:	80	72
PERYD12:	63	60

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 32	LAB QA SAMPLE
ID:	STATION 32	
LABSAMNO:	C13771	Q9002
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD
TOTAL BHCs	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND
TOTAL DDTs	0.0 ND	0.0 ND
TOTAL PCBs	0.4 J	0.4 J
ALPHA-BHC	0.0 ND	0.0 ND
HCb	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.0 ND
GAMMA-BHC	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 32	LAB QA SAMPLE
ID:		STATION 32
LABSAMNO:	C13771	Q9002
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND
138 (CL6)	0.0 ND	0.0 ND
126 (CL5)	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND
170 (CL7)	0.4	0.4
180 (CL7)	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 32	LAB QA SAMPLE
ID:		STATION 32
LABSAMNO:	C13771	Q9002
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

PCB # (CHLORINATION)

70 (CL4)	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND

Surrogate Recoveries

DBOFB%:	81	80
PCB#103%:	83	83
PCB#198%:	82	83

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 54	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 54
LABSAMNO:	Q9084	Q9085	C13781	Q9082
SAMPLE TYPE:	BLANK	LBS	SAMP	MS
COLLECTION DATE:			09/08/93	09/08/93
RECEIPT DATE:			09/26/93	09/26/93
QCBATCH:	M2075	M2075	M2075	M2075
EXTRACTION DATE:	05/26/94	05/26/94	05/26/94	05/26/94
METHOD:	GCFID	GCFID	GCFID	GCFID
ANALYSIS DATE:	06/09/94	06/09/94	06/10/94	06/09/94
METHOD:	GCMS	GCMS	GCMS	GCMS
ANALYSIS DATE:	06/02/94	06/03/94	06/03/94	06/02/94
METHOD:	GCECD	GCECD	GCECD	GCECD
ANALYSIS DATE:	07/10/94	07/10/94	07/10/94	07/10/94
MATRIX:	SEDIMENTS	SEDIMENTS	SEDIMENTS	SEDIMENTS
SUBMAT:				
WETWT:			20.07	20.13
DRYWT:	10.00	10.00	14.86	14.90
WTUNITS:	GRAMS DRY	GRAMS DRY	GRAMS DRY	GRAMS DRY
PCTSOLIDS:			74.0%	74.0%
VOL:				
VOLUNITS:	LITERS	LITERS	LITERS	LITERS
Lipid Weight				
% LIPIDS:				
Surrogate Recoveries				
ALKANES:				
C12ALKD:	75	81	82	82
C20ALKD:	69	84	73	79
C24ALKD:	74	82	77	78
C30ALKD:	73	83	76	81
PAH's:				
NAPHD8:	80	80	81	69
ACEND10:	77	81	78	68
PHEND10:	75	98	80	84
CHRYD12:	73	84	73	80
PERYD12:	23 Q	51	62	64
PESTICIDES & PCB's:				
DBOFB:	100	83	91	105
PCB#103:	98	88	93	107
PCB#198:	105	93	97	115

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 54	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 54
LABSAMNO:	Q9084	Q9085	C13781	Q9082
Alkanes and Isoprenoids	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

UNIT:	ng/g	%	ng/g	%
C10	0 ND	NA	8 J	NA
C11	0 ND	NA	0 ND	NA
C12	0 ND	95	0 ND	73
C13	0 ND	NA	0 ND	NA
C14	0 ND	NA	0 ND	NA
C15	31	105	18	79
C16	0 ND	NA	0 ND	NA
C17	0 ND	108	0 ND	83
PRISTANE	0 ND	106	0 ND	81
C18	0 ND	96	0 ND	74
PHYTANE	0 ND	NA	0 ND	NA
C19	0 ND	NA	4	NA
C20	0 ND	91	3 J	70
C21	0 ND	89	12	68
C22	0 ND	NA	13 J	NA
C23	3 J	NA	38	NA
C24	5 J	96	18	72
C25	5 J	NA	49	NA
C26	4 J	NA	20	NA
C27	3 J	NA	66	NA
C28	0 ND	93	11 J	72
C29	0 ND	NA	46	NA
C30	0 ND	94	0 ND	74
C31	0 ND	NA	30	NA
C32	0 ND	87	0 ND	68
C33	0 ND	NA	0 ND	NA
C34	0 ND	88	0 ND	69
TOT ALKANES	51	NA	334	NA

UNIT:	ug/g	AVG % RECOV	ug/g	AVG % RECOV
UCM	2.6 J	96	0.3 J	74

Surrogate Recoveries

C12ALKD:	75	81	82	82
C20ALKD:	69	84	73	79
C24ALKD:	74	82	77	78
C30ALKD:	73	83	76	81

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE			LAB QA SAMPLE			STATION 54			LAB QA SAMPLE		
ID:	PROC BLANK			SPIKE BLANK						STATION 54		
LABSAMNO:	Q9084			Q9085			C13781			Q9082		
UNIT:	ng/g			%			ng/g			%		
PNA Analyte	Conc	DB	QUAL	Recovery	DB	QUAL	Conc	DB	QUAL	Recovery	DB	QUAL
NAPHTHALENE	1.3	J		98			1.2	J		97		
C1-NAPHTHALENES	1.0	J		NA			2.1	J		NA		
C2-NAPHTHALENES	ND			NA			1.5	J		NA		
C3-NAPHTHALENES	ND			NA			4.3	J		NA		
C4-NAPHTHALENES	ND			NA			ND			NA		
BIPHENYL	0.6	J		93			0.7	J		100		
ACENAPHTHYLENE	0.2	J		86			0.1	J		89		
ACENAPHTHENE	0.7	J		92			0.4	J		98		
FLUORENE	0.4	J		91			0.4	J		97		
C1-FLUORENES	ND			NA			ND			NA		
C2-FLUORENES	ND			NA			ND			NA		
C3-FLUORENES	ND			NA			ND			NA		
PHENANTHRENE	0.3	J		75			0.8	J		78		
ANTHRACENE	0.2	J		66			0.1	J		53		
C1-PHEN_ANTHR	ND			NA			0.9	J		NA		
C2-PHEN_ANTHR	ND			NA			1.1	J		NA		
C3-PHEN_ANTHR	ND			NA			ND			NA		
C4-PHEN_ANTHR	ND			NA			ND			NA		
DIBENZOTHRIO	0.2	J		71			0.2	J		59		
C1-DIBEN	ND			NA			ND			NA		
C2-DIBEN	ND			NA			ND			NA		
C3-DIBEN	ND			NA			ND			NA		
FLUORANTHENE	0.3	J		85			0.5	J		92		
PYRENE	0.2	J		84			0.4	J		89		
C1-FLUORAN_PYR	ND			NA			ND			NA		
BENaANTHRACENE	0.1	J		95			0.1	J		73		
CHRYSENE	0.2	J		92			0.4	J		88		
C1-CHRYSENES	ND			NA			ND			NA		
C2-CHRYSENES	ND			NA			ND			NA		
C3-CHRYSENES	ND			NA			ND			NA		
C4-CHRYSENES	ND			NA			ND			NA		
BENbFLUORAN	0.0	J		87			0.3	J		83		
BENkFLUORAN	0.1	J		87			0.6	J		85		
BENePYRENE	0.0	J		91			0.3	J		87		
BENaPYRENE	0.0	ND		81			0.1	J		73		
PERYLENE	0.1	J		98			2.2	J		77		
I123cdPYRENE	0.1	J		74			0.2	J		63		
DBahANTHRA	0.1	J		72			0.1	J		41		
BghiPERYLENE	0.1	J		78			0.2	J		50		
TOTAL PAH's	6.0	J		AVG % RECOV			16.7	J		AVG % RECOV		
(w/o PERYLENE)				86						80		

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 54	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 54
LABSAMNO:	Q9084	Q9085	C13781	Q9082
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
2-METHYLNAPH	0.6 J	91	1.2 J	84
1-METHYLNAPH	0.4 J	98	0.8 J	95
2,6-DIMETHNAPH	0.4 J	93	0.4 J	96
1,6,7-TRIMETHNAPH	0.4 J	94	0.5 J	84
1-METHYLPHEN	0.3 J	76	0.3 J	78
Surrogate Recoveries				
NAPHD8:	80	80	81	69
ACEND10:	77	81	78	68
PHEND10:	75	98	80	84
CHRYD12:	73	84	73	80
PERYD12:	23 Q	51	62	64

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 54	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 54
LABSAMNO:	Q9084	Q9085	C13781	Q9082
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
TOTAL BHCs	0.0 ND		0.0 ND	
TOT CHLORDANES (ALL)	0.0 ND	AVERAGE %	0.0 ND	AVERAGE %
TOT CHLORDANES (S&T)	0.0 ND	RECOVERY	0.0 ND	RECOVERY
TOTAL DDTs	0.0 ND	104	0.0 ND	105
TOTAL PCBs	0.2 J		0.2 J	
ALPHA-BHC	0.0 ND	93	0.0 ND	99
HCB	0.0 ND	97	0.0 ND	99
BETA-BHC	0.0 ND	80	0.0 ND	82
GAMMA-BHC	0.0 ND	97	0.0 ND	103
DELTA-BHC	0.0 ND	103	0.0 ND	107
HEPTACHLOR	0.0 ND	93	0.0 ND	82
HEPTA-EPOXIDE	0.0 ND	88	0.0 ND	92
OXYCHLORDANE	0.0 ND	116	0.0 ND	114
GAMMA-CHLORDANE	0.0 ND	105	0.0 ND	105
ALPHA-CHLORDANE	0.0 ND	101	0.0 ND	101
TRANS-NONACHLOR	0.0 ND	96	0.0 ND	97
CIS-NONACHLOR	0.0 ND	107	0.0 ND	106
ALDRIN	0.0 ND	92	0.0 ND	95
DIELDRIN	0.0 ND	94	0.0 ND	96
ENDRIN	0.0 ND	99	0.0 ND	105
MIREX	0.0 ND	107	0.0 ND	104
2,4'DDE (O,P'DDE)	0.0 ND	86	0.0 ND	86
4,4'DDE (P,P'DDE)	0.0 ND	90	0.0 ND	93
2,4'DDD (O,P'DDD)	0.0 ND	88	0.0 ND	92
4,4'DDD (P,P'DDD)	0.0 ND	107	0.0 ND	116
2,4'DDT (O,P'DDT)	0.0 ND	112	0.0 ND	102
4,4'DDT (P,P'DDT)	0.0 ND	106	0.0 ND	91

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 54	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 54
LABSAMNO:	Q9084	Q9085	C13781	Q9082
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	106	0.0 ND	106
18 (CL3)	0.0 ND	104	0.0 ND	104
28 (CL3)	0.0 ND	108	0.0 ND	106
44 (CL4)	0.0 ND	112	0.0 ND	112
52 (CL4)	0.0 ND	112	0.0 ND	111
66 (CL4)	0.0 ND	109	0.0 ND	110
101 (CL5)	0.0 ND	111	0.0 ND	109
105 (CL5)	0.0 ND	110	0.0 ND	109
110/77 (CL5/4)	0.0 ND	129 Q	0.0 ND	129 Q
118/108/149 (CL5/5/6)	0.0 ND	116	0.0 ND	119
128 (CL6)	0.0 ND	114	0.0 ND	115
138 (CL6)	0.0 ND	108	0.0 ND	110
126 (CL5)	0.0 ND	125 Q	0.0 ND	124 Q
153 (CL6)	0.0 ND	91	0.0 ND	90
170 (CL7)	0.2 J	111	0.2	107
180 (CL7)	0.0 ND	107	0.0 ND	108
187/182/159 (CL7/7/6)	0.0 ND	114	0.0 ND	113
195 (CL8)	0.0 ND	113	0.0 ND	113
206 (CL9)	0.0 ND	97	0.0 ND	101
209 (CL10)	0.0 ND	114	0.0 ND	114

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	NA	0.0 ND	NA
15 (CL2)	0.0 ND	NA	0.0 ND	NA
24 (CL3)	0.0 ND	NA	0.0 ND	NA
16/32 (CL3)	0.0 ND	NA	0.0 ND	NA
29 (CL3)	0.0 ND	NA	0.0 ND	NA
26 (CL3)	0.0 ND	NA	0.0 ND	NA
25 (CL3)	0.0 ND	NA	0.0 ND	NA
50 (CL4)	0.0 ND	110	0.0 ND	110
33 (CL3)	0.0 ND	NA	0.0 ND	NA
22 (CL3)	0.0 ND	NA	0.0 ND	NA
45 (CL4)	0.0 ND	NA	0.0 ND	NA
46 (CL4)	0.0 ND	NA	0.0 ND	NA
49 (CL4)	0.0 ND	NA	0.0 ND	NA
47/48 (CL4)	0.0 ND	NA	0.0 ND	NA
37/42 (CL4)	0.0 ND	NA	0.0 ND	NA
41/64 (CL4)	0.0 ND	NA	0.0 ND	NA
40 (CL4)	0.0 ND	NA	0.0 ND	NA
74 (CL4)	0.0 ND	NA	0.0 ND	NA

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE	STATION 54	LAB QA SAMPLE
ID:	PROC BLANK	SPIKE BLANK		STATION 54
LABSAMNO:	Q9084	Q9085	CL3781	Q9082
UNIT:	ng/g	%	ng/g	%
Analyte (Cont)	Conc DB QUAL	Recovery DB QUAL	Conc DB QUAL	Recovery DB QUAL
PCB # (CHLORINATION)				
70 (CL4)	0.0 ND	NA	0.0 ND	NA
88 (CL5)	0.0 ND	NA	0.0 ND	NA
60/56 (CL5)	0.0 ND	NA	0.0 ND	NA
92? (CL5)	0.0 ND	NA	0.0 ND	NA
84? (CL5)	0.0 ND	NA	0.0 ND	NA
99 (CL5)	0.0 ND	NA	0.0 ND	NA
83 (CL5)	0.0 ND	NA	0.0 ND	NA
97 (CL5)	0.0 ND	NA	0.0 ND	NA
87 (CL5)	0.0 ND	110	0.0 ND	111
85 (CL5)	0.0 ND	NA	0.0 ND	NA
136 (CL6)	0.0 ND	NA	0.0 ND	NA
82 (CL5)	0.0 ND	NA	0.0 ND	NA
151 (CL6)	0.0 ND	NA	0.0 ND	NA
107/108/144 (CL5/5/6)	0.0 ND	NA	0.0 ND	NA
149 (CL6)	0.0 ND	NA	0.0 ND	NA
188 (CL7)	0.0 ND	114	0.0 ND	111
146 (CL6)	0.0 ND	NA	0.0 ND	NA
141 (CL6)	0.0 ND	NA	0.0 ND	NA
137 (CL6)	0.0 ND	NA	0.0 ND	NA
UNK (CL6)	0.0 ND	NA	0.0 ND	NA
158 (CL7)	0.0 ND	NA	0.0 ND	NA
129 (CL6)	0.0 ND	NA	0.0 ND	NA
178 (CL7)	0.0 ND	NA	0.0 ND	NA
183 (CL7)	0.0 ND	NA	0.0 ND	NA
167 (CL6)	0.0 ND	NA	0.0 ND	NA
185 (CL7)	0.0 ND	NA	0.0 ND	NA
174 (CL7)	0.0 ND	NA	0.0 ND	NA
177 (CL7)	0.0 ND	NA	0.0 ND	NA
156/171/202 (CL6/7/8)	0.0 ND	NA	0.0 ND	NA
200 (CL8)	0.0 ND	NA	0.0 ND	NA
172 (CL7)	0.0 ND	NA	0.0 ND	NA
191 (CL7)	0.0 ND	NA	0.0 ND	NA
201 (CL8)	0.0 ND	NA	0.0 ND	NA
196 (CL8)	0.0 ND	NA	0.0 ND	NA
189 (CL7)	0.0 ND	NA	0.0 ND	NA
194 (CL8)	0.0 ND	NA	0.0 ND	NA
205 (CL9)	0.0 ND	NA	0.0 ND	NA
Surrogate Recoveries				
DBOFB%:	100	83	91	105
PCB#103%:	98	88	93	107
PCB#198%:	105	93	97	115

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	STATION 54	LAB QA SAMPLE
ID:		STATION 54
LABSAMNO:	C13781	Q9083
SAMPLE TYPE:	SAMP	DUP
COLLECTION DATE:	09/08/93	09/08/93
RECEIPT DATE:	09/26/93	09/26/93
QCBATCH:	M2075	M2075
EXTRACTION DATE:	05/26/94	05/26/94
METHOD:	GCFID	GCFID
ANALYSIS DATE:	06/10/94	06/09/94
METHOD:	GCMS	GCMS
ANALYSIS DATE:	06/03/94	06/02/94
METHOD:	GCECD	GCECD
ANALYSIS DATE:	07/10/94	07/10/94
MATRIX:	SEDIMENTS	SEDIMENTS
SUBMAT:		
WETWT:	20.07	20.16
DRYWT:	14.86	14.90
WTUNITS:	GRAMS DRY	GRAMS DRY
PCTSOLIDS:	74.0%	73.9%
VOL:		
VOLUNITS:	LITERS	LITERS
Lipid Weight		
% LIPIDS:		
Surrogate Recoveries		
ALKANES:		
C12ALKD:	82	73
C20ALKD:	73	67
C24ALKD:	77	70
C30ALKD:	76	72
PAH's:		
NAPHD8:	81	86
ACEND10:	78	82
PHEND10:	80	83
CHRYD12:	73	75
PERYD12:	62	65
PESTICIDES & PCB's:		
DBOFB:	91	80
PCB#103:	93	83
PCB#198:	97	85

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 54	LAB QA SAMPLE
ID:		STATION 54
LABSAMNO:	C13781	Q9083
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL % RPD

UNIT:	ng/g	ng/g	
C10	8 J	11 J	
C11	0 ND	0 ND	
C12	0 ND	3 J	
C13	0 ND	0 ND	
C14	0 ND	0 ND	
C15	18	23	22
C16	0 ND	0 ND	
C17	0 ND	0 ND	
PRISTANE	0 ND	6 J	
C18	0 ND	2 J	
PHYTANE	0 ND	0 ND	
C19	4	1 J	
C20	3 J	4 J	
C21	12	13	12
C22	13 J	12 J	
C23	38	37	3
C24	18	18	4
C25	49	47	4
C26	20	17 J	
C27	66	65	2
C28	11 J	11 J	
C29	46	48	4
C30	0 ND	6 J	
C31	30	38	23
C32	0 ND	3 J	
C33	0 ND	11	
C34	0 ND	0 ND	

TOT ALKANES	334	374	11

UNIT:	ug/g	ug/g
UCM	0.3 J	0.0 ND

Surrogate Recoveries

C12ALKD:	82	73
C20ALKD:	73	67
C24ALKD:	77	70
C30ALKD:	76	72

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	STATION 54	LAB QA SAMPLE
ID:	STATION 54	
LABSAMNO:	C13781	Q9083
UNIT:	ng/g	ng/g
PNA Analyte	Conc DB QUAL	Conc DB QUAL % RPD
NAPHTHALENE	1.2 J	1.3 J
C1-NAPHTHALENES	2.1 J	1.6 J
C2-NAPHTHALENES	1.5 J	1.7 J
C3-NAPHTHALENES	4.3 J	ND
C4-NAPHTHALENES	ND	ND
BIPHENYL	0.7 J	0.7 J
ACENAPHTHYLENE	0.1 J	0.2 J
ACENAPHTHENE	0.4 J	0.1 J
FLUORENE	0.4 J	0.3 J
C1-FLUORENES	ND	ND
C2-FLUORENES	ND	ND
C3-FLUORENES	ND	ND
PHENANTHRENE	0.8 J	0.8 J
ANTHRACENE	0.1 J	0.1 J
C1-PHEN_ANTHR	0.9 J	0.9 J
C2-PHEN_ANTHR	1.1 J	0.8 J
C3-PHEN_ANTHR	ND	ND
C4-PHEN_ANTHR	ND	ND
DIBENZOTHRIO	0.2 J	0.2 J
C1-DIBEN	ND	ND
C2-DIBEN	ND	ND
C3-DIBEN	ND	ND
FLUORANTHENE	0.5 J	0.6 J
PYRENE	0.4 J	0.4 J
C1-FLUORAN_PYR	ND	ND
BENaANTHRACENE	0.1 J	0.2 J
CHRYSENE	0.4 J	0.4 J
C1-CHRYSENES	ND	ND
C2-CHRYSENES	ND	ND
C3-CHRYSENES	ND	ND
C4-CHRYSENES	ND	ND
BENbFLUORAN	0.3 J	0.3 J
BENkFLUORAN	0.6 J	0.7 J
BENePYRENE	0.3 J	0.3 J
BENaPYRENE	0.1 J	0.1 J
PERYLENE	2.2 J	2.3 J
I123cdPYRENE	0.2 J	0.2 J
DBahANTHRA	0.1 J	0.1 J
BghiPERYLENE	0.2 J	0.3 J
TOTAL PAH's	16.7 J	12.3 J
(w/o PERYLENE)		

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	STATION 54	LAB QA SAMPLE
ID:		STATION 54
LABSAMNO:	C13781	Q9083
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD
2-METHYLNAPH	1.2 J	0.9 J
1-METHYLNAPH	0.8 J	0.8 J
2,6-DIMETHNAPH	0.4 J	0.4 J
1,6,7-TRIMETHNAPH	0.5 J	0.4 J
1-METHYLPHEN	0.3 J	0.2 J
Surrogate Recoveries		
NAPHD8:	81	86
ACEND10:	78	82
PHEND10:	80	83
CHRYD12:	73	75
PERYD12:	62	65

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	STATION 54	LAB QA SAMPLE
ID:		STATION 54
LABSAMNO:	C13781	Q9083
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

TOTAL BHCs	0.0 ND	0.0 ND
TOT CHLORDANES (ALL)	0.0 ND	0.0 ND
TOT CHLORDANES (S&T)	0.0 ND	0.0 ND
TOTAL DDTs	0.0 ND	0.0 ND
TOTAL PCBs	0.2 J	0.3 J

ALPHA-BHC	0.0 ND	0.0 ND
HCb	0.0 ND	0.0 ND
BETA-BHC	0.0 ND	0.0 ND
GAMMA-BHC	0.0 ND	0.0 ND
DELTA-BHC	0.0 ND	0.0 ND
HEPTACHLOR	0.0 ND	0.0 ND
HEPTA-EPOXIDE	0.0 ND	0.0 ND
OXYCHLORDANE	0.0 ND	0.0 ND
GAMMA-CHLORDANE	0.0 ND	0.0 ND
ALPHA-CHLORDANE	0.0 ND	0.0 ND
TRANS-NONACHLOR	0.0 ND	0.0 ND
CIS-NONACHLOR	0.0 ND	0.0 ND
ALDRIN	0.0 ND	0.0 ND
DIELDRIN	0.0 ND	0.0 ND
ENDRIN	0.0 ND	0.0 ND
MIREX	0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)	0.0 ND	0.0 ND
4,4'DDE (P,P'DDE)	0.0 ND	0.0 ND
2,4'DDD (O,P'DDD)	0.0 ND	0.0 ND
4,4'DDD (P,P'DDD)	0.0 ND	0.0 ND
2,4'DDT (O,P'DDT)	0.0 ND	0.0 ND
4,4'DDT (P,P'DDT)	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	STATION 54	LAB QA SAMPLE
ID:		STATION 54
LABSAMNO:	C13781	Q9083
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)	0.0 ND	0.0 ND
18 (CL3)	0.0 ND	0.0 ND
28 (CL3)	0.0 ND	0.0 ND
44 (CL4)	0.0 ND	0.0 ND
52 (CL4)	0.0 ND	0.0 ND
66 (CL4)	0.0 ND	0.0 ND
101 (CL5)	0.0 ND	0.0 ND
105 (CL5)	0.0 ND	0.0 ND
110/77 (CL5/4)	0.0 ND	0.0 ND
118/108/149 (CL5/5/6)	0.0 ND	0.0 ND
128 (CL6)	0.0 ND	0.0 ND
138 (CL6)	0.0 ND	0.1 J
126 (CL5)	0.0 ND	0.0 ND
153 (CL6)	0.0 ND	0.0 ND
170 (CL7)	0.2	0.2
180 (CL7)	0.0 ND	0.0 ND
187/182/159 (CL7/7/6)	0.0 ND	0.0 ND
195 (CL8)	0.0 ND	0.0 ND
206 (CL9)	0.0 ND	0.0 ND
209 (CL10)	0.0 ND	0.0 ND

5

OTHER PCB CONGENERS

7 (CL2)	0.0 ND	0.0 ND
15 (CL2)	0.0 ND	0.0 ND
24 (CL3)	0.0 ND	0.0 ND
16/32 (CL3)	0.0 ND	0.0 ND
29 (CL3)	0.0 ND	0.0 ND
26 (CL3)	0.0 ND	0.0 ND
25 (CL3)	0.0 ND	0.0 ND
50 (CL4)	0.0 ND	0.0 ND
33 (CL3)	0.0 ND	0.0 ND
22 (CL3)	0.0 ND	0.0 ND
45 (CL4)	0.0 ND	0.0 ND
46 (CL4)	0.0 ND	0.0 ND
49 (CL4)	0.0 ND	0.0 ND
47/48 (CL4)	0.0 ND	0.0 ND
37/42 (CL4)	0.0 ND	0.0 ND
41/64 (CL4)	0.0 ND	0.0 ND
40 (CL4)	0.0 ND	0.0 ND
74 (CL4)	0.0 ND	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	STATION 54	LAB QA SAMPLE
ID:		STATION 54
LABSAMNO:	C13781	Q9083
UNIT:	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL % RPD

PCB # (CHLORINATION)

70 (CL4)	0.0 ND	0.0 ND
88 (CL5)	0.0 ND	0.0 ND
60/56 (CL5)	0.0 ND	0.0 ND
92? (CL5)	0.0 ND	0.0 ND
84? (CL5)	0.0 ND	0.0 ND
99 (CL5)	0.0 ND	0.0 ND
83 (CL5)	0.0 ND	0.0 ND
97 (CL5)	0.0 ND	0.0 ND
87 (CL5)	0.0 ND	0.0 ND
85 (CL5)	0.0 ND	0.0 ND
136 (CL6)	0.0 ND	0.0 ND
82 (CL5)	0.0 ND	0.0 ND
151 (CL6)	0.0 ND	0.0 ND
107/108/144 (CL5/5/6)	0.0 ND	0.0 ND
149 (CL6)	0.0 ND	0.0 ND
188 (CL7)	0.0 ND	0.0 ND
146 (CL6)	0.0 ND	0.0 ND
141 (CL6)	0.0 ND	0.0 ND
137 (CL6)	0.0 ND	0.0 ND
UNK (CL6)	0.0 ND	0.0 ND
158 (CL7)	0.0 ND	0.0 ND
129 (CL6)	0.0 ND	0.0 ND
178 (CL7)	0.0 ND	0.0 ND
183 (CL7)	0.0 ND	0.0 ND
167 (CL6)	0.0 ND	0.0 ND
185 (CL7)	0.0 ND	0.0 ND
174 (CL7)	0.0 ND	0.0 ND
177 (CL7)	0.0 ND	0.0 ND
156/171/202 (CL6/7/8)	0.0 ND	0.0 ND
200 (CL8)	0.0 ND	0.0 ND
172 (CL7)	0.0 ND	0.0 ND
191 (CL7)	0.0 ND	0.0 ND
201 (CL8)	0.0 ND	0.0 ND
196 (CL8)	0.0 ND	0.0 ND
189 (CL7)	0.0 ND	0.0 ND
194 (CL8)	0.0 ND	0.0 ND
205 (CL9)	0.0 ND	0.0 ND

Surrogate Recoveries

DBOFB%:	91	80
PCB#103%:	93	83
PCB#198%:	97	85

SIBERIAN SEDIMENTS - GENERAL INFORMATION - 93-DO-01

INVEST#:	NIST SRM 1941	LAB QA SAMPLE	LAB QA SAMPLE
ID:	CERTIFIED VALUES	SRM 1941	SRM 1941
LABSAMNO:		Q7067	Q7072
SAMPLE TYPE:	SRM	SRM	SRM
COLLECTION DATE:			
RECEIPT DATE:			
QCBATCH:		M748	M749
EXTRACTION DATE:		11/11/93	11/12/93
METHOD:		GCFID	GCFID
ANALYSIS DATE:		01/18/94	05/12/94
METHOD:		GCMS	GCMS
ANALYSIS DATE:		12/17/93	12/07/93
METHOD:		GCECD	GCECD
ANALYSIS DATE:		06/08/94	06/08/94
MATRIX:	SEDIMENT	SEDIMENT	SEDIMENT
SUBMAT:			
WETWT:			
DRYWT:		0.56	0.54
WTUNITS:		GRAMS DRY	GRAMS DRY
PCTSOLIDS:			
VOL:			
VOLUNITS:		LITERS	LITERS
Lipid Weight			
% LIPIDS:			
Surrogate Recoveries			
ALKANES:			
C12ALKD:		181 M	90
C20ALKD:		199 M	68
C24ALKD:		201 M	77
C30ALKD:		118	111
PAH's:			
NAPHD8:		85	72
ACEND10:		107	75
PHEND10:		91	94
CHRYD12:		117	90
PERYD12:		76	85
PESTICIDES & PCB's:			
DBOFB:		42	147 Q
PCB#103:		43	134 Q
PCB#198:		37 Q	156 Q

SIBERIAN SEDIMENTS - ALIPHATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	LAB QA SAMPLE	LAB QA SAMPLE
ID:	SRM 1941	SRM 1941
LABSAMNO:	Q7067	Q7072
Alkanes and Isoprenoids	Conc DB QUAL	Conc DB QUAL

UNIT:	ng/g	ng/g
C10	1162	3670
C11	652	314 J
C12	681	269
C13	516	263 J
C14	583	263 J
C15	930	610
C16	575	518
C17	2383	1880
PRISTANE	1980	1282
C18	504	439
PHYTANE	1485	750
C19	1489	347
C20	808	221
C21	1517	401
C22	632	476
C23	1347	748
C24	1538	673
C25	2499	898
C26	787	652
C27	2072	923
C28	701	402 J
C29	2718	1969
C30	1431	711
C31	980	2373
C32	539	554
C33	464	1088
C34	1469	236

TOT ALKANES	32446	22929

UNIT:	ug/g	ug/g
UCM	2092.1	1799.0

Surrogate Recoveries

C12ALKD:	181 M	90
C20ALKD:	199 M	68
C24ALKD:	201 M	77
C30ALKD:	118	111

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA - 93-DO-01

INVEST#:	NIST SRM 1941		LAB QA SAMPLE		LAB QA SAMPLE
ID:	CERTIFIED VALUES		SRM 1941		SRM 1941
LABSAMNO:			Q7067		Q7072
UNIT:	ng/g		ng/g		ng/g
PNA Analyte	Values	Range	Conc	DB	QUAL
NAPHTHALENE	NC	1322 +/-14	673.3		912.5
C1-NAPHTHALENES			361.6		423.0
C2-NAPHTHALENES			224.8 J		242.4 J
C3-NAPHTHALENES			286.1		213.3
C4-NAPHTHALENES			232.2		127.7 J
BIPHENYL	NC	115 +/-15	77.8 J		92.9 J
ACENAPHTHYLENE	NC	115 +/-10	55.5 J		63.1 J
ACENAPHTHENE	NC	52 +/-2	34.3 J		39.2 J
FLUORENE		1220 +/-240	58.8 J		86.8 J
C1-FLUORENES			86.9 J		91.9 J
C2-FLUORENES			182.5		170.6 J
C3-FLUORENES			226.2		232.8
PHENANTHRENE		577 +/-59	468.2		508.8
ANTHRACENE		202 +/-42	150.8		163.4
C1-PHEN_ANTHR			339.3		399.8
C2-PHEN_ANTHR			335.9		346.5
C3-PHEN_ANTHR			320.4		307.7
C4-PHEN_ANTHR			206.8 J		224.3 J
DIBENZOTHIO			33.9 J		37.8 J
C1-DIBEN			54.5 J		58.6 J
C2-DIBEN			116.2 J		122.7 J
C3-DIBEN			120.9 J		131.6 J
FLUORANTHENE		1220 +/-240	1088.3		1136.9
PYRENE		1080 +/-200	975.3		985.4
C1-FLUORAN_PYR			517.1		436.6
BENaANTHRACENE		550 +/-79	416.9		464.9
CHRYSENE	NC	449	531.4		677.1
C1-CHRYSENES			329.7		354.6
C2-CHRYSENES			181.2 J		236.9 J
C3-CHRYSENES			22.8 J		53.0 J
C4-CHRYSENES			60.9 J		69.3 J
BENbFLUORAN		780 +/-190	483.2		786.2
BENkFLUORAN		444 +/-49	483.2		786.2
BENePYRENE		573	402.5		512.1
BENaPYRENE		670 +/-130	466.2		653.5
PERYLENE		422 +/-33	273.5 J		273.5 J
I123cdPYRENE		569 +/-40	350.3		693.6
DBahANTHRA			80.3 J		138.6
BghiPERYLENE		516 +/-83	399.0		619.2
TOTAL PAH's			11435.1		13601.3
(w/o PERYLENE)					

SIBERIAN SEDIMENTS - AROMATIC HYDROCARBON DATA (CONT) - 93-DO-01

INVEST#:	NIST SRM 1941	LAB QA SAMPLE	LAB QA SAMPLE
ID:	CERTIFIED VALUES	SRM 1941	SRM 1941
LABSAMNO:		Q7067	Q7072
UNIT:	ng/g	ng/g	ng/g
Analyte (Cont)	Conc DB QUAL	Conc DB QUAL	Conc DB QUAL

2-METHYLNAPH	NC	406	+/-36	234.8	276.6
1-METHYLNAPH	NC	229	+/-19	126.8 J	146.5
2,6-DIMETHNAPH	NC	198	+/-23	120.6 J	166.7
1,6,7-TRIMETHNAPH				66.6 J	71.3 J
1-METHYLPHEN	NC	109	+/-6	86.0 J	74.6 J

Surrogate Recoveries

NAPHD8:	85	72
ACEND10:	107	75
PHEND10:	91	94
CHRYD12:	117	90
PERYD12:	76	85

SIBERIAN SEDIMENTS - PESTICIDE DATA - 93-DO-01

INVEST#:	NIST SRM 1941	LAB QA SAMPLE	LAB QA SAMPLE
ID:	CERTIFIED VALUES	SRM 1941	SRM 1941
LABSAMNO:		Q7067	Q7072
UNIT:	ng/g	ng/g	ng/g
Analyte (Cont)	Values	Range	Conc DB QUAL

TOTAL BHCs		2.6 J	0.0 ND
TOT CHLORDANES (ALL)		2.6 J	1.7 J
TOT CHLORDANES (S&T)		1.5 J	1.1 J
TOTAL DDTs		7.9 J	7.0 J
TOTAL PCBs		157.7 J	213.9 J
ALPHA-BHC		0.5 J	0.0 ND
HCB		10.9	11.5
BETA-BHC		0.5 J	0.0 ND
GAMMA-BHC		0.5 J	0.0 ND
DELTA-BHC		1.0 J	0.0 ND
HEPTACHLOR		0.3 J	0.0 ND
HEPTA-EPOXIDE	NC .23 +/- .02	0.7 J	0.4 J
OXYCHLORDANE		0.3 J	0.3 J
GAMMA-CHLORDANE		0.4 J	0.0 ND
ALPHA-CHLORDANE		0.4 J	0.5 J
TRANS-NONACHLOR	NC .97 +/- .03	0.2 J	0.3 J
CIS-NONACHLOR	NC 2.06 +/- .05	0.5 J	0.4 J
ALDRIN		0.0 ND	0.0 ND
DIELDRIN	NC .63 +/- .03	1.5 J	1.5 J
ENDRIN		0.7 J	0.0 ND
MIREX		0.0 ND	0.0 ND
2,4'DDE (O,P'DDE)		0.9 J	0.0 ND
4,4'DDE (P,P'DDE)	NC 9.71 +/- .17	3.5	3.7
2,4'DDD (O,P'DDD)		0.3 J	0.4 J
4,4'DDD (P,P'DDD)	NC 10.3 +/- .1	2.5	2.9
2,4'DDT (O,P'DDT)		0.2 J	0.0 ND
4,4'DDT (P,P'DDT)	NC 1.13 +/- .05	0.4 J	0.0 ND

SIBERIAN SEDIMENTS - PCB DATA - 93-DO-01

INVEST#:	NIST SRM 1941	LAB QA SAMPLE	LAB QA SAMPLE
ID:	CERTIFIED VALUES	SRM 1941	SRM 1941
LABSAMNO:		Q7067	Q7072
UNIT:	ng/g	ng/g	ng/g
Analyte (Cont)	Values Range	Conc DB QUAL	Conc DB QUAL

PCB # (CLORINATION)

NOAA S&T PCBs

8 (CL2)		0.6 J	0.7 J
18 (CL3)	NC 9.9 +/- .25	1.8 J	1.7 J
28 (CL3)	NC 16.1 +/- .4	4.6	5.8
44 (CL4)		4.0	4.4
52 (CL4)	NC 10.4 +/- .4	9.5	9.8
66 (CL4)	NC 22.4 +/- .7	5.3	6.3
101 (CL5)	NC 22.0 +/- .7	9.3	10.7
105 (CL5)	NC 5.76 +/- .23	1.8 J	2.5 J
110/77 (CL5/4)		18.9	30.2
118/108/149 (CL5/5/6)	NC 15.2 +/- .7	5.8	7.6
128 (CL6)		0.2 J	2.4 J
138 (CL6)	NC 24.9 +/- 1.8	8.0	9.6
126 (CL5)		0.0 ND	4.2
153 (CL6)	NC 22.0 +/- 1.4	11.1	12.5
170 (CL7)	NC 7.29 +/- .26	0.0 ND	13.4
180 (CL7)	NC 14.3 +/- .3	5.5	6.6
187/182/159 (CL7/7/6)	NC 2.5 +/- .6	3.6	3.6 J
195 (CL8)	NC 1.51 +/- .1	0.7 J	0.9 J
206 (CL9)	NC 4.81 +/- .15	0.5 J	1.1 J
209 (CL10)	NC 8.35 +/- .21	1.9 J	2.6 J

OTHER PCB CONGENERS

7 (CL2)		0.0 ND	0.0 ND
15 (CL2)		1.4 J	1.7 J
24 (CL3)		0.1 J	0.0 ND
16/32 (CL3)		0.0 ND	0.0 ND
29 (CL3)		0.0 ND	0.0 ND
26 (CL3)		0.3 J	0.0 ND
25 (CL3)		1.1 J	1.5 J
50 (CL4)		1.1 J	3.7 J
33 (CL3)		1.1 J	2.8 J
22 (CL3)		0.7 J	0.0 ND
45 (CL4)		0.1 J	0.0 ND
46 (CL4)		0.2 J	0.0 ND
49 (CL4)		6.7	6.0
47/48 (CL4)		1.7 J	4.9
37/42 (CL4)		2.3 J	3.8
41/64 (CL4)		3.1 J	2.5 J
40 (CL4)		0.2 J	0.6 J
74 (CL4)		4.4	3.8

SIBERIAN SEDIMENTS - PCB DATA (Cont) - 93-DO-01

INVEST#:	NIST SRM 1941	LAB QA SAMPLE	LAB QA SAMPLE
ID:	CERTIFIED VALUES	SRM 1941	SRM 1941
LABSAMNO:		Q7067	Q7072
UNIT:	ng/g	ng/g	ng/g
Analyte (Cont)	Values	Range	Conc DB QUAL
PCB # (CHLORINATION)			
70 (CL4)		10.0	7.2
88 (CL5)		1.2 J	1.3 J
60/56 (CL5)		8.3	5.2
92? (CL5)		0.8 J	1.4 J
84? (CL5)		1.7 J	2.7 J
99 (CL5)		3.4 J	4.1
83 (CL5)		0.5 J	1.1 J
97 (CL5)		1.7 J	2.2 J
87 (CL5)		1.9 J	2.4 J
85 (CL5)		0.6 J	0.9 J
136 (CL6)		0.4 J	0.0 ND
82 (CL5)		1.0 J	1.1 J
151 (CL6)		1.5 J	1.9 J
107/108/144 (CL5/5/6)		0.0 ND	2.5 J
149 (CL6)		4.8	7.0
188 (CL7)		0.0 ND	0.0 ND
146 (CL6)		1.1 J	0.6 J
141 (CL6)		1.9 J	1.8 J
137 (CL6)		0.1 J	0.0 ND
UNK (CL6)		0.3 J	0.0 ND
158 (CL7)		0.2 J	0.0 ND
129 (CL6)		0.3 J	0.0 ND
178 (CL7)		0.3 J	0.2 J
183 (CL7)		0.8 J	0.6 J
167 (CL6)		0.0 ND	0.0 ND
185 (CL7)		0.0 ND	0.0 ND
174 (CL7)		1.3 J	1.6 J
177 (CL7)		0.7 J	1.9 J
156/171/202 (CL6/7/8)		0.5 J	0.0 ND
200 (CL8)		0.2 J	0.0 ND
172 (CL7)		0.8 J	1.0 J
191 (CL7)		1.3 J	1.2 J
201 (CL8)		1.6 J	2.0 J
196 (CL8)		1.6 J	2.1 J
189 (CL7)		0.0 ND	0.0 ND
194 (CL8)		1.0 J	1.2 J
205 (CL9)		0.3 J	0.0 ND
Surrogate Recoveries			
DBOFB%:		42	147 Q
PCB#103%:		43	134 Q
PCB#198%:		37 Q	156 Q

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Coplanar-PCBs
in Tissues
Analytical Sample Data

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11946
CLIENT SAMPLE ID Station 8 Isopods
STRUMENT DATA FILE 50215LCA01-S25
WET WEIGHT 4.04
DRY WEIGHT 1.23
PERCENT SOLIDS 30.45
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/15/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	103	11.4	83.0	
PCB#126	*	30.8	81.4	ND
PCB#169	*	10.0	84.6	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	76	
13C-PCB#126	75	
13C-PCB#169	74	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11948
CLIENT SAMPLE ID Station 16 Isopods
STRUMENT DATA FILE 50215LCA01-S26
WET WEIGHT 5.24
DRY WEIGHT 1.22
PERCENT SOLIDS 23.32
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/15/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	35.2	14.7	83.5	J
PCB#126	12.2	4.83	81.9	J
PCB#169	*	10.3	85.2	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	77	
13C-PCB#126	73	
13C-PCB#169	67	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11950
CLIENT SAMPLE ID Station 17 Amphipods
STRUMENT DATA FILE 50215LCA01-S27
WET WEIGHT 10.00
DRY WEIGHT 2.80
PERCENT SOLIDS 28.02
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/15/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	83.8	7.83	36.4	
PCB#126	64.7	2.28	35.7	
PCB#169	*	3.50	37.1	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	62	
13C-PCB#126	66	
13C-PCB#169	61	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11953
CLIENT SAMPLE ID Station 10 Liver
STRUMENT DATA FILE 50215LCA01-S28
WET WEIGHT 10.49
DRY WEIGHT 3.57
PERCENT SOLIDS 34.00
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	45.5	4.99	28.6	J
PCB#126	14.8	1.70	28.0	
PCB#169	38.7	3.35	29.2	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	68	
13C-PCB#126	72	
13C-PCB#169	75	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11955
CLIENT SAMPLE ID Station 24 Liver
STRUMENT DATA FILE 50215LCA01-S29
WET WEIGHT 10.22
DRY WEIGHT 4.53
PERCENT SOLIDS 44.29
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	89.9	4.59	22.5	
PCB#126	26.4	1.76	22.1	
PCB#169	38.2	2.16	23.0	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	68	
13C-PCB#126	88	
13C-PCB#169	108	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11956
CLIENT SAMPLE ID Station 14 Bivalves
STRUMENT DATA FILE 50215LCA01-S30
WET WEIGHT 4.05
DRY WEIGHT 1.05
PERCENT SOLIDS 25.93
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	33.2	17.3	97.1	J
PCB#126	*	4.81	95.2	ND
PCB#169	*	9.08	99.0	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	62	
13C-PCB#126	71	
13C-PCB#169	71	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11961
CLIENT SAMPLE ID Station 5 Sturgen Liver #3
STRUMENT DATA FILE 50215LCA01-S31
WET WEIGHT 5.59
DRY WEIGHT 2.50
PERCENT SOLIDS 44.71
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	118	4.05	40.8	J
PCB#126	28.1	2.07	40.0	
PCB#169	65.9	5.01	41.6	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	74	
13C-PCB#126	66	
13C-PCB#169	61	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C11962
CLIENT SAMPLE ID Station 21-30 Fish Livers
STRUMENT DATA FILE 50215LCA01-S35
WET WEIGHT 10.09
DRY WEIGHT 2.74
PERCENT SOLIDS 27.19
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	63.1	7.44	37.2	
PCB#126	21.6	2.94	36.5	J
PCB#169	*	4.82	37.9	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	63	
13C-PCB#126	66	
13C-PCB#169	76	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16751
CLIENT SAMPLE ID Station 19 Amphipods
STRUMENT DATA FILE 50215LCA01-S32
WET WEIGHT 10.04
DRY WEIGHT 2.96
PERCENT SOLIDS 29.48
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	112	4.63	34.5	
PCB#126	42.1	2.71	33.8	
PCB#169	22.3	4.80	35.1	J

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	60	
13C-PCB#126	66	
13C-PCB#169	68	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16752
CLIENT SAMPLE ID Station 20 Bivalves
STRUMENT DATA FILE 50215LCA01-S33
WET WEIGHT 5.22
DRY WEIGHT 1.29
PERCENT SOLIDS 24.69
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	*	30.7	79.1	ND
PCB#126	*	4.14	77.6	ND
PCB#169	*	6.25	80.7	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	61	
13C-PCB#126	68	
13C-PCB#169	73	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16753
CLIENT SAMPLE ID Station 54 Worm-Nephthys
STRUMENT DATA FILE 50215LCA01-S34
WET WEIGHT 5.36
DRY WEIGHT 1.37
PERCENT SOLIDS 25.53
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	16.7	11.0	74.6	J
PCB#126	*	4.85	73.1	ND
PCB#169	*	9.05	76.0	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	63	
13C-PCB#126	69	
13C-PCB#169	76	

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Coplanar-PCBs
in Tissues
Quality Control Sample Data

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q9071
CLIENT SAMPLE ID
STRUMENT DATA FILE 50215LCA01-S24
WET WEIGHT
DRY WEIGHT 2.00
PERCENT SOLIDS
CALCULATION BASIS DRY
SAMPLE TYPE BLANK
MATRIX
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/15/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	14.4	8.50	51.0	J
PCB#126	*	3.11	50.0	ND
PCB#169	*	6.11	52.0	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	77	
13C-PCB#126	71	
13C-PCB#169	68	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q9073
CLIENT SAMPLE ID Station 21-30 Fish Livers
STRUMENT DATA FILE 50215LCA01-S37
WET WEIGHT 10.21
DRY WEIGHT 2.67
PERCENT SOLIDS 26.18
CALCULATION BASIS DRY
SAMPLE TYPE DUP
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	86.8	3.13	38.2	
PCB#126	33.8	2.39	37.4	J
PCB#169	15.7	3.23	38.9	J

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	65	
13C-PCB#126	66	
13C-PCB#169	67	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C11962	Q9073
CLIENT SAMPLE ID	Station 21-30 Fish Liv	Station 21-30 Fish Liver
STRUMENT DATA FILE	50215LCA01-S35	50215LCA01-S37
WET WEIGHT	10.09	10.21
DRY WEIGHT	2.74	2.67
PERCENT SOLIDS	27.19	26.18
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	DUP
MATRIX	TISSUE	TISSUE
QC BATCH	DX0170	DX0170
EXTRACTION DATE	11/10/94	11/10/94
ANALYSIS DATE	02/16/95	02/16/95

Compound Name	Conc (pg/g)	Conc (pg/g)	RPD (%)	DB Qual
PCB#77	63.1	86.8	32	Q
PCB#126	21.6	33.8	44	Q
PCB#169	*	15.7	NA	

Internal Standard
% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q9072
CLIENT SAMPLE ID Station 21-30 Fish Livers
STRUMENT DATA FILE 50215LCA01-S36
WET WEIGHT 10.16
DRY WEIGHT 2.72
PERCENT SOLIDS 26.79
CALCULATION BASIS DRY
SAMPLE TYPE MS
MATRIX TISSUE
QC BATCH DX0170
EXTRACTION DATE 11/10/94
ANALYSIS DATE 02/16/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	844	5.08	37.5	
PCB#126	826	2.81	36.7	
PCB#169	815	5.44	38.2	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	61	
13C-PCB#126	67	
13C-PCB#169	63	

CLIENT NAME	Office of	Research
PROJECT NAME	Contamin	Release to Russian Arctic Rivers
PURCHASE ORDER NO.		

LAB SAMPLE ID	C11962	Q9072
CLIENT SAMPLE ID	Station 21	Fish Liv Station 21-30 Fish Liver
STRUMENT DATA FILE	50215LCA01-S35	50215LCA01-S36
WET WEIGHT	10.09	10.16
DRY WEIGHT	2.74	2.72
PERCENT SOLIDS	27.19	26.79
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	TISSUE	TISSUE
QC BATCH	DX0170	DX0170
EXTRACTION DATE	11/10/94	11/10/94
ANALYSIS DATE	02/16/95	02/16/95

Compound Name	Conc (pg/g)	pike Amn (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
PCB#77	63.1	742	844	105	
PCB#126	21.6	734	826	110	
PCB#169	*	760	815	107	

Internal Standard
% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Coplanar-PCBs
in Sediments
Analytical Sample Data

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C12906
CLIENT SAMPLE ID	Station 5 Sediment
STRUMENT DATA FILE	50216LCA01-S22
WET WEIGHT	42.03
DRY WEIGHT	23.62
PERCENT SOLIDS	56.19
CALCULATION BASIS	DRY
SAMPLE TYPE	SAMP
MATRIX	SEDIMENT
QC BATCH	DX0173
EXTRACTION DATE	11/30/94
ANALYSIS DATE	02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.45	0.19	4.32	J
PCB#126	0.36	0.03	4.23	J
PCB#169	*	*	4.40	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	89	
13C-PCB#126	116	
13C-PCB#169	155	Q

Planar PCB Analysis

Page 2

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C12908
CLIENT SAMPLE ID Station 12 Sediment
STRUMENT DATA FILE 50216LCA01-S23
WET WEIGHT 58.54
DRY WEIGHT 26.34
PERCENT SOLIDS 45.00
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	4.54	0.08	3.87	
PCB#126	0.71	0.06	3.80	J
PCB#169	*	0.05	3.95	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	118	
13C-PCB#126	124	
13C-PCB#169	148	Q

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C12909
CLIENT SAMPLE ID Station 14 Sediment
STRUMENT DATA FILE 50216LCA01-S24
WET WEIGHT 47.48
DRY WEIGHT 19.04
PERCENT SOLIDS 40.10
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	5.31	0.20	5.36	J
PCB#126	1.13	0.09	5.25	J
PCB#169	*	0.12	5.46	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	122	
13C-PCB#126	139	Q
13C-PCB#169	167	Q

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C12911
CLIENT SAMPLE ID Station 21 Sediment
STRUMENT DATA FILE 50216LCA01-S25
WET WEIGHT 23.45
DRY WEIGHT 14.95
PERCENT SOLIDS 63.77
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	3.39	0.31	6.82	J
PCB#126	0.79	0.07	6.69	J
PCB#169	*	0.10	6.96	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	174	Q
13C-PCB#126	329	Q
13C-PCB#169	460	Q

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C12912
CLIENT SAMPLE ID Station 58 Sediment
STRUMENT DATA FILE 50216LCA01-S26
WET WEIGHT 41.95
DRY WEIGHT 21.17
PERCENT SOLIDS 50.46
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.33	0.24	4.82	J
PCB#126	0.82	0.08	4.72	J
PCB#169	*	0.08	4.91	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	99	
13C-PCB#126	152	Q
13C-PCB#169	217	Q

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C12915
CLIENT SAMPLE ID Station 61 Sediment
STRUMENT DATA FILE 50216LCA01-S27
WET WEIGHT 40.77
DRY WEIGHT 14.52
PERCENT SOLIDS 35.61
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.82	0.24	7.02	J
PCB#126	0.43	0.14	6.89	J
PCB#169	*	0.12	7.16	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	129	
13C-PCB#126	224	Q
13C-PCB#169	333	Q

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C12917
CLIENT SAMPLE ID Station 20 Sediment
STRUMENT DATA FILE 50216LCA01-S28
WET WEIGHT 43.74
DRY WEIGHT 27.54
PERCENT SOLIDS 62.96
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.03	0.15	3.70	J
PCB#126	0.30	0.05	3.63	J
PCB#169	*	0.09	3.78	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	92	
13C-PCB#126	99	
13C-PCB#169	90	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C13773			
CLIENT SAMPLE ID	Station 38 Sediment			
STRUMENT DATA FILE	50217LCA03-S7			
WET WEIGHT	60.51			
DRY WEIGHT	23.54			
PERCENT SOLIDS	38.90			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/18/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	3.36	1.28	4.33	J
PCB#126	*	1.04	4.25	ND
PCB#169	*	1.23	4.42	ND
Internal Standard % Recoveries	% Recov	DB Qual		
13C-PCB#77	92			
13C-PCB#126	79			
13C-PCB#169	94			

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C13783
CLIENT SAMPLE ID	Station 56 Sediment
STRUMENT DATA FILE	50217LCA03-S8
WET WEIGHT	49.45
DRY WEIGHT	34.17
PERCENT SOLIDS	69.11
CALCULATION BASIS	DRY
SAMPLE TYPE	SAMP
MATRIX	SEDIMENT
QC BATCH	DX0180
EXTRACTION DATE	12/02/94
ANALYSIS DATE	02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	1.72	1.10	2.99	J
PCB#126	*	0.90	2.93	ND
PCB#169	*	1.14	3.04	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	77	
13C-PCB#126	65	
13C-PCB#169	79	

Planar PCB Analysis

Page 3

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C16679			
CLIENT SAMPLE ID	Station 8A Sediment			
STRUMENT DATA FILE	50217LCA03-S5			
WET WEIGHT	57.21			
DRY WEIGHT	36.42			
PERCENT SOLIDS	63.66			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/17/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.39	1.05	2.80	J
PCB#126	*	0.76	2.75	ND
PCB#169	*	1.11	2.86	ND
Internal Standard % Recoveries	% Recov	DB Qual		
13C-PCB#77	83			
13C-PCB#126	65			
13C-PCB#169	84			

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16684
CLIENT SAMPLE ID Station 10 Sediment
STRUMENT DATA FILE 50217LCA03-S9
WET WEIGHT 39.96
DRY WEIGHT 33.71
PERCENT SOLIDS 84.36
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0180
EXTRACTION DATE 12/02/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	1.25	0.90	3.03	J
PCB#126	*	0.75	2.97	ND
PCB#169	*	0.85	3.09	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	96	
13C-PCB#126	77	
13C-PCB#169	96	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16701
CLIENT SAMPLE ID Station 17 Sediment
STRUMENT DATA FILE 50217LCA03-S10
WET WEIGHT 61.61
DRY WEIGHT 20.63
PERCENT SOLIDS 33.48
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0180
EXTRACTION DATE 12/02/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	4.87	1.82	4.94	J
PCB#126	*	1.42	4.85	ND
PCB#169	*	2.01	5.04	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	66	
13C-PCB#126	52	
13C-PCB#169	63	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16703
CLIENT SAMPLE ID Station 18 Sediment
STRUMENT DATA FILE 50217LCA03-S11
WET WEIGHT 41.44
DRY WEIGHT 33.30
PERCENT SOLIDS 80.36
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0180
EXTRACTION DATE 12/02/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	1.48	0.77	3.06	J
PCB#126	*	0.57	3.00	ND
PCB#169	*	0.80	3.12	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	75	
13C-PCB#126	64	
13C-PCB#169	82	

Planar PCB Analysis

Page 7

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16732
CLIENT SAMPLE ID Station 44 Sediment
STRUMENT DATA FILE 50217LCA03-S6
WET WEIGHT 40.70
DRY WEIGHT 18.13
PERCENT SOLIDS 44.54
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0180
EXTRACTION DATE 12/02/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	4.32	2.19	5.63	J
PCB#126	*	1.50	5.52	ND
PCB#169	*	1.83	5.74	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	89	
13C-PCB#126	76	
13C-PCB#169	92	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C13767
CLIENT SAMPLE ID Station 16 Sediment
STRUMENT DATA FILE 50217LCA03-S23
WET WEIGHT 82.19
DRY WEIGHT 24.91
PERCENT SOLIDS 30.31
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	4.37	0.65	4.09	
PCB#126	1.20	0.49	4.01	J
PCB#169	*	0.56	4.18	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	84	
13C-PCB#126	68	
13C-PCB#169	83	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C13770
CLIENT SAMPLE ID Station 29 Sediment
STRUMENT DATA FILE 50217LCA03-S24
WET WEIGHT 48.39
DRY WEIGHT 38.16
PERCENT SOLIDS 78.86
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	1.08	0.39	2.67	J
PCB#126	0.42	0.29	2.62	J
PCB#169	*	0.33	2.73	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	73	
13C-PCB#126	60	
13C-PCB#169	75	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C13781
CLIENT SAMPLE ID Station 54 Sediment
STRUMENT DATA FILE 50217LCA03-S25
WET WEIGHT 67.41
DRY WEIGHT 49.63
PERCENT SOLIDS 73.62
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	0.75	0.34	2.06	J
PCB#126	0.20	0.24	2.01	J
PCB#169	*	0.27	2.10	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	83	
13C-PCB#126	68	
13C-PCB#169	86	

Planar PCB Analysis

Page 4

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16704
CLIENT SAMPLE ID Station 19 Sediment
STRUMENT DATA FILE 50217LCA03-S20
WET WEIGHT 46.10
DRY WEIGHT 22.82
PERCENT SOLIDS 49.50
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.45	0.66	4.47	J
PCB#126	*	0.48	4.38	ND
PCB#169	*	0.54	4.56	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	88	
13C-PCB#126	69	
13C-PCB#169	95	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID C16718
CLIENT SAMPLE ID Station 33 Sediment
STRUMENT DATA FILE 50217LCA03-S21
WET WEIGHT 44.36
DRY WEIGHT 30.24
PERCENT SOLIDS 68.18
CALCULATION BASIS DRY
SAMPLE TYPE SAMP
MATRIX SEDIMENT
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.32	0.71	3.37	J
PCB#126	0.42	0.36	3.31	J
PCB#169	*	0.49	3.44	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	71	
13C-PCB#126	59	
13C-PCB#169	76	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C16747			
CLIENT SAMPLE ID	Station 71A Sediment			
STRUMENT DATA FILE	50217LCA03-S22			
WET WEIGHT	45.89			
DRY WEIGHT	18.58			
PERCENT SOLIDS	40.48			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/18/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	3.87	1.00	5.49	J
PCB#126	*	0.61	5.38	ND
PCB#169	*	0.57	5.60	ND
Internal Standard % Recoveries	% Recov	DB Qual		
13C-PCB#77	87			
13C-PCB#126	74			
13C-PCB#169	93			

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Coplanar-PCBs
in Sediments
Quality Control Sample Data

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q11192
CLIENT SAMPLE ID
STRUMENT DATA FILE 50216LCA01-S21
WET WEIGHT
DRY WEIGHT 20.00
PERCENT SOLIDS
CALCULATION BASIS DRY
SAMPLE TYPE BLANK
MATRIX
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	1.11	0.15	5.10	J
PCB#126	0.41	0.03	5.00	J
PCB#169	*	*	5.20	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	85	
13C-PCB#126	70	
13C-PCB#169	28	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q11196
CLIENT SAMPLE ID Station 21 Sediment
STRUMENT DATA FILE 50216LCA01-S29
WET WEIGHT 20.48
DRY WEIGHT 13.06
PERCENT SOLIDS 63.77
CALCULATION BASIS DRY
SAMPLE TYPE DUP
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	2.60	0.16	7.81	J
PCB#126	0.56	0.16	7.66	J
PCB#169	*	0.09	7.96	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	94	
13C-PCB#126	115	
13C-PCB#169	174	Q

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C12911	Q11196
CLIENT SAMPLE ID	Station 21 Sediment	Station 21 Sediment
STRUMENT DATA FILE	50216LCA01-S25	50216LCA01-S29
WET WEIGHT	23.45	20.48
DRY WEIGHT	14.95	13.06
PERCENT SOLIDS	63.77	63.77
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	DUP
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0173	DX0173
EXTRACTION DATE	11/30/94	11/30/94
ANALYSIS DATE	02/17/95	02/17/95

Compound Name	Conc (pg/g)	Conc (pg/g)	RPD (%)	DB Qual
PCB#77	3.39	2.60	-26	
PCB#126	0.79	0.56	-34	
PCB#169	*	*	NA	

Internal Standard
% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q11195
CLIENT SAMPLE ID
STRUMENT DATA FILE 50216LCA01-S32
WET WEIGHT
DRY WEIGHT 20.00
PERCENT SOLIDS
CALCULATION BASIS DRY
SAMPLE TYPE LBS
MATRIX
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	106	0.29	5.10	
PCB#126	109	0.19	5.00	
PCB#169	99.4	0.34	5.20	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	71	
13C-PCB#126	86	
13C-PCB#169	108	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	Q11192	Q11195
CLIENT SAMPLE ID		
STRUMENT DATA FILE	50216LCA01-S21	50216LCA01-S32
WET WEIGHT		
DRY WEIGHT	20.00	20.00
PERCENT SOLIDS		
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	BLANK	LBS
MATRIX		
QC BATCH	DX0173	DX0173
EXTRACTION DATE	11/30/94	11/30/94
ANALYSIS DATE	02/17/95	02/17/95

Compound Name	Conc (pg/g)	pike Amn (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
PCB#77	1.11	101.00	106	104	
PCB#126	0.41	100.00	109	109	
PCB#169	*	103.50	99.4	96	

Internal Standard
% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q11194
CLIENT SAMPLE ID Station 21 Sediment
STRUMENT DATA FILE 50216LCA01-S31
WET WEIGHT 24.00
DRY WEIGHT 15.30
PERCENT SOLIDS 63.77
CALCULATION BASIS DRY
SAMPLE TYPE MS
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	146	1.28	6.67	
PCB#126	135	0.55	6.54	
PCB#169	116	3.94	6.80	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	80	
13C-PCB#126	97	
13C-PCB#169	127	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C12911	Q11194
CLIENT SAMPLE ID	Station 21 Sediment	Station 21 Sediment
STRUMENT DATA FILE	50216LCA01-S25	50216LCA01-S31
WET WEIGHT	23.45	24.00
DRY WEIGHT	14.95	15.30
PERCENT SOLIDS	63.77	63.77
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0173	DX0173
EXTRACTION DATE	11/30/94	11/30/94
ANALYSIS DATE	02/17/95	02/17/95

Compound Name	Conc (pg/g)	pike Amn (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
PCB#77	3.39	132	146	108	
PCB#126	0.79	131	135	103	
PCB#169	*	135	116	86	

Internal Standard
% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q11193
CLIENT SAMPLE ID 1941A
STRUMENT DATA FILE 50216LCA01-S30
WET WEIGHT 5.09
DRY WEIGHT 5.09
PERCENT SOLIDS 100.00
CALCULATION BASIS DRY
SAMPLE TYPE SRM
MATRIX SEDIMENT
QC BATCH DX0173
EXTRACTION DATE 11/30/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	938	0.86	20.0	
PCB#126	66.6	0.24	19.6	
PCB#169	*	0.36	20.4	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	88	
13C-PCB#126	102	
13C-PCB#169	132	Q

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q10021
CLIENT SAMPLE ID
STRUMENT DATA FILE 50217LCA03-S4
WET WEIGHT
DRY WEIGHT 20.00
PERCENT SOLIDS
CALCULATION BASIS DRY
SAMPLE TYPE BLANK
MATRIX
QC BATCH DX0180
EXTRACTION DATE 12/02/94
ANALYSIS DATE 02/17/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	*	2.73	5.10	ND
PCB#126	*	1.99	5.00	ND
PCB#169	*	2.58	5.20	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	82	
13C-PCB#126	67	
13C-PCB#169	88	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	Q10022			
CLIENT SAMPLE ID	Station 10 Sediment			
STRUMENT DATA FILE	50217LCA03-S12			
WET WEIGHT	39.37			
DRY WEIGHT	33.21			
PERCENT SOLIDS	84.36			
CALCULATION BASIS	DRY			
SAMPLE TYPE	DUP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/18/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	1.52	0.84	3.07	J
PCB#126	*	0.84	3.01	ND
PCB#169	*	1.16	3.13	ND
Internal Standard % Recoveries	% Recov	DB Qual		
13C-PCB#77	77			
13C-PCB#126	63			
13C-PCB#169	78			

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C16684	Q10022
CLIENT SAMPLE ID	Station 10 Sediment	Station 10 Sediment
STRUMENT DATA FILE	50217LCA03-S9	50217LCA03-S12
WET WEIGHT	39.96	39.37
DRY WEIGHT	33.71	33.21
PERCENT SOLIDS	84.36	84.36
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	DUP
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0180	DX0180
EXTRACTION DATE	12/02/94	12/02/94
ANALYSIS DATE	02/18/95	02/18/95

Compound Name	Conc (pg/g)	Conc (pg/g)	RPD (%)	DB Qual
PCB#77	1.25	1.52	19	
PCB#126	*	*	NA	
PCB#169	*	*	NA	

Internal Standard
% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q10025
CLIENT SAMPLE ID
STRUMENT DATA FILE 50217LCA03-S15
WET WEIGHT
DRY WEIGHT 20.00
PERCENT SOLIDS
CALCULATION BASIS DRY
SAMPLE TYPE LBS
MATRIX
QC BATCH DX0180
EXTRACTION DATE 12/02/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	107	1.62	5.10	
PCB#126	109	1.11	5.00	
PCB#169	94.2	2.12	5.20	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	77	
13C-PCB#126	63	
13C-PCB#169	78	

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10021	Q10025
CLIENT SAMPLE ID		
STRUMENT DATA FILE	50217LCA03-S4	50217LCA03-S15
WET WEIGHT		
DRY WEIGHT	20.00	20.00
PERCENT SOLIDS		
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	BLANK	LBS
MATRIX		
QC BATCH	DX0180	DX0180
EXTRACTION DATE	12/02/94	12/02/94
ANALYSIS DATE	02/17/95	02/18/95

Compound Name	Conc (pg/g)	pike Amn (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
PCB#77	*	101	107	106	
PCB#126	*	100	109	109	
PCB#169	*	104	94.2	91	

Internal Standard
 % Recoveries

13C-PCB#77
 13C-PCB#126
 13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	Q10024			
CLIENT SAMPLE ID	Station 10 Sediments			
STRUMENT DATA FILE	50217LCA03-S14			
WET WEIGHT	41.16			
DRY WEIGHT	34.72			
PERCENT SOLIDS	84.36			
CALCULATION BASIS	DRY			
SAMPLE TYPE	MS			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/18/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	72.1	0.77	2.94	
PCB#126	62.4	0.59	2.88	
PCB#169	50.6	1.07	3.00	
Internal Standard % Recoveries	% Recov	DB Qual		
13C-PCB#77	88			
13C-PCB#126	68			
13C-PCB#169	89			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16684	Q10024
CLIENT SAMPLE ID	Station 10 Sediment	Station 10 Sediments
STRUMENT DATA FILE	50217LCA03-S9	50217LCA03-S14
WET WEIGHT	39.96	41.16
DRY WEIGHT	33.71	34.72
PERCENT SOLIDS	84.36	84.36
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0180	DX0180
EXTRACTION DATE	12/02/94	12/02/94
ANALYSIS DATE	02/18/95	02/18/95

Compound Name	Conc (pg/g)	pike Amn (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
PCB#77	1.25	58.2	72.1	122	
PCB#126	*	57.6	62.4	108	
PCB#169	*	59.6	50.6	85	

Internal Standard

% Recoveries

13C-PCB#77
 13C-PCB#126
 13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q10023
CLIENT SAMPLE ID 1941A
STRUMENT DATA FILE 50217LCA03-S13
WET WEIGHT 6.31
DRY WEIGHT 6.31
PERCENT SOLIDS 100.00
CALCULATION BASIS DRY
SAMPLE TYPE SRM
MATRIX SEDIMENT
QC BATCH DX0180
EXTRACTION DATE 12/02/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	999	5.05	16.2	
PCB#126	70.6	3.19	15.8	
PCB#169	*	3.91	16.5	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	77	
13C-PCB#126	60	
13C-PCB#169	84	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q10054
CLIENT SAMPLE ID
STRUMENT DATA FILE 50217LCA03-S19
WET WEIGHT
DRY WEIGHT 20.00
PERCENT SOLIDS
CALCULATION BASIS DRY
SAMPLE TYPE BLANK
MATRIX
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	*	0.88	5.10	ND
PCB#126	*	0.56	5.00	ND
PCB#169	*	0.78	5.20	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	73	
13C-PCB#126	57	
13C-PCB#169	76	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q10055
CLIENT SAMPLE ID Station 33 Sediment
STRUMENT DATA FILE 50217LCA03-S26
WET WEIGHT 61.24
DRY WEIGHT 41.75
PERCENT SOLIDS 68.18
CALCULATION BASIS DRY
SAMPLE TYPE DUP
MATRIX SEDIMENT
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	1.84	0.23	2.44	J
PCB#126	0.73	0.14	2.40	J
PCB#169	*	0.24	2.49	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	87	
13C-PCB#126	74	
13C-PCB#169	93	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	C16718	Q10055
CLIENT SAMPLE ID	Station 33 Sediment	Station 33 Sediment
STRUMENT DATA FILE	50217LCA03-S21	50217LCA03-S26
WET WEIGHT	44.36	61.24
DRY WEIGHT	30.24	41.75
PERCENT SOLIDS	68.18	68.18
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	DUP
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0183	DX0183
EXTRACTION DATE	12/09/94	12/09/94
ANALYSIS DATE	02/18/95	02/18/95

Compound Name	Conc (pg/g)	Conc (pg/g)	RPD (%)	DB Qual
PCB#77	2.32	1.84	-23	
PCB#126	0.42	0.73	54	Q
PCB#169	*	*	NA	

Internal Standard

% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

Planar PCB Analysis

Page 10

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q10058
CLIENT SAMPLE ID
STRUMENT DATA FILE 50217LCA03-S29
WET WEIGHT
DRY WEIGHT 20.00
PERCENT SOLIDS
CALCULATION BASIS DRY
SAMPLE TYPE LBS
MATRIX
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	105	0.71	5.10	
PCB#126	109	0.43	5.00	
PCB#169	95.3	0.73	5.20	

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	78	
13C-PCB#126	63	
13C-PCB#169	81	

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	Q10054	Q10058
CLIENT SAMPLE ID		
STRUMENT DATA FILE	50217LCA03-S19	50217LCA03-S29
WET WEIGHT		
DRY WEIGHT	20.00	20.00
PERCENT SOLIDS		
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	BLANK	LBS
MATRIX		
QC BATCH	DX0183	DX0183
EXTRACTION DATE	12/09/94	12/09/94
ANALYSIS DATE	02/18/95	02/18/95

Compound Name	Conc (pg/g)	pike Amn (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
PCB#77	*	101	105	104	
PCB#126	*	100	109	109	
PCB#169	*	104	95.3	92	

Internal Standard

% Recoveries

13C-PCB#77
13C-PCB#126
13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID	Q10057			
CLIENT SAMPLE ID	Station 33 Sediment			
STRUMENT DATA FILE	50217LCA03-S28			
WET WEIGHT	64.32			
DRY WEIGHT	43.85			
PERCENT SOLIDS	68.18			
CALCULATION BASIS	DRY			
SAMPLE TYPE	MS			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/18/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	47.1	0.34	2.33	
PCB#126	48.5	0.27	2.28	
PCB#169	42.4	0.41	2.37	
Internal Standard % Recoveries	% Recov	DB Qual		
13C-PCB#77	89			
13C-PCB#126	72			
13C-PCB#169	100			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16718	Q10057
CLIENT SAMPLE ID	Station 33 Sediment	Station 33 Sediment
STRUMENT DATA FILE	50217LCA03-S21	50217LCA03-S28
WET WEIGHT	44.36	64.32
DRY WEIGHT	30.24	43.85
PERCENT SOLIDS	68.18	68.18
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0183	DX0183
EXTRACTION DATE	12/09/94	12/09/94
ANALYSIS DATE	02/18/95	02/18/95

Compound Name	Conc (pg/g)	pike Amn (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
PCB#77	2.32	46.1	47.1	97	
PCB#126	0.42	45.6	48.5	105	
PCB#169	*	47.2	42.4	90	

Internal Standard
 % Recoveries

13C-PCB#77
 13C-PCB#126
 13C-PCB#169

CLIENT NAME Office of Naval Research
PROJECT NAME Contaminants Release to Russian Arctic Rivers
PURCHASE ORDER NO.

LAB SAMPLE ID Q10056
CLIENT SAMPLE ID 1941A
STRUMENT DATA FILE 50217LCA03-S27
WET WEIGHT 6.30
DRY WEIGHT 6.30
PERCENT SOLIDS 100.00
CALCULATION BASIS DRY
SAMPLE TYPE SRM
MATRIX SEDIMENT
QC BATCH DX0183
EXTRACTION DATE 12/09/94
ANALYSIS DATE 02/18/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
PCB#77	906	2.06	16.2	
PCB#126	70.7	1.32	15.9	
PCB#169	*	1.57	16.5	ND

Internal Standard % Recoveries	% Recov	DB Qual
13C-PCB#77	89	
13C-PCB#126	78	
13C-PCB#169	101	

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Dioxins and Furans
in Tissues
Analytical Sample Data

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11946			
CLIENT SAMPLE ID	Station 8 Isopods			
INSTRUMENT DATA FILE	50203LCA01-5			
WET WEIGHT	4.04			
DRY WEIGHT	1.23			
PERCENT SOLIDS	30.5			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/03/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	9.46	11.3	8.14	
1,2,3,7,8-PeCDF	10.1	4.67	40.7	J
2,3,4,7,8-PeCDF	4.21	4.99	40.7	J
1,2,3,4,7,8-HxCDF	*	3.61	40.7	ND
1,2,3,6,7,8-HxCDF	4.10	2.94	40.7	J
2,3,4,6,7,8-HxCDF	*	4.00	40.7	ND
1,2,3,7,8,9-HxCDF	4.70	4.73	40.7	J
1,2,3,4,6,7,8-HpCDF	*	4.14	40.7	ND
1,2,3,4,7,8,9-HpCDF	*	5.09	40.7	ND
OCDF	*	14.0	81.4	ND
2,3,7,8-TCDD	*	7.03	8.14	ND
1,2,3,7,8-PeCDD	11.7	9.68	40.7	J
1,2,3,4,7,8-HxCDD	*	4.84	40.7	ND
1,2,3,6,7,8-HxCDD	*	4.86	40.7	ND
1,2,3,7,8,9-HxCDD	*	5.09	40.7	ND
1,2,3,4,6,7,8-HpCDD	*	6.54	40.7	ND
OCDD	*	9.51	81.4	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	78			
13C-1,2,3,7,8-PeCDF	92			
13C-2,3,4,7,8-PeCDF	97			
13C-1,2,3,4,7,8-HxCDF	69			
13C-1,2,3,6,7,8-HxCDF	73			
13C-2,3,4,6,7,8-HxCDF	66			
13C-1,2,3,7,8,9-HxCDF	69			
13C-1,2,3,4,6,7,8-HpCDF	79			
13C-1,2,3,4,7,8,9-HpCDF	103			
13C-2,3,7,8-TCDD	75			
13C-1,2,3,7,8-PeCDD	90			
13C-1,2,3,4,7,8-HxCDD	73			
13C-1,2,3,6,7,8-HxCDD	68			
3C-1,2,3,4,6,7,8-HpCDD	72			
13C-OCDD	79			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11948			
CLIENT SAMPLE ID	Station 16 Isopods			
INSTRUMENT DATA FILE	50203LCA01-6			
WET WEIGHT	5.24			
DRY WEIGHT	1.22			
PERCENT SOLIDS	23.3			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/03/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	7.52	8.19	ND
1,2,3,7,8-PeCDF	7.50	3.76	41.0	J
2,3,4,7,8-PeCDF	*	4.50	41.0	ND
1,2,3,4,7,8-HxCDF	*	3.96	41.0	ND
1,2,3,6,7,8-HxCDF	2.09	3.15	41.0	J
2,3,4,6,7,8-HxCDF	*	4.33	41.0	ND
1,2,3,7,8,9-HxCDF	4.35	5.42	41.0	J
1,2,3,4,6,7,8-HpCDF	*	2.99	41.0	ND
1,2,3,4,7,8,9-HpCDF	*	4.16	41.0	ND
OCDF	*	11.7	81.9	ND
2,3,7,8-TCDD	*	6.75	8.19	ND
1,2,3,7,8-PeCDD	*	8.57	41.0	ND
1,2,3,4,7,8-HxCDD	*	5.55	41.0	ND
1,2,3,6,7,8-HxCDD	*	5.30	41.0	ND
1,2,3,7,8,9-HxCDD	*	5.68	41.0	ND
1,2,3,4,6,7,8-HpCDD	*	8.12	41.0	ND
OCDD	*	6.68	81.9	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	73			
13C-1,2,3,7,8-PeCDF	89			
13C-2,3,4,7,8-PeCDF	87			
13C-1,2,3,4,7,8-HxCDF	67			
13C-1,2,3,6,7,8-HxCDF	69			
13C-2,3,4,6,7,8-HxCDF	67			
13C-1,2,3,7,8,9-HxCDF	69			
13C-1,2,3,4,6,7,8-HpCDF	71			
13C-1,2,3,4,7,8,9-HpCDF	83			
13C-2,3,7,8-TCDD	70			
13C-1,2,3,7,8-PeCDD	76			
13C-1,2,3,4,7,8-HxCDD	70			
13C-1,2,3,6,7,8-HxCDD	63			
3C-1,2,3,4,6,7,8-HpCDD	60			
13C-OCDD	70			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11950			
CLIENT SAMPLE ID	Station 17 Amphipods			
INSTRUMENT DATA FILE	50203LCA01-7			
WET WEIGHT	10.00			
DRY WEIGHT	2.80			
PERCENT SOLIDS	28.0			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/03/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	8.78	4.85	3.57	
1,2,3,7,8-PeCDF	*	2.09	17.8	ND
2,3,4,7,8-PeCDF	*	2.31	17.8	ND
1,2,3,4,7,8-HxCDF	*	1.42	17.8	ND
1,2,3,6,7,8-HxCDF	1.79	1.18	17.8	J
2,3,4,6,7,8-HxCDF	2.09	1.47	17.8	J
1,2,3,7,8,9-HxCDF	2.80	1.71	17.8	J
1,2,3,4,6,7,8-HpCDF	4.03	1.66	17.8	J
1,2,3,4,7,8,9-HpCDF	*	2.19	17.8	ND
OCDF	*	5.55	35.7	ND
2,3,7,8-TCDD	*	2.34	3.57	ND
1,2,3,7,8-PeCDD	*	2.37	17.8	ND
1,2,3,4,7,8-HxCDD	*	2.42	17.8	ND
1,2,3,6,7,8-HxCDD	*	2.29	17.8	ND
1,2,3,7,8,9-HxCDD	*	2.47	17.8	ND
1,2,3,4,6,7,8-HpCDD	4.37	2.29	17.8	J
OCDD	6.76	2.74	35.7	J
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	77			
13C-1,2,3,7,8-PeCDF	94			
13C-2,3,4,7,8-PeCDF	97			
13C-1,2,3,4,7,8-HxCDF	73			
13C-1,2,3,6,7,8-HxCDF	72			
13C-2,3,4,6,7,8-HxCDF	68			
13C-1,2,3,7,8,9-HxCDF	80			
13C-1,2,3,4,6,7,8-HpCDF	75			
13C-1,2,3,4,7,8,9-HpCDF	88			
13C-2,3,7,8-TCDD	80			
13C-1,2,3,7,8-PeCDD	94			
13C-1,2,3,4,7,8-HxCDD	73			
13C-1,2,3,6,7,8-HxCDD	65			
3C-1,2,3,4,6,7,8-HpCDD	62			
13C-OCDD	67			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11953			
CLIENT SAMPLE ID	Station 10 Liver			
INSTRUMENT DATA FILE	50203LCA01-8			
WET WEIGHT	10.49			
DRY WEIGHT	3.57			
PERCENT SOLIDS	34.0			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/03/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	20.2	2.63	2.80	
1,2,3,7,8-PeCDF	2.09	1.32	14.0	J
2,3,4,7,8-PeCDF	*	1.45	14.0	ND
1,2,3,4,7,8-HxCDF	*	1.39	14.0	ND
1,2,3,6,7,8-HxCDF	*	1.20	14.0	ND
2,3,4,6,7,8-HxCDF	*	1.52	14.0	ND
1,2,3,7,8,9-HxCDF	*	1.87	14.0	ND
1,2,3,4,6,7,8-HpCDF	*	1.09	14.0	ND
1,2,3,4,7,8,9-HpCDF	*	1.42	14.0	ND
OCDF	*	3.68	28.0	ND
2,3,7,8-TCDD	*	3.12	2.80	ND
1,2,3,7,8-PeCDD	*	2.28	14.0	ND
1,2,3,4,7,8-HxCDD	*	1.73	14.0	ND
1,2,3,6,7,8-HxCDD	*	1.70	14.0	ND
1,2,3,7,8,9-HxCDD	*	1.80	14.0	ND
1,2,3,4,6,7,8-HpCDD	*	2.01	14.0	ND
OCDD	*	3.04	28.0	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	69			
13C-1,2,3,7,8-PeCDF	79			
13C-2,3,4,7,8-PeCDF	84			
13C-1,2,3,4,7,8-HxCDF	59			
13C-1,2,3,6,7,8-HxCDF	57			
13C-2,3,4,6,7,8-HxCDF	55			
13C-1,2,3,7,8,9-HxCDF	62			
13C-1,2,3,4,6,7,8-HpCDF	67			
13C-1,2,3,4,7,8,9-HpCDF	81			
13C-2,3,7,8-TCDD	68			
13C-1,2,3,7,8-PeCDD	77			
13C-1,2,3,4,7,8-HxCDD	60			
13C-1,2,3,6,7,8-HxCDD	55			
3C-1,2,3,4,6,7,8-HpCDD	57			
13C-OCDD	60			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11955			
CLIENT SAMPLE ID	Station 24 Liver			
INSTRUMENT DATA FILE	50203LCA01-9			
WET WEIGHT	10.22			
DRY WEIGHT	4.53			
PERCENT SOLIDS	44.3			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/03/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	46.9	0.93	2.21	
1,2,3,7,8-PeCDF	3.43	0.45	11.0	J
2,3,4,7,8-PeCDF	2.70	0.46	11.0	J
1,2,3,4,7,8-HxCDF	1.46	0.38	11.0	J
1,2,3,6,7,8-HxCDF	*	0.62	11.0	ND
2,3,4,6,7,8-HxCDF	0.56	0.40	11.0	J
1,2,3,7,8,9-HxCDF	1.59	0.50	11.0	J
1,2,3,4,6,7,8-HpCDF	0.67	0.38	11.0	J
1,2,3,4,7,8,9-HpCDF	*	0.44	11.0	ND
OCDF	*	1.03	22.1	ND
2,3,7,8-TCDD	2.33	0.66	2.21	
1,2,3,7,8-PeCDD	*	0.71	11.0	ND
1,2,3,4,7,8-HxCDD	*	0.58	11.0	ND
1,2,3,6,7,8-HxCDD	*	0.55	11.0	ND
1,2,3,7,8,9-HxCDD	*	0.59	11.0	ND
1,2,3,4,6,7,8-HpCDD	0.80	0.44	11.0	J
OCDD	0.98	0.86	22.1	J
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	81			
13C-1,2,3,7,8-PeCDF	116			
13C-2,3,4,7,8-PeCDF	128			
13C-1,2,3,4,7,8-HxCDF	69			
13C-1,2,3,6,7,8-HxCDF	67			
13C-2,3,4,6,7,8-HxCDF	67			
13C-1,2,3,7,8,9-HxCDF	73			
13C-1,2,3,4,6,7,8-HpCDF	73			
13C-1,2,3,4,7,8,9-HpCDF	100			
13C-2,3,7,8-TCDD	86			
13C-1,2,3,7,8-PeCDD	115			
13C-1,2,3,4,7,8-HxCDD	73			
13C-1,2,3,6,7,8-HxCDD	64			
3C-1,2,3,4,6,7,8-HpCDD	70			
13C-OCDD	77			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11956			
CLIENT SAMPLE ID	Station 14 Bivalves			
INSTRUMENT DATA FILE	50203LCA01-10			
WET WEIGHT	4.05			
DRY WEIGHT	1.05			
PERCENT SOLIDS	25.9			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/03/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	5.51	9.52	ND
1,2,3,7,8-PeCDF	*	2.08	47.6	ND
2,3,4,7,8-PeCDF	*	2.22	47.6	ND
1,2,3,4,7,8-HxCDF	*	1.60	47.6	ND
1,2,3,6,7,8-HxCDF	*	1.39	47.6	ND
2,3,4,6,7,8-HxCDF	*	1.68	47.6	ND
1,2,3,7,8,9-HxCDF	4.86	2.09	47.6	J
1,2,3,4,6,7,8-HpCDF	2.15	2.17	47.6	J
1,2,3,4,7,8,9-HpCDF	*	2.77	47.6	ND
OCDF	*	4.40	95.2	ND
2,3,7,8-TCDD	*	3.11	9.52	ND
1,2,3,7,8-PeCDD	5.94	2.91	47.6	J
1,2,3,4,7,8-HxCDD	*	2.32	47.6	ND
1,2,3,6,7,8-HxCDD	*	2.26	47.6	ND
1,2,3,7,8,9-HxCDD	*	2.42	47.6	ND
1,2,3,4,6,7,8-HpCDD	*	5.00	47.6	ND
OCDD	10.8	5.21	95.2	J
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	82			
13C-1,2,3,7,8-PeCDF	104			
13C-2,3,4,7,8-PeCDF	112			
13C-1,2,3,4,7,8-HxCDF	75			
13C-1,2,3,6,7,8-HxCDF	69			
13C-2,3,4,6,7,8-HxCDF	68			
13C-1,2,3,7,8,9-HxCDF	76			
13C-1,2,3,4,6,7,8-HpCDF	83			
13C-1,2,3,4,7,8,9-HpCDF	104			
13C-2,3,7,8-TCDD	84			
13C-1,2,3,7,8-PeCDD	101			
13C-1,2,3,4,7,8-HxCDD	82			
13C-1,2,3,6,7,8-HxCDD	66			
3C-1,2,3,4,6,7,8-HpCDD	80			
13C-OCDD	78			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11961			
CLIENT SAMPLE ID	Station 5 Sturgen Liver #3			
INSTRUMENT DATA FILE	50203LCA01-11			
WET WEIGHT	5.59			
DRY WEIGHT	2.50			
PERCENT SOLIDS	44.7			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	39.7	0.90	4.00	
1,2,3,7,8-PeCDF	4.91	0.73	20.0	J
2,3,4,7,8-PeCDF	3.04	0.80	20.0	J
1,2,3,4,7,8-HxCDF	*	1.41	20.0	ND
1,2,3,6,7,8-HxCDF	*	1.12	20.0	ND
2,3,4,6,7,8-HxCDF	*	0.51	20.0	ND
1,2,3,7,8,9-HxCDF	*	2.32	20.0	ND
1,2,3,4,6,7,8-HpCDF	*	0.89	20.0	ND
1,2,3,4,7,8,9-HpCDF	*	0.88	20.0	ND
OCDF	*	1.90	40.0	ND
2,3,7,8-TCDD	*	1.10	4.00	ND
1,2,3,7,8-PeCDD	*	1.09	20.0	ND
1,2,3,4,7,8-HxCDD	*	0.65	20.0	ND
1,2,3,6,7,8-HxCDD	*	0.61	20.0	ND
1,2,3,7,8,9-HxCDD	*	0.66	20.0	ND
1,2,3,4,6,7,8-HpCDD	1.26	1.35	20.0	J
OCDD	*	1.64	40.0	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	80			
13C-1,2,3,7,8-PeCDF	103			
13C-2,3,4,7,8-PeCDF	108			
13C-1,2,3,4,7,8-HxCDF	70			
13C-1,2,3,6,7,8-HxCDF	63			
13C-2,3,4,6,7,8-HxCDF	68			
13C-1,2,3,7,8,9-HxCDF	76			
13C-1,2,3,4,6,7,8-HpCDF	72			
13C-1,2,3,4,7,8,9-HpCDF	91			
13C-2,3,7,8-TCDD	80			
13C-1,2,3,7,8-PeCDD	92			
13C-1,2,3,4,7,8-HxCDD	77			
13C-1,2,3,6,7,8-HxCDD	65			
3C-1,2,3,4,6,7,8-HpCDD	66			
13C-OCDD	64			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11962			
CLIENT SAMPLE ID	Station 21-30 93-D0-01			
INSTRUMENT DATA FILE	50203LCA01-15			
WET WEIGHT	10.09			
DRY WEIGHT	2.74			
PERCENT SOLIDS	27.2			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	4.08	0.75	3.65	
1,2,3,7,8-PeCDF	*	0.42	18.2	ND
2,3,4,7,8-PeCDF	0.96	0.47	18.2	J
1,2,3,4,7,8-HxCDF	*	1.66	18.2	ND
1,2,3,6,7,8-HxCDF	0.75	0.24	18.2	J
2,3,4,6,7,8-HxCDF	0.59	0.28	18.2	J
1,2,3,7,8,9-HxCDF	1.98	0.34	18.2	J
1,2,3,4,6,7,8-HpCDF	0.73	0.40	18.2	J
1,2,3,4,7,8,9-HpCDF	*	0.51	18.2	ND
OCDF	*	1.21	36.5	ND
2,3,7,8-TCDD	*	0.49	3.65	ND
1,2,3,7,8-PeCDD	*	2.52	18.2	ND
1,2,3,4,7,8-HxCDD	1.18	0.38	18.2	J
1,2,3,6,7,8-HxCDD	0.35	0.38	18.2	J
1,2,3,7,8,9-HxCDD	*	0.40	18.2	ND
1,2,3,4,6,7,8-HpCDD	1.05	0.58	18.2	J
OCDD	*	1.43	36.5	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	67			
13C-1,2,3,7,8-PeCDF	94			
13C-2,3,4,7,8-PeCDF	95			
13C-1,2,3,4,7,8-HxCDF	9	Q		
13C-1,2,3,6,7,8-HxCDF	54			
13C-2,3,4,6,7,8-HxCDF	59			
13C-1,2,3,7,8,9-HxCDF	65			
13C-1,2,3,4,6,7,8-HpCDF	62			
13C-1,2,3,4,7,8,9-HpCDF	81			
13C-2,3,7,8-TCDD	69			
13C-1,2,3,7,8-PeCDD	84			
13C-1,2,3,4,7,8-HxCDD	70			
13C-1,2,3,6,7,8-HxCDD	55			
3C-1,2,3,4,6,7,8-HpCDD	60			
13C-OCDD	58			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16751			
CLIENT SAMPLE ID	Station 19 Ahipods			
INSTRUMENT DATA FILE	50203LCA01-12			
WET WEIGHT	10.04			
DRY WEIGHT	2.96			
PERCENT SOLIDS	29.5			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	9.28	1.32	3.38	
1,2,3,7,8-PeCDF	*	0.49	16.9	ND
2,3,4,7,8-PeCDF	*	0.54	16.9	ND
1,2,3,4,7,8-HxCDF	*	0.44	16.9	ND
1,2,3,6,7,8-HxCDF	1.02	0.39	16.9	J
2,3,4,6,7,8-HxCDF	*	0.48	16.9	ND
1,2,3,7,8,9-HxCDF	1.48	0.55	16.9	J
1,2,3,4,6,7,8-HpCDF	0.90	0.54	16.9	J
1,2,3,4,7,8,9-HpCDF	*	0.66	16.9	ND
OCDF	*	1.37	33.8	ND
2,3,7,8-TCDD	*	0.67	3.38	ND
1,2,3,7,8-PeCDD	2.17	0.90	16.9	J
1,2,3,4,7,8-HxCDD	*	0.74	16.9	ND
1,2,3,6,7,8-HxCDD	*	0.75	16.9	ND
1,2,3,7,8,9-HxCDD	*	0.79	16.9	ND
1,2,3,4,6,7,8-HpCDD	2.38	0.98	16.9	J
OCDD	3.72	1.43	33.8	J
Internal Standard % Recoveries	% Recov	DB Qual		
13C-2,3,7,8-TCDF	78			
13C-1,2,3,7,8-PeCDF	109			
13C-2,3,4,7,8-PeCDF	110			
13C-1,2,3,4,7,8-HxCDF	81			
13C-1,2,3,6,7,8-HxCDF	71			
13C-2,3,4,6,7,8-HxCDF	70			
13C-1,2,3,7,8,9-HxCDF	84			
13C-1,2,3,4,6,7,8-HpCDF	78			
13C-1,2,3,4,7,8,9-HpCDF	104			
13C-2,3,7,8-TCDD	79			
13C-1,2,3,7,8-PeCDD	99			
13C-1,2,3,4,7,8-HxCDD	86			
13C-1,2,3,6,7,8-HxCDD	68			
3C-1,2,3,4,6,7,8-HpCDD	77			
13C-OCDD	69			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID C16752
 CLIENT SAMPLE ID Station 20 Bivalves
 INSTRUMENT DATA FILE 50203LCA01-13
 WET WEIGHT 5.22
 DRY WEIGHT 1.29
 PERCENT SOLIDS 24.7
 CALCULATION BASIS DRY
 SAMPLE TYPE SAMP
 MATRIX TISSUE
 QC BATCH DX0170
 EXTRACTION DATE 11/10/94
 ANALYSIS DATE 02/04/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	2.27	7.76	ND
1,2,3,7,8-PeCDF	*	1.31	38.8	ND
2,3,4,7,8-PeCDF	*	1.38	38.8	ND
1,2,3,4,7,8-HxCDF	*	1.04	38.8	ND
1,2,3,6,7,8-HxCDF	*	0.93	38.8	ND
2,3,4,6,7,8-HxCDF	1.58	1.16	38.8	J
1,2,3,7,8,9-HxCDF	3.74	1.40	38.8	J
1,2,3,4,6,7,8-HpCDF	1.30	1.47	38.8	J
1,2,3,4,7,8,9-HpCDF	*	1.71	38.8	ND
OCDF	*	3.23	77.6	ND
2,3,7,8-TCDD	*	1.71	7.76	ND
1,2,3,7,8-PeCDD	*	2.90	38.8	ND
1,2,3,4,7,8-HxCDD	*	1.75	38.8	ND
1,2,3,6,7,8-HxCDD	*	1.77	38.8	ND
1,2,3,7,8,9-HxCDD	*	1.86	38.8	ND
1,2,3,4,6,7,8-HpCDD	5.22	1.75	38.8	J
OCDD	24.7	3.34	77.6	J
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	80			
13C-1,2,3,7,8-PeCDF	108			
13C-2,3,4,7,8-PeCDF	112			
13C-1,2,3,4,7,8-HxCDF	78			
13C-1,2,3,6,7,8-HxCDF	71			
13C-2,3,4,6,7,8-HxCDF	68			
13C-1,2,3,7,8,9-HxCDF	78			
13C-1,2,3,4,6,7,8-HpCDF	83			
13C-1,2,3,4,7,8,9-HpCDF	112			
13C-2,3,7,8-TCDD	79			
13C-1,2,3,7,8-PeCDD	98			
13C-1,2,3,4,7,8-HxCDD	79			
13C-1,2,3,6,7,8-HxCDD	64			
3C-1,2,3,4,6,7,8-HpCDD	85			
13C-OCDD	81			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16753			
CLIENT SAMPLE ID	Station 54 Worm-Nephthys			
INSTRUMENT DATA FILE	50203LCA01-14			
WET WEIGHT	5.36			
DRY WEIGHT	1.37			
PERCENT SOLIDS	25.5			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.95	7.31	ND
1,2,3,7,8-PeCDF	*	1.05	36.5	ND
2,3,4,7,8-PeCDF	*	1.18	36.5	ND
1,2,3,4,7,8-HxCDF	*	0.64	36.5	ND
1,2,3,6,7,8-HxCDF	*	1.15	36.5	ND
2,3,4,6,7,8-HxCDF	*	0.74	36.5	ND
1,2,3,7,8,9-HxCDF	*	3.32	36.5	ND
1,2,3,4,6,7,8-HpCDF	1.25	0.98	36.5	J
1,2,3,4,7,8,9-HpCDF	*	1.28	36.5	ND
OCDF	*	1.70	73.1	ND
2,3,7,8-TCDD	*	1.04	7.31	ND
1,2,3,7,8-PeCDD	*	3.07	36.5	ND
1,2,3,4,7,8-HxCDD	*	0.91	36.5	ND
1,2,3,6,7,8-HxCDD	*	0.89	36.5	ND
1,2,3,7,8,9-HxCDD	*	0.95	36.5	ND
1,2,3,4,6,7,8-HpCDD	5.39	1.25	36.5	J
OCDD	23.2	1.95	73.1	J
Internal Standard % Recoveries	% Recov	DB Qual		
13C-2,3,7,8-TCDF	69			
13C-1,2,3,7,8-PeCDF	97			
13C-2,3,4,7,8-PeCDF	96			
13C-1,2,3,4,7,8-HxCDF	67			
13C-1,2,3,6,7,8-HxCDF	62			
13C-2,3,4,6,7,8-HxCDF	60			
13C-1,2,3,7,8,9-HxCDF	67			
13C-1,2,3,4,6,7,8-HpCDF	65			
13C-1,2,3,4,7,8,9-HpCDF	84			
13C-2,3,7,8-TCDD	70			
13C-1,2,3,7,8-PeCDD	84			
13C-1,2,3,4,7,8-HxCDD	69			
13C-1,2,3,6,7,8-HxCDD	57			
13C-1,2,3,4,6,7,8-HpCDD	62			
13C-OCDD	60			

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Dioxins and Furans
in Tissues
Quality Control Sample Data

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID Q9071
 CLIENT SAMPLE ID
 INSTRUMENT DATA FILE 50203LCA01-4
 WET WEIGHT
 DRY WEIGHT 2.00
 PERCENT SOLIDS
 CALCULATION BASIS DRY
 SAMPLE TYPE BLANK
 MATRIX
 QC BATCH DX0170
 EXTRACTION DATE 11/10/94
 ANALYSIS DATE 02/03/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	11.1	5.00	ND
1,2,3,7,8-PeCDF	*	5.59	25.0	ND
2,3,4,7,8-PeCDF	*	6.07	25.0	ND
1,2,3,4,7,8-HxCDF	*	4.51	25.0	ND
1,2,3,6,7,8-HxCDF	*	3.62	25.0	ND
2,3,4,6,7,8-HxCDF	*	4.74	25.0	ND
1,2,3,7,8,9-HxCDF	*	5.69	25.0	ND
1,2,3,4,6,7,8-HpCDF	*	5.31	25.0	ND
1,2,3,4,7,8,9-HpCDF	*	6.54	25.0	ND
OCDF	*	20.2	50.0	ND
2,3,7,8-TCDD	*	10.1	5.00	ND
1,2,3,7,8-PeCDD	*	8.86	25.0	ND
1,2,3,4,7,8-HxCDD	*	7.26	25.0	ND
1,2,3,6,7,8-HxCDD	*	7.12	25.0	ND
1,2,3,7,8,9-HxCDD	*	7.58	25.0	ND
1,2,3,4,6,7,8-HpCDD	*	7.02	25.0	ND
OCDD	*	10.8	50.0	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	83			
13C-1,2,3,7,8-PeCDF	95			
13C-2,3,4,7,8-PeCDF	95			
13C-1,2,3,4,7,8-HxCDF	71			
13C-1,2,3,6,7,8-HxCDF	76			
13C-2,3,4,6,7,8-HxCDF	71			
13C-1,2,3,7,8,9-HxCDF	74			
13C-1,2,3,4,6,7,8-HpCDF	76			
13C-1,2,3,4,7,8,9-HpCDF	97			
13C-2,3,7,8-TCDD	88			
13C-1,2,3,7,8-PeCDD	87			
13C-1,2,3,4,7,8-HxCDD	82			
13C-1,2,3,6,7,8-HxCDD	69			
3C-1,2,3,4,6,7,8-HpCDD	69			
13C-OCDD	77			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q9073			
CLIENT SAMPLE ID	Station 21-30 93-D0-01			
INSTRUMENT DATA FILE	50203LCA01-17			
WET WEIGHT	10.21			
DRY WEIGHT	2.67			
PERCENT SOLIDS	26.2			
CALCULATION BASIS	DRY			
SAMPLE TYPE	DUP			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	6.48	1.41	3.74	
1,2,3,7,8-PeCDF	7.69	0.83	18.7	J
2,3,4,7,8-PeCDF	6.35	0.98	18.7	J
1,2,3,4,7,8-HxCDF	4.08	0.75	18.7	J
1,2,3,6,7,8-HxCDF	*	4.36	18.7	ND
2,3,4,6,7,8-HxCDF	4.26	0.82	18.7	J
1,2,3,7,8,9-HxCDF	4.62	1.01	18.7	J
1,2,3,4,6,7,8-HpCDF	3.30	0.82	18.7	J
1,2,3,4,7,8,9-HpCDF	*	1.10	18.7	ND
OCDF	*	2.51	37.4	ND
2,3,7,8-TCDD	*	1.01	3.74	ND
1,2,3,7,8-PeCDD	8.44	1.01	18.7	J
1,2,3,4,7,8-HxCDD	*	4.47	18.7	ND
1,2,3,6,7,8-HxCDD	*	2.27	18.7	ND
1,2,3,7,8,9-HxCDD	*	3.29	18.7	ND
1,2,3,4,6,7,8-HpCDD	*	4.21	18.7	ND
OCDD	*	3.14	37.4	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	64			
13C-1,2,3,7,8-PeCDF	88			
13C-2,3,4,7,8-PeCDF	83			
13C-1,2,3,4,7,8-HxCDF	64			
13C-1,2,3,6,7,8-HxCDF	56			
13C-2,3,4,6,7,8-HxCDF	58			
13C-1,2,3,7,8,9-HxCDF	62			
13C-1,2,3,4,6,7,8-HpCDF	65			
13C-1,2,3,4,7,8,9-HpCDF	83			
13C-2,3,7,8-TCDD	65			
13C-1,2,3,7,8-PeCDD	82			
13C-1,2,3,4,7,8-HxCDD	70			
13C-1,2,3,6,7,8-HxCDD	54			
3C-1,2,3,4,6,7,8-HpCDD	63			
13C-OCDD	57			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11962	Q9073		
CLIENT SAMPLE ID	Station 21-30 93-D0-01	Station 21-30 93-D0-01		
INSTRUMENT DATA FILE	50203LCA01-15	50203LCA01-17		
WET WEIGHT	10.09	10.21		
DRY WEIGHT	2.74	2.67		
PERCENT SOLIDS	27.2	26.2		
CALCULATION BASIS	DRY	DRY		
SAMPLE TYPE	SAMP	DUP		
MATRIX	TISSUE	TISSUE		
QC BATCH	DX0170	DX0170		
EXTRACTION DATE	11/10/94	11/10/94		
ANALYSIS DATE	02/04/95	02/04/95		
Compound Name	Conc (pg/g)	Conc (pg/g)	RPD (%)	DB Qual
2,3,7,8-TCDF	4.08	6.48	45	
1,2,3,7,8-PeCDF	*	7.69		
2,3,4,7,8-PeCDF	0.96	6.35	147	Q
1,2,3,4,7,8-HxCDF	*	4.08		
1,2,3,6,7,8-HxCDF	0.75	*		
2,3,4,6,7,8-HxCDF	0.59	4.26	151	Q
1,2,3,7,8,9-HxCDF	1.98	4.62	80	Q
1,2,3,4,6,7,8-HpCDF	0.73	3.30	128	Q
1,2,3,4,7,8,9-HpCDF	*	*		
OCDF	*	*		
2,3,7,8-TCDD	*	*		
1,2,3,7,8-PeCDD	*	8.44		
1,2,3,4,7,8-HxCDD	1.18	*		
1,2,3,6,7,8-HxCDD	0.35	*		
1,2,3,7,8,9-HxCDD	*	*		
1,2,3,4,6,7,8-HpCDD	1.05	*		
OCDD	*	*		
Internal Standard				
% Recoveries				
13C-2,3,7,8-TCDF				
13C-1,2,3,7,8-PeCDF				
13C-2,3,4,7,8-PeCDF				
13C-1,2,3,4,7,8-HxCDF				
13C-1,2,3,6,7,8-HxCDF				
13C-2,3,4,6,7,8-HxCDF				
13C-1,2,3,7,8,9-HxCDF				
13C-1,2,3,4,6,7,8-HpCDF				
13C-1,2,3,4,7,8,9-HpCDF				
13C-2,3,7,8-TCDD				
13C-1,2,3,7,8-PeCDD				
13C-1,2,3,4,7,8-HxCDD				
13C-1,2,3,6,7,8-HxCDD				
13C-1,2,3,4,6,7,8-HpCDD				
13C-OCDD				

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q9072			
CLIENT SAMPLE ID	Station 21-30 93-D0-01			
INSTRUMENT DATA FILE	50203LCA01-16			
WET WEIGHT	10.16			
DRY WEIGHT	2.72			
PERCENT SOLIDS	26.8			
CALCULATION BASIS	DRY			
SAMPLE TYPE	MS			
MATRIX	TISSUE			
QC BATCH	DX0170			
EXTRACTION DATE	11/10/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	428	1.17	3.67	
1,2,3,7,8-PeCDF	1832	1.16	18.4	
2,3,4,7,8-PeCDF	2145	1.32	18.4	
1,2,3,4,7,8-HxCDF	1890	0.91	18.4	
1,2,3,6,7,8-HxCDF	1835	0.81	18.4	
2,3,4,6,7,8-HxCDF	1925	0.97	18.4	
1,2,3,7,8,9-HxCDF	1802	1.17	18.4	
1,2,3,4,6,7,8-HpCDF	1885	0.85	18.4	
1,2,3,4,7,8,9-HpCDF	1817	1.17	18.4	
OCDF	3907	2.58	36.7	
2,3,7,8-TCDD	288	1.20	3.67	
1,2,3,7,8-PeCDD	1784	1.59	18.4	
1,2,3,4,7,8-HxCDD	1700	1.17	18.4	
1,2,3,6,7,8-HxCDD	1760	1.13	18.4	
1,2,3,7,8,9-HxCDD	1865	1.21	18.4	
1,2,3,4,6,7,8-HpCDD	1765	1.16	18.4	
OCDD	3070	2.70	36.7	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	69			
13C-1,2,3,7,8-PeCDF	101			
13C-2,3,4,7,8-PeCDF	99			
13C-1,2,3,4,7,8-HxCDF	70			
13C-1,2,3,6,7,8-HxCDF	61			
13C-2,3,4,6,7,8-HxCDF	63			
13C-1,2,3,7,8,9-HxCDF	70			
13C-1,2,3,4,6,7,8-HpCDF	65			
13C-1,2,3,4,7,8,9-HpCDF	84			
13C-2,3,7,8-TCDD	72			
13C-1,2,3,7,8-PeCDD	90			
13C-1,2,3,4,7,8-HxCDD	75			
13C-1,2,3,6,7,8-HxCDD	60			
3C-1,2,3,4,6,7,8-HpCDD	62			
13C-OCDD	62			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C11962	Q9072
CLIENT SAMPLE ID	Station 21-30 93-D0-01	Station 21-30 93-D0-01
INSTRUMENT DATA FILE	50203LCA01-15	50203LCA01-16
WET WEIGHT	10.09	10.16
DRY WEIGHT	2.74	2.72
PERCENT SOLIDS	27.2	26.8
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	TISSUE	TISSUE
QC BATCH	DX0170	DX0170
EXTRACTION DATE	11/10/94	11/10/94
ANALYSIS DATE	02/04/95	02/04/95

Compound Name	Conc (pg/g)	Spike Amnt (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
2,3,7,8-TCDF	4.08	294	428	144	Q
1,2,3,7,8-PeCDF	*	1469	1832	125	
2,3,4,7,8-PeCDF	0.96	1469	2145	146	Q
1,2,3,4,7,8-HxCDF	*	1469	1890	129	
1,2,3,6,7,8-HxCDF	0.75	1469	1835	125	
2,3,4,6,7,8-HxCDF	0.59	1469	1925	131	Q
1,2,3,7,8,9-HxCDF	1.98	1469	1802	123	
1,2,3,4,6,7,8-HpCDF	0.73	1469	1885	128	
1,2,3,4,7,8,9-HpCDF	*	1469	1817	124	
OCDF	*	2938	3907	133	Q
2,3,7,8-TCDD	*	294	288	98	
1,2,3,7,8-PeCDD	*	1469	1784	121	
1,2,3,4,7,8-HxCDD	1.18	1469	1700	116	
1,2,3,6,7,8-HxCDD	0.35	1469	1760	120	
1,2,3,7,8,9-HxCDD	*	1469	1865	127	
1,2,3,4,6,7,8-HpCDD	1.05	1469	1765	120	
OCDD	*	2938	3070	104	

Internal Standard
% Recoveries
13C-2,3,7,8-TCDF
13C-1,2,3,7,8-PeCDF
13C-2,3,4,7,8-PeCDF
13C-1,2,3,4,7,8-HxCDF
13C-1,2,3,6,7,8-HxCDF
13C-2,3,4,6,7,8-HxCDF
13C-1,2,3,7,8,9-HxCDF
13C-1,2,3,4,6,7,8-HpCDF
13C-1,2,3,4,7,8,9-HpCDF
13C-2,3,7,8-TCDD
13C-1,2,3,7,8-PeCDD
13C-1,2,3,4,7,8-HxCDD
13C-1,2,3,6,7,8-HxCDD
13C-1,2,3,4,6,7,8-HpCDD
13C-OCDD

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Dioxins and Furans
in Sediments
Analytical Sample Data

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12906			
CLIENT SAMPLE ID	Station 5 Sediments			
INSTRUMENT DATA FILE	50203LCA01-22			
WET WEIGHT	42.03			
DRY WEIGHT	23.62			
PERCENT SOLIDS	56.2			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.38	0.33	0.42	J
1,2,3,7,8-PeCDF	*	0.43	2.12	ND
2,3,4,7,8-PeCDF	*	0.50	2.12	ND
1,2,3,4,7,8-HxCDF	0.26	0.03	2.12	J
1,2,3,6,7,8-HxCDF	0.32	0.03	2.12	J
2,3,4,6,7,8-HxCDF	0.39	0.04	2.12	J
1,2,3,7,8,9-HxCDF	0.36	0.04	2.12	J
1,2,3,4,6,7,8-HpCDF	0.55	0.03	2.12	J
1,2,3,4,7,8,9-HpCDF	0.06	0.04	2.12	J
OCDF	0.10	0.05	4.23	J
2,3,7,8-TCDD	*	0.03	0.42	ND
1,2,3,7,8-PeCDD	*	0.36	2.12	ND
1,2,3,4,7,8-HxCDD	*	0.47	2.12	ND
1,2,3,6,7,8-HxCDD	*	0.27	2.12	ND
1,2,3,7,8,9-HxCDD	*	0.25	2.12	ND
1,2,3,4,6,7,8-HpCDD	1.27	0.04	2.12	J
OCDD	4.36	0.05	4.23	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	90			
13C-1,2,3,7,8-PeCDF	32			
13C-2,3,4,7,8-PeCDF	21	Q		
13C-1,2,3,4,7,8-HxCDF	92			
13C-1,2,3,6,7,8-HxCDF	77			
13C-2,3,4,6,7,8-HxCDF	76			
13C-1,2,3,7,8,9-HxCDF	86			
13C-1,2,3,4,6,7,8-HpCDF	92			
13C-1,2,3,4,7,8,9-HpCDF	124			
13C-2,3,7,8-TCDD	98			
13C-1,2,3,7,8-PeCDD	17	Q		
13C-1,2,3,4,7,8-HxCDD	90			
13C-1,2,3,6,7,8-HxCDD	77			
3C-1,2,3,4,6,7,8-HpCDD	91			
13C-OCDD	109			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12908			
CLIENT SAMPLE ID	Station 12 Sediments			
INSTRUMENT DATA FILE	50203LCA01-23			
WET WEIGHT	58.54			
DRY WEIGHT	26.34			
PERCENT SOLIDS	45.0			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.43	0.07	0.38	
1,2,3,7,8-PeCDF	*	0.07	1.90	ND
2,3,4,7,8-PeCDF	*	0.55	1.90	ND
1,2,3,4,7,8-HxCDF	0.21	0.03	1.90	J
1,2,3,6,7,8-HxCDF	0.25	0.03	1.90	J
2,3,4,6,7,8-HxCDF	0.25	0.04	1.90	J
1,2,3,7,8,9-HxCDF	0.30	0.05	1.90	J
1,2,3,4,6,7,8-HpCDF	0.62	0.02	1.90	J
1,2,3,4,7,8,9-HpCDF	0.05	0.03	1.90	J
OCDF	0.66	0.04	3.80	J
2,3,7,8-TCDD	*	0.06	0.38	ND
1,2,3,7,8-PeCDD	*	0.77	1.90	ND
1,2,3,4,7,8-HxCDD	*	0.50	1.90	ND
1,2,3,6,7,8-HxCDD	0.23	0.02	1.90	J
1,2,3,7,8,9-HxCDD	0.21	0.02	1.90	J
1,2,3,4,6,7,8-HpCDD	1.80	0.02	1.90	J
OCDD	7.96	0.12	3.80	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	88			
13C-1,2,3,7,8-PeCDF	24	Q		
13C-2,3,4,7,8-PeCDF	4	Q		
13C-1,2,3,4,7,8-HxCDF	84			
13C-1,2,3,6,7,8-HxCDF	68			
13C-2,3,4,6,7,8-HxCDF	63			
13C-1,2,3,7,8,9-HxCDF	76			
13C-1,2,3,4,6,7,8-HpCDF	80			
13C-1,2,3,4,7,8,9-HpCDF	112			
13C-2,3,7,8-TCDD	94			
13C-1,2,3,7,8-PeCDD	5	Q		
13C-1,2,3,4,7,8-HxCDD	88			
13C-1,2,3,6,7,8-HxCDD	73			
3C-1,2,3,4,6,7,8-HpCDD	105			
13C-OCDD	91			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12909			
CLIENT SAMPLE ID	Station 14 Sediments			
INSTRUMENT DATA FILE	50203LCA01-24			
WET WEIGHT	47.48			
DRY WEIGHT	19.04			
PERCENT SOLIDS	40.1			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.69	0.05	0.53	
1,2,3,7,8-PeCDF	*	0.95	2.63	ND
2,3,4,7,8-PeCDF	*	1.84	2.63	ND
1,2,3,4,7,8-HxCDF	*	0.67	2.63	ND
1,2,3,6,7,8-HxCDF	0.71	0.09	2.63	J
2,3,4,6,7,8-HxCDF	0.82	0.10	2.63	J
1,2,3,7,8,9-HxCDF	0.54	0.11	2.63	J
1,2,3,4,6,7,8-HpCDF	1.47	0.02	2.63	J
1,2,3,4,7,8,9-HpCDF	0.18	0.03	2.63	J
OCDF	1.02	0.04	5.25	J
2,3,7,8-TCDD	*	0.11	0.53	ND
1,2,3,7,8-PeCDD	*	1.08	2.63	ND
1,2,3,4,7,8-HxCDD	*	0.59	2.63	ND
1,2,3,6,7,8-HxCDD	*	0.37	2.63	ND
1,2,3,7,8,9-HxCDD	*	0.36	2.63	ND
1,2,3,4,6,7,8-HpCDD	2.90	0.02	2.63	
OCDD	12.6	0.12	5.25	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	99			
13C-1,2,3,7,8-PeCDF	13	Q		
13C-2,3,4,7,8-PeCDF	3	Q		
13C-1,2,3,4,7,8-HxCDF	90			
13C-1,2,3,6,7,8-HxCDF	68			
13C-2,3,4,6,7,8-HxCDF	76			
13C-1,2,3,7,8,9-HxCDF	93			
13C-1,2,3,4,6,7,8-HpCDF	97			
13C-1,2,3,4,7,8,9-HpCDF	125			
13C-2,3,7,8-TCDD	102			
13C-1,2,3,7,8-PeCDD	6	Q		
13C-1,2,3,4,7,8-HxCDD	93			
13C-1,2,3,6,7,8-HxCDD	77			
3C-1,2,3,4,6,7,8-HpCDD	92			
13C-OCDD	101			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12911			
CLIENT SAMPLE ID	Station 21 Sediments			
INSTRUMENT DATA FILE	50203LCA01-25			
WET WEIGHT	23.45			
DRY WEIGHT	14.95			
PERCENT SOLIDS	63.8			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.44	0.09	0.67	J
1,2,3,7,8-PeCDF	*	0.40	3.34	ND
2,3,4,7,8-PeCDF	*	1.74	3.34	ND
1,2,3,4,7,8-HxCDF	0.48	0.06	3.34	J
1,2,3,6,7,8-HxCDF	0.70	0.06	3.34	J
2,3,4,6,7,8-HxCDF	*	1.43	3.34	ND
1,2,3,7,8,9-HxCDF	0.69	0.09	3.34	J
1,2,3,4,6,7,8-HpCDF	1.04	0.04	3.34	J
1,2,3,4,7,8,9-HpCDF	*	0.15	3.34	ND
OCDF	0.27	0.06	6.69	J
2,3,7,8-TCDD	*	0.15	0.67	ND
1,2,3,7,8-PeCDD	*	*	3.34	ND
1,2,3,4,7,8-HxCDD	0.69	0.14	3.34	J
1,2,3,6,7,8-HxCDD	0.55	0.13	3.34	J
1,2,3,7,8,9-HxCDD	*	0.48	3.34	ND
1,2,3,4,6,7,8-HpCDD	6.29	0.05	3.34	
OCDD	39.5	0.23	6.69	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	120			
13C-1,2,3,7,8-PeCDF	15	Q		
13C-2,3,4,7,8-PeCDF	6	Q		
13C-1,2,3,4,7,8-HxCDF	106			
13C-1,2,3,6,7,8-HxCDF	79			
13C-2,3,4,6,7,8-HxCDF	85			
13C-1,2,3,7,8,9-HxCDF	99			
13C-1,2,3,4,6,7,8-HpCDF	102			
13C-1,2,3,4,7,8,9-HpCDF	138			
13C-2,3,7,8-TCDD	124			
13C-1,2,3,7,8-PeCDD	5	Q		
13C-1,2,3,4,7,8-HxCDD	102			
13C-1,2,3,6,7,8-HxCDD	84			
3C-1,2,3,4,6,7,8-HpCDD	104			
13C-OCDD	115			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12912			
CLIENT SAMPLE ID	Station 58 Sediments			
INSTRUMENT DATA FILE	50203LCA01-26			
WET WEIGHT	41.95			
DRY WEIGHT	21.17			
PERCENT SOLIDS	50.5			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.29	0.47	ND
1,2,3,7,8-PeCDF	*	0.41	2.36	ND
2,3,4,7,8-PeCDF	*	1.32	2.36	ND
1,2,3,4,7,8-HxCDF	0.69	0.05	2.36	J
1,2,3,6,7,8-HxCDF	0.80	0.05	2.36	J
2,3,4,6,7,8-HxCDF	*	1.52	2.36	ND
1,2,3,7,8,9-HxCDF	0.58	0.07	2.36	J
1,2,3,4,6,7,8-HpCDF	1.40	0.03	2.36	J
1,2,3,4,7,8,9-HpCDF	0.19	0.04	2.36	J
OCDF	0.64	0.04	4.72	J
2,3,7,8-TCDD	*	0.07	0.47	ND
1,2,3,7,8-PeCDD	*	3.49	2.36	ND
1,2,3,4,7,8-HxCDD	0.94	0.07	2.36	J
1,2,3,6,7,8-HxCDD	*	1.13	2.36	ND
1,2,3,7,8,9-HxCDD	1.80	0.08	2.36	J
1,2,3,4,6,7,8-HpCDD	22.7	0.04	2.36	
OCDD	383	0.10	4.72	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	102			
13C-1,2,3,7,8-PeCDF	9	Q		
13C-2,3,4,7,8-PeCDF	4	Q		
13C-1,2,3,4,7,8-HxCDF	96			
13C-1,2,3,6,7,8-HxCDF	74			
13C-2,3,4,6,7,8-HxCDF	77			
13C-1,2,3,7,8,9-HxCDF	92			
13C-1,2,3,4,6,7,8-HpCDF	101			
13C-1,2,3,4,7,8,9-HpCDF	135			
13C-2,3,7,8-TCDD	106			
13C-1,2,3,7,8-PeCDD	3	Q		
13C-1,2,3,4,7,8-HxCDD	101			
13C-1,2,3,6,7,8-HxCDD	73			
3C-1,2,3,4,6,7,8-HpCDD	103			
13C-OCDD	122			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12915			
CLIENT SAMPLE ID	Station 61 Sediments			
INSTRUMENT DATA FILE	50203LCA01-27			
WET WEIGHT	40.77			
DRY WEIGHT	14.52			
PERCENT SOLIDS	35.6			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.32	0.69	ND
1,2,3,7,8-PeCDF	*	0.91	3.44	ND
2,3,4,7,8-PeCDF	*	3.04	3.44	ND
1,2,3,4,7,8-HxCDF	0.32	0.07	3.44	J
1,2,3,6,7,8-HxCDF	*	0.42	3.44	ND
2,3,4,6,7,8-HxCDF	0.34	0.08	3.44	J
1,2,3,7,8,9-HxCDF	*	0.53	3.44	ND
1,2,3,4,6,7,8-HpCDF	0.65	0.09	3.44	J
1,2,3,4,7,8,9-HpCDF	*	0.13	3.44	ND
OCDF	0.53	0.17	6.89	J
2,3,7,8-TCDD	*	0.21	0.69	ND
1,2,3,7,8-PeCDD	*	1.99	3.44	ND
1,2,3,4,7,8-HxCDD	1.01	0.14	3.44	J
1,2,3,6,7,8-HxCDD	0.75	0.12	3.44	J
1,2,3,7,8,9-HxCDD	1.19	0.14	3.44	J
1,2,3,4,6,7,8-HpCDD	12.5	0.11	3.44	
OCDD	84.1	0.41	6.89	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	100			
13C-1,2,3,7,8-PeCDF	11	Q		
13C-2,3,4,7,8-PeCDF	4	Q		
13C-1,2,3,4,7,8-HxCDF	94			
13C-1,2,3,6,7,8-HxCDF	75			
13C-2,3,4,6,7,8-HxCDF	73			
13C-1,2,3,7,8,9-HxCDF	89			
13C-1,2,3,4,6,7,8-HpCDF	102			
13C-1,2,3,4,7,8,9-HpCDF	127			
13C-2,3,7,8-TCDD	112			
13C-1,2,3,7,8-PeCDD	9	Q		
13C-1,2,3,4,7,8-HxCDD	105			
13C-1,2,3,6,7,8-HxCDD	83			
3C-1,2,3,4,6,7,8-HpCDD	97			
13C-OCDD	102			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12917			
CLIENT SAMPLE ID	Station 20 Sediments			
INSTRUMENT DATA FILE	50203LCA01-28			
WET WEIGHT	43.74			
DRY WEIGHT	27.54			
PERCENT SOLIDS	63.0			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.45	0.36	ND
1,2,3,7,8-PeCDF	*	0.50	1.82	ND
2,3,4,7,8-PeCDF	*	2.41	1.82	ND
1,2,3,4,7,8-HxCDF	0.16	0.02	1.82	J
1,2,3,6,7,8-HxCDF	0.26	0.02	1.82	J
2,3,4,6,7,8-HxCDF	0.25	0.02	1.82	J
1,2,3,7,8,9-HxCDF	0.30	0.02	1.82	J
1,2,3,4,6,7,8-HpCDF	0.45	0.03	1.82	J
1,2,3,4,7,8,9-HpCDF	*	0.08	1.82	ND
OCDF	*	0.29	3.63	ND
2,3,7,8-TCDD	*	0.05	0.36	ND
1,2,3,7,8-PeCDD	*	0.96	1.82	ND
1,2,3,4,7,8-HxCDD	0.40	0.04	1.82	J
1,2,3,6,7,8-HxCDD	0.41	0.04	1.82	J
1,2,3,7,8,9-HxCDD	0.51	0.04	1.82	J
1,2,3,4,6,7,8-HpCDD	5.23	0.04	1.82	
OCDD	37.2	0.06	3.63	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	103			
13C-1,2,3,7,8-PeCDF	7	Q		
13C-2,3,4,7,8-PeCDF	2	Q		
13C-1,2,3,4,7,8-HxCDF	86			
13C-1,2,3,6,7,8-HxCDF	73			
13C-2,3,4,6,7,8-HxCDF	75			
13C-1,2,3,7,8,9-HxCDF	97			
13C-1,2,3,4,6,7,8-HpCDF	85			
13C-1,2,3,4,7,8,9-HpCDF	117			
13C-2,3,7,8-TCDD	109			
13C-1,2,3,7,8-PeCDD	3	Q		
13C-1,2,3,4,7,8-HxCDD	95			
13C-1,2,3,6,7,8-HxCDD	69			
3C-1,2,3,4,6,7,8-HpCDD	84			
13C-OCDD	88			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C13773			
CLIENT SAMPLE ID	Station 38 Sediments			
INSTRUMENT DATA FILE	50208LCA01-S9			
WET WEIGHT	60.51			
DRY WEIGHT	23.54			
PERCENT SOLIDS	38.9			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.83	0.41	0.42	
1,2,3,7,8-PeCDF	*	0.18	2.12	ND
2,3,4,7,8-PeCDF	*	0.17	2.12	ND
1,2,3,4,7,8-HxCDF	*	0.26	2.12	ND
1,2,3,6,7,8-HxCDF	*	0.31	2.12	ND
2,3,4,6,7,8-HxCDF	*	0.41	2.12	ND
1,2,3,7,8,9-HxCDF	*	0.36	2.12	ND
1,2,3,4,6,7,8-HpCDF	0.55	0.33	2.12	J
1,2,3,4,7,8,9-HpCDF	*	0.43	2.12	ND
OCDF	*	0.71	4.25	ND
2,3,7,8-TCDD	*	0.22	0.42	ND
1,2,3,7,8-PeCDD	*	0.31	2.12	ND
1,2,3,4,7,8-HxCDD	0.69	0.24	2.12	J
1,2,3,6,7,8-HxCDD	*	0.57	2.12	ND
1,2,3,7,8,9-HxCDD	0.66	0.25	2.12	J
1,2,3,4,6,7,8-HpCDD	6.60	0.35	2.12	
OCDD	50.3	0.61	4.25	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	65			
13C-1,2,3,7,8-PeCDF	62			
13C-2,3,4,7,8-PeCDF	72			
13C-1,2,3,4,7,8-HxCDF	74			
13C-1,2,3,6,7,8-HxCDF	58			
13C-2,3,4,6,7,8-HxCDF	61			
13C-1,2,3,7,8,9-HxCDF	67			
13C-1,2,3,4,6,7,8-HpCDF	68			
13C-1,2,3,4,7,8,9-HpCDF	90			
13C-2,3,7,8-TCDD	87			
13C-1,2,3,7,8-PeCDD	73			
13C-1,2,3,4,7,8-HxCDD	90			
13C-1,2,3,6,7,8-HxCDD	73			
3C-1,2,3,4,6,7,8-HpCDD	80			
13C-OCDD	79			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C13783			
CLIENT SAMPLE ID	Station 56 Sediments			
INSTRUMENT DATA FILE	50208LCA01-S10			
WET WEIGHT	49.45			
DRY WEIGHT	34.17			
PERCENT SOLIDS	69.1			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.20	0.28	0.29	J
1,2,3,7,8-PeCDF	*	0.14	1.46	ND
2,3,4,7,8-PeCDF	*	0.14	1.46	ND
1,2,3,4,7,8-HxCDF	*	0.29	1.46	ND
1,2,3,6,7,8-HxCDF	0.31	0.13	1.46	J
2,3,4,6,7,8-HxCDF	*	0.38	1.46	ND
1,2,3,7,8,9-HxCDF	0.31	0.17	1.46	J
1,2,3,4,6,7,8-HpCDF	0.63	0.20	1.46	J
1,2,3,4,7,8,9-HpCDF	*	0.24	1.46	ND
OCDF	*	0.35	2.93	ND
2,3,7,8-TCDD	*	0.11	0.29	ND
1,2,3,7,8-PeCDD	0.86	0.18	1.46	J
1,2,3,4,7,8-HxCDD	*	0.57	1.46	ND
1,2,3,6,7,8-HxCDD	*	0.43	1.46	ND
1,2,3,7,8,9-HxCDD	*	0.47	1.46	ND
1,2,3,4,6,7,8-HpCDD	4.39	0.23	1.46	
OCDD	29.5	0.35	2.93	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	53			
13C-1,2,3,7,8-PeCDF	50			
13C-2,3,4,7,8-PeCDF	58			
13C-1,2,3,4,7,8-HxCDF	62			
13C-1,2,3,6,7,8-HxCDF	47			
13C-2,3,4,6,7,8-HxCDF	47			
13C-1,2,3,7,8,9-HxCDF	59			
13C-1,2,3,4,6,7,8-HpCDF	51			
13C-1,2,3,4,7,8,9-HpCDF	72			
13C-2,3,7,8-TCDD	72			
13C-1,2,3,7,8-PeCDD	59			
13C-1,2,3,4,7,8-HxCDD	72			
13C-1,2,3,6,7,8-HxCDD	55			
3C-1,2,3,4,6,7,8-HpCDD	63			
13C-OCDD	64			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16679			
CLIENT SAMPLE ID	Station 8A Sediments			
INSTRUMENT DATA FILE	50208LCA01-S7			
WET WEIGHT	57.21			
DRY WEIGHT	36.42			
PERCENT SOLIDS	63.7			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.60	0.27	ND
1,2,3,7,8-PeCDF	*	0.21	1.37	ND
2,3,4,7,8-PeCDF	*	0.24	1.37	ND
1,2,3,4,7,8-HxCDF	*	0.27	1.37	ND
1,2,3,6,7,8-HxCDF	*	0.28	1.37	ND
2,3,4,6,7,8-HxCDF	*	0.33	1.37	ND
1,2,3,7,8,9-HxCDF	*	0.42	1.37	ND
1,2,3,4,6,7,8-HpCDF	*	0.35	1.37	ND
1,2,3,4,7,8,9-HpCDF	*	0.47	1.37	ND
OCDF	*	0.68	2.75	ND
2,3,7,8-TCDD	*	0.28	0.27	ND
1,2,3,7,8-PeCDD	*	0.49	1.37	ND
1,2,3,4,7,8-HxCDD	*	0.44	1.37	ND
1,2,3,6,7,8-HxCDD	*	0.44	1.37	ND
1,2,3,7,8,9-HxCDD	*	0.47	1.37	ND
1,2,3,4,6,7,8-HpCDD	1.21	0.45	1.37	J
OCDD	3.13	0.64	2.75	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	59			
13C-1,2,3,7,8-PeCDF	58			
13C-2,3,4,7,8-PeCDF	56			
13C-1,2,3,4,7,8-HxCDF	64			
13C-1,2,3,6,7,8-HxCDF	53			
13C-2,3,4,6,7,8-HxCDF	52			
13C-1,2,3,7,8,9-HxCDF	57			
13C-1,2,3,4,6,7,8-HpCDF	54			
13C-1,2,3,4,7,8,9-HpCDF	71			
13C-2,3,7,8-TCDD	78			
13C-1,2,3,7,8-PeCDD	57			
13C-1,2,3,4,7,8-HxCDD	81			
13C-1,2,3,6,7,8-HxCDD	61			
3C-1,2,3,4,6,7,8-HpCDD	62			
13C-OCDD	85			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16684			
CLIENT SAMPLE ID	Station 10 Sediments			
INSTRUMENT DATA FILE	50208LCA01-S11			
WET WEIGHT	39.96			
DRY WEIGHT	33.71			
PERCENT SOLIDS	84.4			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.18	0.30	ND
1,2,3,7,8-PeCDF	*	0.08	1.48	ND
2,3,4,7,8-PeCDF	*	0.07	1.48	ND
1,2,3,4,7,8-HxCDF	*	0.07	1.48	ND
1,2,3,6,7,8-HxCDF	*	0.12	1.48	ND
2,3,4,6,7,8-HxCDF	*	0.14	1.48	ND
1,2,3,7,8,9-HxCDF	0.19	0.09	1.48	J
1,2,3,4,6,7,8-HpCDF	0.19	0.15	1.48	J
1,2,3,4,7,8,9-HpCDF	*	0.18	1.48	ND
OCDF	*	0.22	2.97	ND
2,3,7,8-TCDD	*	0.12	0.30	ND
1,2,3,7,8-PeCDD	*	0.55	1.48	ND
1,2,3,4,7,8-HxCDD	*	0.37	1.48	ND
1,2,3,6,7,8-HxCDD	*	0.10	1.48	ND
1,2,3,7,8,9-HxCDD	*	0.11	1.48	ND
1,2,3,4,6,7,8-HpCDD	0.24	0.14	1.48	J
OCDD	0.74	0.19	2.97	J
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	55			
13C-1,2,3,7,8-PeCDF	54			
13C-2,3,4,7,8-PeCDF	64			
13C-1,2,3,4,7,8-HxCDF	64			
13C-1,2,3,6,7,8-HxCDF	49			
13C-2,3,4,6,7,8-HxCDF	51			
13C-1,2,3,7,8,9-HxCDF	60			
13C-1,2,3,4,6,7,8-HpCDF	52			
13C-1,2,3,4,7,8,9-HpCDF	78			
13C-2,3,7,8-TCDD	78			
13C-1,2,3,7,8-PeCDD	66			
13C-1,2,3,4,7,8-HxCDD	78			
13C-1,2,3,6,7,8-HxCDD	59			
3C-1,2,3,4,6,7,8-HpCDD	68			
13C-OCDD	71			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16701			
CLIENT SAMPLE ID	Station 17 Sediments			
INSTRUMENT DATA FILE	50208LCA01-S12			
WET WEIGHT	61.61			
DRY WEIGHT	20.63			
PERCENT SOLIDS	33.5			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.36	0.09	0.48	J
1,2,3,7,8-PeCDF	*	0.16	2.42	ND
2,3,4,7,8-PeCDF	*	0.17	2.42	ND
1,2,3,4,7,8-HxCDF	*	0.21	2.42	ND
1,2,3,6,7,8-HxCDF	0.27	0.14	2.42	J
2,3,4,6,7,8-HxCDF	*	0.29	2.42	ND
1,2,3,7,8,9-HxCDF	0.44	0.19	2.42	J
1,2,3,4,6,7,8-HpCDF	0.61	0.15	2.42	J
1,2,3,4,7,8,9-HpCDF	*	0.20	2.42	ND
OCDF	0.47	0.27	4.85	J
2,3,7,8-TCDD	*	0.12	0.48	ND
1,2,3,7,8-PeCDD	1.49	0.17	2.42	J
1,2,3,4,7,8-HxCDD	0.75	0.13	2.42	J
1,2,3,6,7,8-HxCDD	*	0.58	2.42	ND
1,2,3,7,8,9-HxCDD	*	0.79	2.42	ND
1,2,3,4,6,7,8-HpCDD	5.76	0.15	2.42	
OCDD	39.4	0.24	4.85	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	58			
13C-1,2,3,7,8-PeCDF	46			
13C-2,3,4,7,8-PeCDF	46			
13C-1,2,3,4,7,8-HxCDF	62			
13C-1,2,3,6,7,8-HxCDF	49			
13C-2,3,4,6,7,8-HxCDF	50			
13C-1,2,3,7,8,9-HxCDF	58			
13C-1,2,3,4,6,7,8-HpCDF	53			
13C-1,2,3,4,7,8,9-HpCDF	71			
13C-2,3,7,8-TCDD	68			
13C-1,2,3,7,8-PeCDD	50			
13C-1,2,3,4,7,8-HxCDD	78			
13C-1,2,3,6,7,8-HxCDD	55			
3C-1,2,3,4,6,7,8-HpCDD	67			
13C-OCDD	70			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16703			
CLIENT SAMPLE ID	Station 18 Sediments			
INSTRUMENT DATA FILE	50208LCA01-S13			
WET WEIGHT	41.44			
DRY WEIGHT	33.30			
PERCENT SOLIDS	80.4			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.13	0.30	ND
1,2,3,7,8-PeCDF	*	0.07	1.50	ND
2,3,4,7,8-PeCDF	*	0.06	1.50	ND
1,2,3,4,7,8-HxCDF	*	0.10	1.50	ND
1,2,3,6,7,8-HxCDF	0.10	0.05	1.50	J
2,3,4,6,7,8-HxCDF	0.13	0.06	1.50	J
1,2,3,7,8,9-HxCDF	0.19	0.07	1.50	J
1,2,3,4,6,7,8-HpCDF	*	0.20	1.50	ND
1,2,3,4,7,8,9-HpCDF	*	0.07	1.50	ND
OCDF	*	0.17	3.00	ND
2,3,7,8-TCDD	*	0.05	0.30	ND
1,2,3,7,8-PeCDD	*	0.41	1.50	ND
1,2,3,4,7,8-HxCDD	0.29	0.08	1.50	J
1,2,3,6,7,8-HxCDD	0.13	0.08	1.50	J
1,2,3,7,8,9-HxCDD	*	0.08	1.50	ND
1,2,3,4,6,7,8-HpCDD	0.54	0.09	1.50	J
OCDD	2.56	0.18	3.00	J
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	60			
13C-1,2,3,7,8-PeCDF	41			
13C-2,3,4,7,8-PeCDF	49			
13C-1,2,3,4,7,8-HxCDF	69			
13C-1,2,3,6,7,8-HxCDF	54			
13C-2,3,4,6,7,8-HxCDF	54			
13C-1,2,3,7,8,9-HxCDF	65			
13C-1,2,3,4,6,7,8-HpCDF	54			
13C-1,2,3,4,7,8,9-HpCDF	81			
13C-2,3,7,8-TCDD	75			
13C-1,2,3,7,8-PeCDD	51			
13C-1,2,3,4,7,8-HxCDD	84			
13C-1,2,3,6,7,8-HxCDD	65			
3C-1,2,3,4,6,7,8-HpCDD	72			
13C-OCDD	69			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16732			
CLIENT SAMPLE ID	Station 44 Sediments			
INSTRUMENT DATA FILE	50208LCA01-S8			
WET WEIGHT	40.70			
DRY WEIGHT	18.13			
PERCENT SOLIDS	44.5			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.81	0.55	ND
1,2,3,7,8-PeCDF	*	0.47	2.76	ND
2,3,4,7,8-PeCDF	*	0.42	2.76	ND
1,2,3,4,7,8-HxCDF	*	0.43	2.76	ND
1,2,3,6,7,8-HxCDF	*	0.42	2.76	ND
2,3,4,6,7,8-HxCDF	*	0.55	2.76	ND
1,2,3,7,8,9-HxCDF	*	0.63	2.76	ND
1,2,3,4,6,7,8-HpCDF	*	0.43	2.76	ND
1,2,3,4,7,8,9-HpCDF	*	0.51	2.76	ND
OCDF	*	1.14	5.52	ND
2,3,7,8-TCDD	*	0.34	0.55	ND
1,2,3,7,8-PeCDD	*	0.55	2.76	ND
1,2,3,4,7,8-HxCDD	*	0.65	2.76	ND
1,2,3,6,7,8-HxCDD	*	0.67	2.76	ND
1,2,3,7,8,9-HxCDD	*	0.70	2.76	ND
1,2,3,4,6,7,8-HpCDD	2.46	0.60	2.76	J
OCDD	13.6	0.89	5.52	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	61			
13C-1,2,3,7,8-PeCDF	63			
13C-2,3,4,7,8-PeCDF	76			
13C-1,2,3,4,7,8-HxCDF	74			
13C-1,2,3,6,7,8-HxCDF	58			
13C-2,3,4,6,7,8-HxCDF	57			
13C-1,2,3,7,8,9-HxCDF	67			
13C-1,2,3,4,6,7,8-HpCDF	58			
13C-1,2,3,4,7,8,9-HpCDF	86			
13C-2,3,7,8-TCDD	84			
13C-1,2,3,7,8-PeCDD	77			
13C-1,2,3,4,7,8-HxCDD	86			
13C-1,2,3,6,7,8-HxCDD	65			
3C-1,2,3,4,6,7,8-HpCDD	80			
13C-OCDD	79			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C13767			
CLIENT SAMPLE ID	Station 16 Sediment			
INSTRUMENT DATA FILE	50205PGA02-S7			
WET WEIGHT	82.19			
DRY WEIGHT	24.91			
PERCENT SOLIDS	30.3			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/06/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	0.57	0.27	0.40	
1,2,3,7,8-PeCDF	*	0.32	2.01	ND
2,3,4,7,8-PeCDF	*	0.28	2.01	ND
1,2,3,4,7,8-HxCDF	0.32	0.32	2.01	J
1,2,3,6,7,8-HxCDF	0.30	0.30	2.01	J
2,3,4,6,7,8-HxCDF	*	0.39	2.01	ND
1,2,3,7,8,9-HxCDF	*	0.39	2.01	ND
1,2,3,4,6,7,8-HpCDF	1.08	0.35	2.01	J
1,2,3,4,7,8,9-HpCDF	*	0.44	2.01	ND
OCDF	1.18	0.83	4.01	J
2,3,7,8-TCDD	*	0.22	0.40	ND
1,2,3,7,8-PeCDD	0.98	0.38	2.01	J
1,2,3,4,7,8-HxCDD	*	0.88	2.01	ND
1,2,3,6,7,8-HxCDD	*	0.48	2.01	ND
1,2,3,7,8,9-HxCDD	0.64	0.32	2.01	J
1,2,3,4,6,7,8-HpCDD	5.19	0.47	2.01	
OCDD	34.0	0.39	4.01	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	57			
13C-1,2,3,7,8-PeCDF	51			
13C-2,3,4,7,8-PeCDF	61			
13C-1,2,3,4,7,8-HxCDF	58			
13C-1,2,3,6,7,8-HxCDF	47			
13C-2,3,4,6,7,8-HxCDF	49			
13C-1,2,3,7,8,9-HxCDF	62			
13C-1,2,3,4,6,7,8-HpCDF	55			
13C-1,2,3,4,7,8,9-HpCDF	72			
13C-2,3,7,8-TCDD	74			
13C-1,2,3,7,8-PeCDD	69			
13C-1,2,3,4,7,8-HxCDD	73			
13C-1,2,3,6,7,8-HxCDD	58			
3C-1,2,3,4,6,7,8-HpCDD	68			
13C-OCDD	84			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C13770			
CLIENT SAMPLE ID	Station 29 Sediment			
INSTRUMENT DATA FILE	50205PGA02-S8			
WET WEIGHT	48.39			
DRY WEIGHT	38.16			
PERCENT SOLIDS	78.9			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/06/95			
	Conc	EDL	LMCL	DBQual
Compound Name	(pg/g)	(pg/g)	(pg/g)	
2,3,7,8-TCDF	*	0.25	0.26	ND
1,2,3,7,8-PeCDF	*	0.24	1.31	ND
2,3,4,7,8-PeCDF	*	0.13	1.31	ND
1,2,3,4,7,8-HxCDF	*	0.28	1.31	ND
1,2,3,6,7,8-HxCDF	0.25	0.12	1.31	J
2,3,4,6,7,8-HxCDF	*	0.30	1.31	ND
1,2,3,7,8,9-HxCDF	*	0.26	1.31	ND
1,2,3,4,6,7,8-HpCDF	0.46	0.17	1.31	J
1,2,3,4,7,8,9-HpCDF	*	0.18	1.31	ND
OCDF	*	0.44	2.62	ND
2,3,7,8-TCDD	*	0.11	0.26	ND
1,2,3,7,8-PeCDD	*	0.19	1.31	ND
1,2,3,4,7,8-HxCDD	*	0.17	1.31	ND
1,2,3,6,7,8-HxCDD	*	0.17	1.31	ND
1,2,3,7,8,9-HxCDD	*	0.18	1.31	ND
1,2,3,4,6,7,8-HpCDD	0.78	0.16	1.31	J
OCDD	2.73	0.26	2.62	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	55			
13C-1,2,3,7,8-PeCDF	51			
13C-2,3,4,7,8-PeCDF	62			
13C-1,2,3,4,7,8-HxCDF	57			
13C-1,2,3,6,7,8-HxCDF	47			
13C-2,3,4,6,7,8-HxCDF	49			
13C-1,2,3,7,8,9-HxCDF	57			
13C-1,2,3,4,6,7,8-HpCDF	51			
13C-1,2,3,4,7,8,9-HpCDF	77			
13C-2,3,7,8-TCDD	73			
13C-1,2,3,7,8-PeCDD	70			
13C-1,2,3,4,7,8-HxCDD	72			
13C-1,2,3,6,7,8-HxCDD	57			
3C-1,2,3,4,6,7,8-HpCDD	71			
13C-OCDD	82			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C13781			
CLIENT SAMPLE ID	Station 54 Sediment			
INSTRUMENT DATA FILE	50205PGA02-S9			
WET WEIGHT	67.41			
DRY WEIGHT	49.63			
PERCENT SOLIDS	73.6			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/06/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.12	0.20	ND
1,2,3,7,8-PeCDF	*	0.05	1.01	ND
2,3,4,7,8-PeCDF	*	0.05	1.01	ND
1,2,3,4,7,8-HxCDF	*	0.07	1.01	ND
1,2,3,6,7,8-HxCDF	*	0.11	1.01	ND
2,3,4,6,7,8-HxCDF	0.13	0.07	1.01	J
1,2,3,7,8,9-HxCDF	*	0.14	1.01	ND
1,2,3,4,6,7,8-HpCDF	*	0.24	1.01	ND
1,2,3,4,7,8,9-HpCDF	*	0.09	1.01	ND
OCDF	*	0.23	2.01	ND
2,3,7,8-TCDD	*	0.05	0.20	ND
1,2,3,7,8-PeCDD	0.39	0.12	1.01	J
1,2,3,4,7,8-HxCDD	0.27	0.09	1.01	J
1,2,3,6,7,8-HxCDD	*	0.20	1.01	ND
1,2,3,7,8,9-HxCDD	0.27	0.09	1.01	J
1,2,3,4,6,7,8-HpCDD	2.12	0.08	1.01	
OCDD	13.8	0.11	2.01	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	60			
13C-1,2,3,7,8-PeCDF	56			
13C-2,3,4,7,8-PeCDF	65			
13C-1,2,3,4,7,8-HxCDF	62			
13C-1,2,3,6,7,8-HxCDF	49			
13C-2,3,4,6,7,8-HxCDF	50			
13C-1,2,3,7,8,9-HxCDF	67			
13C-1,2,3,4,6,7,8-HpCDF	56			
13C-1,2,3,4,7,8,9-HpCDF	75			
13C-2,3,7,8-TCDD	78			
13C-1,2,3,7,8-PeCDD	75			
13C-1,2,3,4,7,8-HxCDD	75			
13C-1,2,3,6,7,8-HxCDD	58			
3C-1,2,3,4,6,7,8-HpCDD	73			
13C-OCDD	79			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16704			
CLIENT SAMPLE ID	Station 19 Sediment			
INSTRUMENT DATA FILE	50205PGA02-S4			
WET WEIGHT	46.10			
DRY WEIGHT	22.82			
PERCENT SOLIDS	49.5			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/06/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.45	0.44	ND
1,2,3,7,8-PeCDF	*	0.33	2.19	ND
2,3,4,7,8-PeCDF	*	0.35	2.19	ND
1,2,3,4,7,8-HxCDF	*	0.38	2.19	ND
1,2,3,6,7,8-HxCDF	*	0.33	2.19	ND
2,3,4,6,7,8-HxCDF	0.41	0.40	2.19	J
1,2,3,7,8,9-HxCDF	0.42	0.48	2.19	J
1,2,3,4,6,7,8-HpCDF	*	0.64	2.19	ND
1,2,3,4,7,8,9-HpCDF	*	0.48	2.19	ND
OCDF	*	1.33	4.38	ND
2,3,7,8-TCDD	*	0.34	0.44	ND
1,2,3,7,8-PeCDD	*	0.60	2.19	ND
1,2,3,4,7,8-HxCDD	*	0.52	2.19	ND
1,2,3,6,7,8-HxCDD	*	0.52	2.19	ND
1,2,3,7,8,9-HxCDD	*	0.55	2.19	ND
1,2,3,4,6,7,8-HpCDD	2.51	0.58	2.19	
OCDD	16.5	0.83	4.38	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	66			
13C-1,2,3,7,8-PeCDF	53			
13C-2,3,4,7,8-PeCDF	56			
13C-1,2,3,4,7,8-HxCDF	73			
13C-1,2,3,6,7,8-HxCDF	64			
13C-2,3,4,6,7,8-HxCDF	65			
13C-1,2,3,7,8,9-HxCDF	71			
13C-1,2,3,4,6,7,8-HpCDF	65			
13C-1,2,3,4,7,8,9-HpCDF	75			
13C-2,3,7,8-TCDD	83			
13C-1,2,3,7,8-PeCDD	69			
13C-1,2,3,4,7,8-HxCDD	86			
13C-1,2,3,6,7,8-HxCDD	71			
3C-1,2,3,4,6,7,8-HpCDD	72			
13C-OCDD	83			

CLIENT NAME	Office of Naval Research			
PROJECT NAME	Contaminants Release to Russian Arctic Rivers			
PURCHASE ORDER NO.				
LAB SAMPLE ID	C16718			
CLIENT SAMPLE ID	Station 33 Sediment			
INSTRUMENT DATA FILE	50205PGA02-S5			
WET WEIGHT	44.36			
DRY WEIGHT	30.24			
PERCENT SOLIDS	68.2			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SAMP			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/06/95			
	Conc	EDL	LMCL	DBQual
Compound Name	(pg/g)	(pg/g)	(pg/g)	
2,3,7,8-TCDF	*	0.44	0.33	ND
1,2,3,7,8-PeCDF	*	0.28	1.65	ND
2,3,4,7,8-PeCDF	*	0.24	1.65	ND
1,2,3,4,7,8-HxCDF	*	0.26	1.65	ND
1,2,3,6,7,8-HxCDF	*	0.25	1.65	ND
2,3,4,6,7,8-HxCDF	*	0.31	1.65	ND
1,2,3,7,8,9-HxCDF	*	0.39	1.65	ND
1,2,3,4,6,7,8-HpCDF	*	0.57	1.65	ND
1,2,3,4,7,8,9-HpCDF	*	0.41	1.65	ND
OCDF	*	1.03	3.31	ND
2,3,7,8-TCDD	*	0.27	0.33	ND
1,2,3,7,8-PeCDD	*	0.72	1.65	ND
1,2,3,4,7,8-HxCDD	*	0.40	1.65	ND
1,2,3,6,7,8-HxCDD	*	0.37	1.65	ND
1,2,3,7,8,9-HxCDD	*	0.40	1.65	ND
1,2,3,4,6,7,8-HpCDD	1.83	0.49	1.65	
OCDD	7.64	0.63	3.31	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	48			
13C-1,2,3,7,8-PeCDF	42			
13C-2,3,4,7,8-PeCDF	52			
13C-1,2,3,4,7,8-HxCDF	54			
13C-1,2,3,6,7,8-HxCDF	45			
13C-2,3,4,6,7,8-HxCDF	43			
13C-1,2,3,7,8,9-HxCDF	48			
13C-1,2,3,4,6,7,8-HpCDF	46			
13C-1,2,3,4,7,8,9-HpCDF	59			
13C-2,3,7,8-TCDD	62			
13C-1,2,3,7,8-PeCDD	61			
13C-1,2,3,4,7,8-HxCDD	59			
13C-1,2,3,6,7,8-HxCDD	54			
3C-1,2,3,4,6,7,8-HpCDD	53			
13C-OCDD	61			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16747
CLIENT SAMPLE ID	Station 71A Sediment
INSTRUMENT DATA FILE	50205PGA02-S6
WET WEIGHT	45.89
DRY WEIGHT	18.58
PERCENT SOLIDS	40.5
CALCULATION BASIS	DRY
SAMPLE TYPE	SAMP
MATRIX	SEDIMENT
QC BATCH	DX0183
EXTRACTION DATE	12/09/94
ANALYSIS DATE	02/06/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.51	0.54	ND
1,2,3,7,8-PeCDF	*	0.47	2.69	ND
2,3,4,7,8-PeCDF	*	0.36	2.69	ND
1,2,3,4,7,8-HxCDF	0.53	0.46	2.69	J
1,2,3,6,7,8-HxCDF	0.46	0.45	2.69	J
2,3,4,6,7,8-HxCDF	0.51	0.57	2.69	J
1,2,3,7,8,9-HxCDF	0.55	0.61	2.69	J
1,2,3,4,6,7,8-HpCDF	0.88	0.48	2.69	J
1,2,3,4,7,8,9-HpCDF	*	0.53	2.69	ND
OCDF	*	1.48	5.38	ND
2,3,7,8-TCDD	*	0.31	0.54	ND
1,2,3,7,8-PeCDD	*	1.20	2.69	ND
1,2,3,4,7,8-HxCDD	*	0.87	2.69	ND
1,2,3,6,7,8-HxCDD	0.75	0.40	2.69	J
1,2,3,7,8,9-HxCDD	0.95	0.42	2.69	J
1,2,3,4,6,7,8-HpCDD	7.32	0.56	2.69	
OCDD	49.2	0.86	5.38	

Internal Standard % Recoveries	% Recov	DB Qual
13C-2,3,7,8-TCDF	60	
13C-1,2,3,7,8-PeCDF	53	
13C-2,3,4,7,8-PeCDF	71	
13C-1,2,3,4,7,8-HxCDF	64	
13C-1,2,3,6,7,8-HxCDF	52	
13C-2,3,4,6,7,8-HxCDF	52	
13C-1,2,3,7,8,9-HxCDF	60	
13C-1,2,3,4,6,7,8-HpCDF	54	
13C-1,2,3,4,7,8,9-HpCDF	80	
13C-2,3,7,8-TCDD	77	
13C-1,2,3,7,8-PeCDD	78	
13C-1,2,3,4,7,8-HxCDD	75	
13C-1,2,3,6,7,8-HxCDD	62	
13C-1,2,3,4,6,7,8-HpCDD	73	
13C-OCDD	80	

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Dioxins and Furans
in Sediments
Quality Control Sample Data

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q11192			
CLIENT SAMPLE ID				
INSTRUMENT DATA FILE	50203LCA01-21			
WET WEIGHT				
DRY WEIGHT	20.00			
PERCENT SOLIDS				
CALCULATION BASIS	DRY			
SAMPLE TYPE	BLANK			
MATRIX				
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.27	0.50	ND
1,2,3,7,8-PeCDF	*	0.26	2.50	ND
2,3,4,7,8-PeCDF	*	0.26	2.50	ND
1,2,3,4,7,8-HxCDF	*	0.06	2.50	ND
1,2,3,6,7,8-HxCDF	0.45	0.06	2.50	J
2,3,4,6,7,8-HxCDF	0.40	0.07	2.50	J
1,2,3,7,8,9-HxCDF	*	0.09	2.50	ND
1,2,3,4,6,7,8-HpCDF	0.46	0.07	2.50	J
1,2,3,4,7,8,9-HpCDF	*	0.09	2.50	ND
OCDF	*	0.17	5.00	ND
2,3,7,8-TCDD	*	0.09	0.50	ND
1,2,3,7,8-PeCDD	*	0.64	2.50	ND
1,2,3,4,7,8-HxCDD	*	0.14	2.50	ND
1,2,3,6,7,8-HxCDD	*	0.14	2.50	ND
1,2,3,7,8,9-HxCDD	*	0.15	2.50	ND
1,2,3,4,6,7,8-HpCDD	0.47	0.10	2.50	J
OCDD	*	0.22	5.00	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	87			
13C-1,2,3,7,8-PeCDF	28			
13C-2,3,4,7,8-PeCDF	25			
13C-1,2,3,4,7,8-HxCDF	88			
13C-1,2,3,6,7,8-HxCDF	71			
13C-2,3,4,6,7,8-HxCDF	74			
13C-1,2,3,7,8,9-HxCDF	76			
13C-1,2,3,4,6,7,8-HpCDF	92			
13C-1,2,3,4,7,8,9-HpCDF	122			
13C-2,3,7,8-TCDD	92			
13C-1,2,3,7,8-PeCDD	18	Q		
13C-1,2,3,4,7,8-HxCDD	90			
13C-1,2,3,6,7,8-HxCDD	69			
3C-1,2,3,4,6,7,8-HpCDD	89			
13C-OCDD	84			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q11196			
CLIENT SAMPLE ID	Station 21 Sediment			
INSTRUMENT DATA FILE	50203LCA01-29			
WET WEIGHT	20.48			
DRY WEIGHT	13.06			
PERCENT SOLIDS	63.8			
CALCULATION BASIS	DRY			
SAMPLE TYPE	DUP			
MATRIX	SEDIMENT			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	1.04	0.77	ND
1,2,3,7,8-PeCDF	*	2.40	3.83	ND
2,3,4,7,8-PeCDF	*	5.25	3.83	ND
1,2,3,4,7,8-HxCDF	*	0.48	3.83	ND
1,2,3,6,7,8-HxCDF	*	0.61	3.83	ND
2,3,4,6,7,8-HxCDF	*	0.68	3.83	ND
1,2,3,7,8,9-HxCDF	*	0.75	3.83	ND
1,2,3,4,6,7,8-HpCDF	0.98	0.03	3.83	J
1,2,3,4,7,8,9-HpCDF	*	0.04	3.83	ND
OCDF	0.41	0.07	7.66	J
2,3,7,8-TCDD	*	0.13	0.77	ND
1,2,3,7,8-PeCDD	*	5.21	3.83	ND
1,2,3,4,7,8-HxCDD	0.75	0.05	3.83	J
1,2,3,6,7,8-HxCDD	0.57	0.05	3.83	J
1,2,3,7,8,9-HxCDD	0.59	0.05	3.83	J
1,2,3,4,6,7,8-HpCDD	6.73	0.05	3.83	
OCDD	43.6	0.14	7.66	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	93			
13C-1,2,3,7,8-PeCDF	2	Q		
13C-2,3,4,7,8-PeCDF	1	Q		
13C-1,2,3,4,7,8-HxCDF	86			
13C-1,2,3,6,7,8-HxCDF	65			
13C-2,3,4,6,7,8-HxCDF	65			
13C-1,2,3,7,8,9-HxCDF	80			
13C-1,2,3,4,6,7,8-HpCDF	92			
13C-1,2,3,4,7,8,9-HpCDF	119			
13C-2,3,7,8-TCDD	99			
13C-1,2,3,7,8-PeCDD	2	Q		
13C-1,2,3,4,7,8-HxCDD	94			
13C-1,2,3,6,7,8-HxCDD	71			
3C-1,2,3,4,6,7,8-HpCDD	91			
13C-OCDD	98			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12911	Q11196		
CLIENT SAMPLE ID	Station 21 Sediments	Station 21 Sediment		
INSTRUMENT DATA FILE	50203LCA01-25	50203LCA01-29		
WET WEIGHT	23.45	20.48		
DRY WEIGHT	14.95	13.06		
PERCENT SOLIDS	63.8	63.8		
CALCULATION BASIS	DRY	DRY		
SAMPLE TYPE	SAMP	DUP		
MATRIX	SEDIMENT	SEDIMENT		
QC BATCH	DX0173	DX0173		
EXTRACTION DATE	11/30/94	11/30/94		
ANALYSIS DATE	02/04/95	02/04/95		
	Conc	Conc	RPD	DB
Compound Name	(pg/g)	(pg/g)	(%)	Qual
2,3,7,8-TCDF	0.44	*		
1,2,3,7,8-PeCDF	*	*		
2,3,4,7,8-PeCDF	*	*		
1,2,3,4,7,8-HxCDF	0.48	*		
1,2,3,6,7,8-HxCDF	0.70	*		
2,3,4,6,7,8-HxCDF	*	*		
1,2,3,7,8,9-HxCDF	0.69	*		
1,2,3,4,6,7,8-HpCDF	1.04	0.98	6	
1,2,3,4,7,8,9-HpCDF	*	*		
OCDF	0.27	0.41	41	
2,3,7,8-TCDD	*	*		
1,2,3,7,8-PeCDD	*	*		
1,2,3,4,7,8-HxCDD	0.69	0.75	8	
1,2,3,6,7,8-HxCDD	0.55	0.57	4	
1,2,3,7,8,9-HxCDD	*	0.59		
1,2,3,4,6,7,8-HpCDD	6.29	6.73	7	
OCDD	39.5	43.6	10	
Internal Standard				
% Recoveries				
13C-2,3,7,8-TCDF				
13C-1,2,3,7,8-PeCDF				
13C-2,3,4,7,8-PeCDF				
13C-1,2,3,4,7,8-HxCDF				
13C-1,2,3,6,7,8-HxCDF				
13C-2,3,4,6,7,8-HxCDF				
13C-1,2,3,7,8,9-HxCDF				
13C-1,2,3,4,6,7,8-HpCDF				
13C-1,2,3,4,7,8,9-HpCDF				
13C-2,3,7,8-TCDD				
13C-1,2,3,7,8-PeCDD				
13C-1,2,3,4,7,8-HxCDD				
13C-1,2,3,6,7,8-HxCDD				
13C-1,2,3,4,6,7,8-HpCDD				
13C-OCDD				

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q11195			
CLIENT SAMPLE ID				
INSTRUMENT DATA FILE	50203LCA01-32			
WET WEIGHT				
DRY WEIGHT	20.00			
PERCENT SOLIDS				
CALCULATION BASIS	DRY			
SAMPLE TYPE	LBS			
MATRIX				
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	51.4	0.29	0.50	
1,2,3,7,8-PeCDF	281	7.84	2.50	
2,3,4,7,8-PeCDF	276	11.9	2.50	
1,2,3,4,7,8-HxCDF	239	0.44	2.50	
1,2,3,6,7,8-HxCDF	244	0.45	2.50	
2,3,4,6,7,8-HxCDF	251	0.53	2.50	
1,2,3,7,8,9-HxCDF	236	0.67	2.50	
1,2,3,4,6,7,8-HpCDF	239	0.24	2.50	
1,2,3,4,7,8,9-HpCDF	233	0.30	2.50	
OCDF	479	0.37	5.00	
2,3,7,8-TCDD	37.6	0.09	0.50	
1,2,3,7,8-PeCDD	153	11.0	2.50	
1,2,3,4,7,8-HxCDD	196	0.11	2.50	
1,2,3,6,7,8-HxCDD	205	0.11	2.50	
1,2,3,7,8,9-HxCDD	215	0.12	2.50	
1,2,3,4,6,7,8-HpCDD	223	0.21	2.50	
OCDD	401	0.40	5.00	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	88			
13C-1,2,3,7,8-PeCDF	2	Q		
13C-2,3,4,7,8-PeCDF	1	Q		
13C-1,2,3,4,7,8-HxCDF	93			
13C-1,2,3,6,7,8-HxCDF	70			
13C-2,3,4,6,7,8-HxCDF	70			
13C-1,2,3,7,8,9-HxCDF	80			
13C-1,2,3,4,6,7,8-HpCDF	82			
13C-1,2,3,4,7,8,9-HpCDF	108			
13C-2,3,7,8-TCDD	94			
13C-1,2,3,7,8-PeCDD	1	Q		
13C-1,2,3,4,7,8-HxCDD	91			
13C-1,2,3,6,7,8-HxCDD	68			
3C-1,2,3,4,6,7,8-HpCDD	83			
13C-OCDD	80			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q11192		Q11195		
CLIENT SAMPLE ID					
INSTRUMENT DATA FILE	50203LCA01-21		50203LCA01-32		
WET WEIGHT					
DRY WEIGHT	20.00		20.00		
PERCENT SOLIDS					
CALCULATION BASIS	DRY		DRY		
SAMPLE TYPE	BLANK		LBS		
MATRIX					
QC BATCH	DX0173		DX0173		
EXTRACTION DATE	11/30/94		11/30/94		
ANALYSIS DATE	02/04/95		02/04/95		
Compound Name	Conc (pg/g)	Spike Amnt (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
2,3,7,8-TCDF	*	40	51.4	128	
1,2,3,7,8-PeCDF	*	200	281	141	Q
2,3,4,7,8-PeCDF	*	200	276	138	Q
1,2,3,4,7,8-HxCDF	*	200	239	119	
1,2,3,6,7,8-HxCDF	0.45	200	244	122	
2,3,4,6,7,8-HxCDF	0.40	200	251	126	
1,2,3,7,8,9-HxCDF	*	200	236	118	
1,2,3,4,6,7,8-HpCDF	0.46	200	239	119	
1,2,3,4,7,8,9-HpCDF	*	200	233	117	
OCDF	*	400	479	120	
2,3,7,8-TCDD	*	40	37.6	94	
1,2,3,7,8-PeCDD	*	200	153	76	
1,2,3,4,7,8-HxCDD	*	200	196	98	
1,2,3,6,7,8-HxCDD	*	200	205	102	
1,2,3,7,8,9-HxCDD	*	200	215	108	
1,2,3,4,6,7,8-HpCDD	0.47	200	223	111	
OCDD	*	400	401	100	
Internal Standard					
% Recoveries					
13C-2,3,7,8-TCDF					
13C-1,2,3,7,8-PeCDF					
13C-2,3,4,7,8-PeCDF					
13C-1,2,3,4,7,8-HxCDF					
13C-1,2,3,6,7,8-HxCDF					
13C-2,3,4,6,7,8-HxCDF					
13C-1,2,3,7,8,9-HxCDF					
13C-1,2,3,4,6,7,8-HpCDF					
13C-1,2,3,4,7,8,9-HpCDF					
13C-2,3,7,8-TCDD					
13C-1,2,3,7,8-PeCDD					
13C-1,2,3,4,7,8-HxCDD					
13C-1,2,3,6,7,8-HxCDD					
3C-1,2,3,4,6,7,8-HpCDD					
13C-OCDD					

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q11194			
CLIENT SAMPLE ID	Station 21 Sediments			
INSTRUMENT DATA FILE	50203LCA01-31			
WET WEIGHT	24.00			
DRY WEIGHT	15.30			
PERCENT SOLIDS	63.8			
CALCULATION BASIS	DRY			
SAMPLE TYPE	MS			
MATRIX	SEDIMENTS			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	68.1	0.65	0.65	
1,2,3,7,8-PeCDF	276	31.5	3.27	
2,3,4,7,8-PeCDF	358	34.6	3.27	
1,2,3,4,7,8-HxCDF	323	0.28	3.27	
1,2,3,6,7,8-HxCDF	316	0.28	3.27	
2,3,4,6,7,8-HxCDF	317	0.33	3.27	
1,2,3,7,8,9-HxCDF	299	0.34	3.27	
1,2,3,4,6,7,8-HpCDF	313	0.51	3.27	
1,2,3,4,7,8,9-HpCDF	295	0.62	3.27	
OCDF	605	0.85	6.54	
2,3,7,8-TCDD	49.5	0.78	0.65	
1,2,3,7,8-PeCDD	185	12.9	3.27	
1,2,3,4,7,8-HxCDD	271	0.72	3.27	
1,2,3,6,7,8-HxCDD	277	0.71	3.27	
1,2,3,7,8,9-HxCDD	310	0.76	3.27	
1,2,3,4,6,7,8-HpCDD	303	1.37	3.27	
OCDD	526	3.00	6.54	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	93			
13C-1,2,3,7,8-PeCDF	3	Q		
13C-2,3,4,7,8-PeCDF	3	Q		
13C-1,2,3,4,7,8-HxCDF	95			
13C-1,2,3,6,7,8-HxCDF	77			
13C-2,3,4,6,7,8-HxCDF	79			
13C-1,2,3,7,8,9-HxCDF	102			
13C-1,2,3,4,6,7,8-HpCDF	89			
13C-1,2,3,4,7,8,9-HpCDF	115			
13C-2,3,7,8-TCDD	98			
13C-1,2,3,7,8-PeCDD	2	Q		
13C-1,2,3,4,7,8-HxCDD	95			
13C-1,2,3,6,7,8-HxCDD	71			
13C-1,2,3,4,6,7,8-HpCDD	86			
13C-OCDD	94			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C12911	Q11194
CLIENT SAMPLE ID	Station 21 Sediments	Station 21 Sediments
INSTRUMENT DATA FILE	50203LCA01-25	50203LCA01-31
WET WEIGHT	23.45	24.00
DRY WEIGHT	14.95	15.30
PERCENT SOLIDS	63.8	63.8
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	SEDIMENT	SEDIMENTS
QC BATCH	DX0173	DX0173
EXTRACTION DATE	11/30/94	11/30/94
ANALYSIS DATE	02/04/95	02/04/95

Compound Name	Conc (pg/g)	Spike Amnt (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
2,3,7,8-TCDF	0.44	52	68.1	129	
1,2,3,7,8-PeCDF	*	261	276	106	
2,3,4,7,8-PeCDF	*	261	358	137	Q
1,2,3,4,7,8-HxCDF	0.48	261	323	123	
1,2,3,6,7,8-HxCDF	0.70	261	316	121	
2,3,4,6,7,8-HxCDF	*	261	317	121	
1,2,3,7,8,9-HxCDF	0.69	261	299	114	
1,2,3,4,6,7,8-HpCDF	1.04	261	313	119	
1,2,3,4,7,8,9-HpCDF	*	261	295	113	
OCDF	0.27	523	605	116	
2,3,7,8-TCDD	*	52	49.5	95	
1,2,3,7,8-PeCDD	*	261	185	71	
1,2,3,4,7,8-HxCDD	0.69	261	271	104	
1,2,3,6,7,8-HxCDD	0.55	261	277	106	
1,2,3,7,8,9-HxCDD	*	261	310	119	
1,2,3,4,6,7,8-HpCDD	6.29	261	303	113	
OCDD	39.5	523	526	93	

Internal Standard
% Recoveries
13C-2,3,7,8-TCDF
13C-1,2,3,7,8-PeCDF
13C-2,3,4,7,8-PeCDF
13C-1,2,3,4,7,8-HxCDF
13C-1,2,3,6,7,8-HxCDF
13C-2,3,4,6,7,8-HxCDF
13C-1,2,3,7,8,9-HxCDF
13C-1,2,3,4,6,7,8-HpCDF
13C-1,2,3,4,7,8,9-HpCDF
13C-2,3,7,8-TCDD
13C-1,2,3,7,8-PeCDD
13C-1,2,3,4,7,8-HxCDD
13C-1,2,3,6,7,8-HxCDD
3C-1,2,3,4,6,7,8-HpCDD
13C-OCDD

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q11193			
CLIENT SAMPLE ID	1941A			
INSTRUMENT DATA FILE	50203LCA01-30			
WET WEIGHT	5.09			
DRY WEIGHT	5.09			
PERCENT SOLIDS	100.0			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SRM			
MATRIX	SEDIMENTS			
QC BATCH	DX0173			
EXTRACTION DATE	11/30/94			
ANALYSIS DATE	02/04/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	97.3	0.49	1.96	
1,2,3,7,8-PeCDF	193	25.8	9.82	
2,3,4,7,8-PeCDF	*	32.1	9.82	ND
1,2,3,4,7,8-HxCDF	394	9.46	9.82	
1,2,3,6,7,8-HxCDF	105	9.16	9.82	
2,3,4,6,7,8-HxCDF	57.5	11.1	9.82	
1,2,3,7,8,9-HxCDF	67.7	11.7	9.82	
1,2,3,4,6,7,8-HpCDF	512	0.81	9.82	
1,2,3,4,7,8,9-HpCDF	295	1.03	9.82	
OCDF	5883	1.44	19.6	
2,3,7,8-TCDD	*	0.37	1.96	ND
1,2,3,7,8-PeCDD	119	15.7	9.82	
1,2,3,4,7,8-HxCDD	10.6	0.83	9.82	
1,2,3,6,7,8-HxCDD	24.9	0.81	9.82	
1,2,3,7,8,9-HxCDD	17.0	0.87	9.82	
1,2,3,4,6,7,8-HpCDD	508	1.16	9.82	
OCDD	6420	1.24	19.6	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	91			
13C-1,2,3,7,8-PeCDF	2	Q		
13C-2,3,4,7,8-PeCDF	2	Q		
13C-1,2,3,4,7,8-HxCDF	96			
13C-1,2,3,6,7,8-HxCDF	73			
13C-2,3,4,6,7,8-HxCDF	73			
13C-1,2,3,7,8,9-HxCDF	91			
13C-1,2,3,4,6,7,8-HpCDF	90			
13C-1,2,3,4,7,8,9-HpCDF	123			
13C-2,3,7,8-TCDD	98			
13C-1,2,3,7,8-PeCDD	3	Q		
13C-1,2,3,4,7,8-HxCDD	111			
13C-1,2,3,6,7,8-HxCDD	76			
13C-1,2,3,4,6,7,8-HpCDD	93			
13C-OCDD	117			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10021			
CLIENT SAMPLE ID				
INSTRUMENT DATA FILE	50208LCA01-S6			
WET WEIGHT				
DRY WEIGHT	20.00			
PERCENT SOLIDS				
CALCULATION BASIS	DRY			
SAMPLE TYPE	BLANK			
MATRIX				
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.75	0.50	ND
1,2,3,7,8-PeCDF	*	0.56	2.50	ND
2,3,4,7,8-PeCDF	*	0.64	2.50	ND
1,2,3,4,7,8-HxCDF	*	0.49	2.50	ND
1,2,3,6,7,8-HxCDF	*	0.46	2.50	ND
2,3,4,6,7,8-HxCDF	*	0.58	2.50	ND
1,2,3,7,8,9-HxCDF	*	0.72	2.50	ND
1,2,3,4,6,7,8-HpCDF	*	0.59	2.50	ND
1,2,3,4,7,8,9-HpCDF	*	0.82	2.50	ND
OCDF	*	2.91	5.00	ND
2,3,7,8-TCDD	*	0.45	0.50	ND
1,2,3,7,8-PeCDD	*	0.93	2.50	ND
1,2,3,4,7,8-HxCDD	*	0.58	2.50	ND
1,2,3,6,7,8-HxCDD	*	0.58	2.50	ND
1,2,3,7,8,9-HxCDD	*	0.61	2.50	ND
1,2,3,4,6,7,8-HpCDD	*	1.08	2.50	ND
OCDD	*	1.56	5.00	ND
Internal Standard % Recoveries	% Recov	DB Qual		
13C-2,3,7,8-TCDF	64			
13C-1,2,3,7,8-PeCDF	62			
13C-2,3,4,7,8-PeCDF	60			
13C-1,2,3,4,7,8-HxCDF	76			
13C-1,2,3,6,7,8-HxCDF	65			
13C-2,3,4,6,7,8-HxCDF	61			
13C-1,2,3,7,8,9-HxCDF	69			
13C-1,2,3,4,6,7,8-HpCDF	61			
13C-1,2,3,4,7,8,9-HpCDF	75			
13C-2,3,7,8-TCDD	80			
13C-1,2,3,7,8-PeCDD	63			
13C-1,2,3,4,7,8-HxCDD	85			
13C-1,2,3,6,7,8-HxCDD	72			
3C-1,2,3,4,6,7,8-HpCDD	67			
13C-OCDD	64			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10022			
CLIENT SAMPLE ID	Station 10 Sediments			
INSTRUMENT DATA FILE	50208LCA01-S14			
WET WEIGHT	39.37			
DRY WEIGHT	33.21			
PERCENT SOLIDS	84.4			
CALCULATION BASIS	DRY			
SAMPLE TYPE	DUP			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/08/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.06	0.30	ND
1,2,3,7,8-PeCDF	*	0.09	1.51	ND
2,3,4,7,8-PeCDF	*	0.10	1.51	ND
1,2,3,4,7,8-HxCDF	*	0.15	1.51	ND
1,2,3,6,7,8-HxCDF	*	0.17	1.51	ND
2,3,4,6,7,8-HxCDF	*	0.15	1.51	ND
1,2,3,7,8,9-HxCDF	*	0.20	1.51	ND
1,2,3,4,6,7,8-HpCDF	*	0.28	1.51	ND
1,2,3,4,7,8,9-HpCDF	*	0.10	1.51	ND
OCDF	*	0.19	3.01	ND
2,3,7,8-TCDD	*	0.07	0.30	ND
1,2,3,7,8-PeCDD	0.57	0.14	1.51	J
1,2,3,4,7,8-HxCDD	*	0.29	1.51	ND
1,2,3,6,7,8-HxCDD	*	0.08	1.51	ND
1,2,3,7,8,9-HxCDD	*	0.09	1.51	ND
1,2,3,4,6,7,8-HpCDD	*	0.37	1.51	ND
OCDD	*	0.47	3.01	ND
Internal Standard % Recoveries	% Recov	DB Qual		
13C-2,3,7,8-TCDF	58			
13C-1,2,3,7,8-PeCDF	55			
13C-2,3,4,7,8-PeCDF	56			
13C-1,2,3,4,7,8-HxCDF	67			
13C-1,2,3,6,7,8-HxCDF	51			
13C-2,3,4,6,7,8-HxCDF	53			
13C-1,2,3,7,8,9-HxCDF	65			
13C-1,2,3,4,6,7,8-HpCDF	53			
13C-1,2,3,4,7,8,9-HpCDF	71			
13C-2,3,7,8-TCDD	79			
13C-1,2,3,7,8-PeCDD	59			
13C-1,2,3,4,7,8-HxCDD	83			
13C-1,2,3,6,7,8-HxCDD	60			
3C-1,2,3,4,6,7,8-HpCDD	65			
13C-OCDD	66			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16684	Q10022		
CLIENT SAMPLE ID	Station 10 Sediments	Station 10 Sediments		
INSTRUMENT DATA FILE	50208LCA01-S11	50208LCA01-S14		
WET WEIGHT	39.96	39.37		
DRY WEIGHT	33.71	33.21		
PERCENT SOLIDS	84.4	84.4		
CALCULATION BASIS	DRY	DRY		
SAMPLE TYPE	SAMP	DUP		
MATRIX	SEDIMENT	SEDIMENT		
QC BATCH	DX0180	DX0180		
EXTRACTION DATE	12/02/94	12/02/94		
ANALYSIS DATE	02/08/95	02/08/95		
Compound Name	Conc (pg/g)	Conc (pg/g)	RPD (%)	DB Qual
2,3,7,8-TCDF	*	*	NA	
1,2,3,7,8-PeCDF	*	*	NA	
2,3,4,7,8-PeCDF	*	*	NA	
1,2,3,4,7,8-HxCDF	*	*	NA	
1,2,3,6,7,8-HxCDF	*	*	NA	
2,3,4,6,7,8-HxCDF	*	*	NA	
1,2,3,7,8,9-HxCDF	0.19	*	NA	
1,2,3,4,6,7,8-HpCDF	0.19	*	NA	
1,2,3,4,7,8,9-HpCDF	*	*	NA	
OCDF	*	*	NA	
2,3,7,8-TCDD	*	*	NA	
1,2,3,7,8-PeCDD	*	0.57	NA	
1,2,3,4,7,8-HxCDD	*	*	NA	
1,2,3,6,7,8-HxCDD	*	*	NA	
1,2,3,7,8,9-HxCDD	*	*	NA	
1,2,3,4,6,7,8-HpCDD	0.24	*	NA	
OCDD	0.74	*	NA	
Internal Standard				
% Recoveries				
13C-2,3,7,8-TCDF				
13C-1,2,3,7,8-PeCDF				
13C-2,3,4,7,8-PeCDF				
13C-1,2,3,4,7,8-HxCDF				
13C-1,2,3,6,7,8-HxCDF				
13C-2,3,4,6,7,8-HxCDF				
13C-1,2,3,7,8,9-HxCDF				
13C-1,2,3,4,6,7,8-HpCDF				
13C-1,2,3,4,7,8,9-HpCDF				
13C-2,3,7,8-TCDD				
13C-1,2,3,7,8-PeCDD				
13C-1,2,3,4,7,8-HxCDD				
13C-1,2,3,6,7,8-HxCDD				
3C-1,2,3,4,6,7,8-HpCDD				
13C-OCDD				

PCDD/PCDF Analysis

Page 11

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10026			
CLIENT SAMPLE ID				
INSTRUMENT DATA FILE	50208LCA01-S17			
WET WEIGHT				
DRY WEIGHT	20.00			
PERCENT SOLIDS				
CALCULATION BASIS	DRY			
SAMPLE TYPE	LBS			
MATRIX				
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/09/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	45.1	0.15	0.50	
1,2,3,7,8-PeCDF	209	0.08	2.50	
2,3,4,7,8-PeCDF	243	0.08	2.50	
1,2,3,4,7,8-HxCDF	218	0.15	2.50	
1,2,3,6,7,8-HxCDF	226	0.14	2.50	
2,3,4,6,7,8-HxCDF	221	0.17	2.50	
1,2,3,7,8,9-HxCDF	220	0.20	2.50	
1,2,3,4,6,7,8-HpCDF	216	0.19	2.50	
1,2,3,4,7,8,9-HpCDF	206	0.21	2.50	
OCDF	379	0.20	5.00	
2,3,7,8-TCDD	32.3	0.12	0.50	
1,2,3,7,8-PeCDD	210	0.10	2.50	
1,2,3,4,7,8-HxCDD	202	0.11	2.50	
1,2,3,6,7,8-HxCDD	202	0.11	2.50	
1,2,3,7,8,9-HxCDD	211	0.12	2.50	
1,2,3,4,6,7,8-HpCDD	202	0.11	2.50	
OCDD	348	0.20	5.00	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	50			
13C-1,2,3,7,8-PeCDF	52			
13C-2,3,4,7,8-PeCDF	55			
13C-1,2,3,4,7,8-HxCDF	56			
13C-1,2,3,6,7,8-HxCDF	42			
13C-2,3,4,6,7,8-HxCDF	44			
13C-1,2,3,7,8,9-HxCDF	50			
13C-1,2,3,4,6,7,8-HpCDF	45			
13C-1,2,3,4,7,8,9-HpCDF	65			
13C-2,3,7,8-TCDD	68			
13C-1,2,3,7,8-PeCDD	63			
13C-1,2,3,4,7,8-HxCDD	71			
13C-1,2,3,6,7,8-HxCDD	51			
3C-1,2,3,4,6,7,8-HpCDD	56			
13C-OCDD	60			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10021	Q10026
CLIENT SAMPLE ID		
INSTRUMENT DATA FILE	50208LCA01-S6	50208LCA01-S17
WET WEIGHT		
DRY WEIGHT	20.00	20.00
PERCENT SOLIDS		
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	BLANK	LBS
MATRIX		
QC BATCH	DX0180	DX0180
EXTRACTION DATE	12/02/94	12/02/94
ANALYSIS DATE	02/08/95	02/09/95

Compound Name	Conc (pg/g)	Spike Amnt (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
2,3,7,8-TCDF	*	40	45.1	113	
1,2,3,7,8-PeCDF	*	200	209	104	
2,3,4,7,8-PeCDF	*	200	243	121	
1,2,3,4,7,8-HxCDF	*	200	218	109	
1,2,3,6,7,8-HxCDF	*	200	226	113	
2,3,4,6,7,8-HxCDF	*	200	221	110	
1,2,3,7,8,9-HxCDF	*	200	220	110	
1,2,3,4,6,7,8-HpCDF	*	200	216	108	
1,2,3,4,7,8,9-HpCDF	*	200	206	103	
OCDF	*	400	379	95	
2,3,7,8-TCDD	*	40	32.3	81	
1,2,3,7,8-PeCDD	*	200	210	105	
1,2,3,4,7,8-HxCDD	*	200	202	101	
1,2,3,6,7,8-HxCDD	*	200	202	101	
1,2,3,7,8,9-HxCDD	*	200	211	106	
1,2,3,4,6,7,8-HpCDD	*	200	202	101	
OCDD	*	400	348	87	
Internal Standard					
% Recoveries					
13C-2,3,7,8-TCDF					
13C-1,2,3,7,8-PeCDF					
13C-2,3,4,7,8-PeCDF					
13C-1,2,3,4,7,8-HxCDF					
13C-1,2,3,6,7,8-HxCDF					
13C-2,3,4,6,7,8-HxCDF					
13C-1,2,3,7,8,9-HxCDF					
13C-1,2,3,4,6,7,8-HpCDF					
13C-1,2,3,4,7,8,9-HpCDF					
13C-2,3,7,8-TCDD					
13C-1,2,3,7,8-PeCDD					
13C-1,2,3,4,7,8-HxCDD					
13C-1,2,3,6,7,8-HxCDD					
13C-1,2,3,4,6,7,8-HpCDD					
13C-OCDD					

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10024			
CLIENT SAMPLE ID	Station 10 Sediment			
INSTRUMENT DATA FILE	50208LCA01-S16			
WET WEIGHT	41.16			
DRY WEIGHT	34.72			
PERCENT SOLIDS	84.4			
CALCULATION BASIS	DRY			
SAMPLE TYPE	MS			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/09/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	22.7	0.10	0.29	
1,2,3,7,8-PeCDF	110	0.55	1.44	
2,3,4,7,8-PeCDF	128	0.58	1.44	
1,2,3,4,7,8-HxCDF	112	0.05	1.44	
1,2,3,6,7,8-HxCDF	114	0.05	1.44	
2,3,4,6,7,8-HxCDF	113	0.06	1.44	
1,2,3,7,8,9-HxCDF	113	0.07	1.44	
1,2,3,4,6,7,8-HpCDF	115	0.13	1.44	
1,2,3,4,7,8,9-HpCDF	112	0.15	1.44	
OCDF	187	0.16	2.88	
2,3,7,8-TCDD	17.3	0.07	0.29	
1,2,3,7,8-PeCDD	116	0.11	1.44	
1,2,3,4,7,8-HxCDD	102	0.09	1.44	
1,2,3,6,7,8-HxCDD	112	0.09	1.44	
1,2,3,7,8,9-HxCDD	110	0.10	1.44	
1,2,3,4,6,7,8-HpCDD	105	0.12	1.44	
OCDD	183	0.26	2.88	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	63			
13C-1,2,3,7,8-PeCDF	63			
13C-2,3,4,7,8-PeCDF	66			
13C-1,2,3,4,7,8-HxCDF	69			
13C-1,2,3,6,7,8-HxCDF	53			
13C-2,3,4,6,7,8-HxCDF	56			
13C-1,2,3,7,8,9-HxCDF	67			
13C-1,2,3,4,6,7,8-HpCDF	58			
13C-1,2,3,4,7,8,9-HpCDF	80			
13C-2,3,7,8-TCDD	89			
13C-1,2,3,7,8-PeCDD	69			
13C-1,2,3,4,7,8-HxCDD	90			
13C-1,2,3,6,7,8-HxCDD	62			
3C-1,2,3,4,6,7,8-HpCDD	72			
13C-OCDD	79			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16684	Q10024
CLIENT SAMPLE ID	Station 10 Sediments	Station 10 Sediment
INSTRUMENT DATA FILE	50208LCA01-S11	50208LCA01-S16
WET WEIGHT	39.96	41.16
DRY WEIGHT	33.71	34.72
PERCENT SOLIDS	84.4	84.4
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0180	DX0180
EXTRACTION DATE	12/02/94	12/02/94
ANALYSIS DATE	02/08/95	02/09/95

Compound Name	Conc (pg/g)	Spike Amnt (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
2,3,7,8-TCDF	*	23	22.7	98	
1,2,3,7,8-PeCDF	*	115	110	96	
2,3,4,7,8-PeCDF	*	115	128	111	
1,2,3,4,7,8-HxCDF	*	115	112	97	
1,2,3,6,7,8-HxCDF	*	115	114	99	
2,3,4,6,7,8-HxCDF	*	115	113	98	
1,2,3,7,8,9-HxCDF	0.19	115	113	98	
1,2,3,4,6,7,8-HpCDF	0.19	115	115	100	
1,2,3,4,7,8,9-HpCDF	*	115	112	97	
OCDF	*	230	187	81	
2,3,7,8-TCDD	*	23	17.3	75	
1,2,3,7,8-PeCDD	*	115	116	101	
1,2,3,4,7,8-HxCDD	*	115	102	88	
1,2,3,6,7,8-HxCDD	*	115	112	97	
1,2,3,7,8,9-HxCDD	*	115	110	95	
1,2,3,4,6,7,8-HpCDD	0.24	115	105	91	
OCDD	0.74	230	183	79	

Internal Standard
% Recoveries
13C-2,3,7,8-TCDF
13C-1,2,3,7,8-PeCDF
13C-2,3,4,7,8-PeCDF
13C-1,2,3,4,7,8-HxCDF
13C-1,2,3,6,7,8-HxCDF
13C-2,3,4,6,7,8-HxCDF
13C-1,2,3,7,8,9-HxCDF
13C-1,2,3,4,6,7,8-HpCDF
13C-1,2,3,4,7,8,9-HpCDF
13C-2,3,7,8-TCDD
13C-1,2,3,7,8-PeCDD
13C-1,2,3,4,7,8-HxCDD
13C-1,2,3,6,7,8-HxCDD
13C-1,2,3,4,6,7,8-HpCDD
13C-OCDD

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10023			
CLIENT SAMPLE ID	1941A			
INSTRUMENT DATA FILE	50208LCA01-S15			
WET WEIGHT	6.31			
DRY WEIGHT	6.31			
PERCENT SOLIDS	100.0			
CALCULATION BASIS	DRY			
SAMPLE TYPE	SRM			
MATRIX	SEDIMENT			
QC BATCH	DX0180			
EXTRACTION DATE	12/02/94			
ANALYSIS DATE	02/09/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	86.1	0.52	1.58	
1,2,3,7,8-PeCDF	155	1.45	7.92	
2,3,4,7,8-PeCDF	61.2	1.58	7.92	
1,2,3,4,7,8-HxCDF	338	9.59	7.92	
1,2,3,6,7,8-HxCDF	95.8	9.44	7.92	
2,3,4,6,7,8-HxCDF	51.0	11.4	7.92	
1,2,3,7,8,9-HxCDF	61.1	13.3	7.92	
1,2,3,4,6,7,8-HpCDF	448	1.34	7.92	
1,2,3,4,7,8,9-HpCDF	285	1.98	7.92	
OCDF	4974	2.20	15.8	
2,3,7,8-TCDD	*	0.49	1.58	ND
1,2,3,7,8-PeCDD	8.98	0.89	7.92	
1,2,3,4,7,8-HxCDD	11.1	0.97	7.92	
1,2,3,6,7,8-HxCDD	23.2	1.00	7.92	
1,2,3,7,8,9-HxCDD	18.6	1.05	7.92	
1,2,3,4,6,7,8-HpCDD	450	1.35	7.92	
OCDD	5904	2.07	15.8	
Internal Standard % Recoveries	% Recov	DB Qual		
13C-2,3,7,8-TCDF	53			
13C-1,2,3,7,8-PeCDF	49			
13C-2,3,4,7,8-PeCDF	50			
13C-1,2,3,4,7,8-HxCDF	60			
13C-1,2,3,6,7,8-HxCDF	45			
13C-2,3,4,6,7,8-HxCDF	45			
13C-1,2,3,7,8,9-HxCDF	56			
13C-1,2,3,4,6,7,8-HpCDF	50			
13C-1,2,3,4,7,8,9-HpCDF	62			
13C-2,3,7,8-TCDD	73			
13C-1,2,3,7,8-PeCDD	52			
13C-1,2,3,4,7,8-HxCDD	78			
13C-1,2,3,6,7,8-HxCDD	54			
3C-1,2,3,4,6,7,8-HpCDD	60			
13C-OCDD	69			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10054			
CLIENT SAMPLE ID				
INSTRUMENT DATA FILE	50205PGA02-S3			
WET WEIGHT				
DRY WEIGHT	20.00			
PERCENT SOLIDS				
CALCULATION BASIS	DRY			
SAMPLE TYPE	BLANK			
MATRIX				
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/06/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	*	0.46	0.50	ND
1,2,3,7,8-PeCDF	*	0.40	2.50	ND
2,3,4,7,8-PeCDF	*	0.43	2.50	ND
1,2,3,4,7,8-HxCDF	*	0.56	2.50	ND
1,2,3,6,7,8-HxCDF	*	0.53	2.50	ND
2,3,4,6,7,8-HxCDF	*	0.63	2.50	ND
1,2,3,7,8,9-HxCDF	*	0.79	2.50	ND
1,2,3,4,6,7,8-HpCDF	*	0.49	2.50	ND
1,2,3,4,7,8,9-HpCDF	*	0.60	2.50	ND
OCDF	*	1.61	5.00	ND
2,3,7,8-TCDD	*	0.35	0.50	ND
1,2,3,7,8-PeCDD	*	0.87	2.50	ND
1,2,3,4,7,8-HxCDD	*	0.50	2.50	ND
1,2,3,6,7,8-HxCDD	*	0.47	2.50	ND
1,2,3,7,8,9-HxCDD	*	0.51	2.50	ND
1,2,3,4,6,7,8-HpCDD	*	0.80	2.50	ND
OCDD	*	1.04	5.00	ND
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	55			
13C-1,2,3,7,8-PeCDF	45			
13C-2,3,4,7,8-PeCDF	47			
13C-1,2,3,4,7,8-HxCDF	54			
13C-1,2,3,6,7,8-HxCDF	48			
13C-2,3,4,6,7,8-HxCDF	47			
13C-1,2,3,7,8,9-HxCDF	50			
13C-1,2,3,4,6,7,8-HpCDF	49			
13C-1,2,3,4,7,8,9-HpCDF	63			
13C-2,3,7,8-TCDD	64			
13C-1,2,3,7,8-PeCDD	58			
13C-1,2,3,4,7,8-HxCDD	62			
13C-1,2,3,6,7,8-HxCDD	57			
3C-1,2,3,4,6,7,8-HpCDD	57			
13C-OCDD	67			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10054	Q10058
CLIENT SAMPLE ID		
INSTRUMENT DATA FILE	50205PGA02-S3	50205PGA02-S13
WET WEIGHT		
DRY WEIGHT	20.00	20.00
PERCENT SOLIDS		
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	BLANK	LBS
MATRIX		
QC BATCH	DX0183	DX0183
EXTRACTION DATE	12/09/94	12/09/94
ANALYSIS DATE	02/06/95	02/06/95

Compound Name	Conc (pg/g)	Spike Amnt (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
2,3,7,8-TCDF	*	40.0	42.9	107	
1,2,3,7,8-PeCDF	*	200	213	107	
2,3,4,7,8-PeCDF	*	200	241	120	
1,2,3,4,7,8-HxCDF	*	200	204	102	
1,2,3,6,7,8-HxCDF	*	200	201	101	
2,3,4,6,7,8-HxCDF	*	200	206	103	
1,2,3,7,8,9-HxCDF	*	200	202	101	
1,2,3,4,6,7,8-HpCDF	*	200	210	105	
1,2,3,4,7,8,9-HpCDF	*	200	207	104	
OCDF	*	400	332	83	
2,3,7,8-TCDD	*	40.0	33.5	84	
1,2,3,7,8-PeCDD	*	200	189	94	
1,2,3,4,7,8-HxCDD	*	200	181	91	
1,2,3,6,7,8-HxCDD	*	200	190	95	
1,2,3,7,8,9-HxCDD	*	200	204	102	
1,2,3,4,6,7,8-HpCDD	*	200	192	96	
OCDD	*	400	334	83	

Internal Standard
% Recoveries
13C-2,3,7,8-TCDF
13C-1,2,3,7,8-PeCDF
13C-2,3,4,7,8-PeCDF
13C-1,2,3,4,7,8-HxCDF
13C-1,2,3,6,7,8-HxCDF
13C-2,3,4,6,7,8-HxCDF
13C-1,2,3,7,8,9-HxCDF
13C-1,2,3,4,6,7,8-HpCDF
13C-1,2,3,4,7,8,9-HpCDF
13C-2,3,7,8-TCDD
13C-1,2,3,7,8-PeCDD
13C-1,2,3,4,7,8-HxCDD
13C-1,2,3,6,7,8-HxCDD
3C-1,2,3,4,6,7,8-HpCDD
13C-OCDD

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	Q10057			
CLIENT SAMPLE ID	Station 33 Sediment			
INSTRUMENT DATA FILE	50205PGA02-S12			
WET WEIGHT	64.32			
DRY WEIGHT	43.85			
PERCENT SOLIDS	68.2			
CALCULATION BASIS	DRY			
SAMPLE TYPE	MS			
MATRIX	SEDIMENT			
QC BATCH	DX0183			
EXTRACTION DATE	12/09/94			
ANALYSIS DATE	02/06/95			
Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)	DBQual
2,3,7,8-TCDF	18.4	0.08	0.23	
1,2,3,7,8-PeCDF	98.6	0.79	1.14	
2,3,4,7,8-PeCDF	109	0.71	1.14	
1,2,3,4,7,8-HxCDF	93.6	0.07	1.14	
1,2,3,6,7,8-HxCDF	92.4	0.07	1.14	
2,3,4,6,7,8-HxCDF	94.4	0.08	1.14	
1,2,3,7,8,9-HxCDF	88.8	0.08	1.14	
1,2,3,4,6,7,8-HpCDF	95.7	0.15	1.14	
1,2,3,4,7,8,9-HpCDF	91.9	0.19	1.14	
OCDF	144	0.19	2.28	
2,3,7,8-TCDD	14.7	0.11	0.23	
1,2,3,7,8-PeCDD	84.4	0.13	1.14	
1,2,3,4,7,8-HxCDD	83.0	0.23	1.14	
1,2,3,6,7,8-HxCDD	80.1	0.20	1.14	
1,2,3,7,8,9-HxCDD	86.5	0.23	1.14	
1,2,3,4,6,7,8-HpCDD	87.6	0.25	1.14	
OCDD	156	0.41	2.28	
Internal Standard	% Recov	DB Qual		
% Recoveries				
13C-2,3,7,8-TCDF	66			
13C-1,2,3,7,8-PeCDF	59			
13C-2,3,4,7,8-PeCDF	71			
13C-1,2,3,4,7,8-HxCDF	64			
13C-1,2,3,6,7,8-HxCDF	49			
13C-2,3,4,6,7,8-HxCDF	52			
13C-1,2,3,7,8,9-HxCDF	68			
13C-1,2,3,4,6,7,8-HpCDF	59			
13C-1,2,3,4,7,8,9-HpCDF	76			
13C-2,3,7,8-TCDD	87			
13C-1,2,3,7,8-PeCDD	83			
13C-1,2,3,4,7,8-HxCDD	84			
13C-1,2,3,6,7,8-HxCDD	63			
13C-1,2,3,4,6,7,8-HpCDD	74			
13C-OCDD	82			

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Rivers
 PURCHASE ORDER NO.

LAB SAMPLE ID	C16718	Q10057
CLIENT SAMPLE ID	Station 33 Sediment	Station 33 Sediment
INSTRUMENT DATA FILE	50205PGA02-S5	50205PGA02-S12
WET WEIGHT	44.36	64.32
DRY WEIGHT	30.24	43.85
PERCENT SOLIDS	68.2	68.2
CALCULATION BASIS	DRY	DRY
SAMPLE TYPE	SAMP	MS
MATRIX	SEDIMENT	SEDIMENT
QC BATCH	DX0183	DX0183
EXTRACTION DATE	12/09/94	12/09/94
ANALYSIS DATE	02/06/95	02/06/95

Compound Name	Conc (pg/g)	Spike Amnt (pg/g)	Conc (pg/g)	Recov (%)	DB Qual
2,3,7,8-TCDF	*	18.2	18.4	101	
1,2,3,7,8-PeCDF	*	91.2	98.6	108	
2,3,4,7,8-PeCDF	*	91.2	109	119	
1,2,3,4,7,8-HxCDF	*	91.2	93.6	103	
1,2,3,6,7,8-HxCDF	*	91.2	92.4	101	
2,3,4,6,7,8-HxCDF	*	91.2	94.4	103	
1,2,3,7,8,9-HxCDF	*	91.2	88.8	97	
1,2,3,4,6,7,8-HpCDF	*	91.2	95.7	105	
1,2,3,4,7,8,9-HpCDF	*	91.2	91.9	101	
OCDF	*	182	144	79	
2,3,7,8-TCDD	*	18.2	14.7	81	
1,2,3,7,8-PeCDD	*	91.2	84.4	93	
1,2,3,4,7,8-HxCDD	*	91.2	83.0	91	
1,2,3,6,7,8-HxCDD	*	91.2	80.1	88	
1,2,3,7,8,9-HxCDD	*	91.2	86.5	95	
1,2,3,4,6,7,8-HpCDD	1.83	91.2	87.6	94	
OCDD	7.64	182	156	81	

Internal Standard
% Recoveries
13C-2,3,7,8-TCDF
13C-1,2,3,7,8-PeCDF
13C-2,3,4,7,8-PeCDF
13C-1,2,3,4,7,8-HxCDF
13C-1,2,3,6,7,8-HxCDF
13C-2,3,4,6,7,8-HxCDF
13C-1,2,3,7,8,9-HxCDF
13C-1,2,3,4,6,7,8-HpCDF
13C-1,2,3,4,7,8,9-HpCDF
13C-2,3,7,8-TCDD
13C-1,2,3,7,8-PeCDD
13C-1,2,3,4,7,8-HxCDD
13C-1,2,3,6,7,8-HxCDD
3C-1,2,3,4,6,7,8-HpCDD
13C-OCDD

CLIENT NAME Office of Naval Research
 PROJECT NAME Contaminants Release to Russian Arctic Riv
 PURCHASE ORDER NO.

LAB SAMPLE ID Q10056
 CLIENT SAMPLE ID 1941A
 INSTRUMENT DATA FILE 50205PGA02-S11
 WET WEIGHT 6.30
 DRY WEIGHT 6.30
 PERCENT SOLIDS 100.0
 CALCULATION BASIS DRY
 SAMPLE TYPE SRM
 MATRIX SEDIMENT
 QC BATCH DX0183
 EXTRACTION DATE 12/09/94
 ANALYSIS DATE 02/06/95

Compound Name	Conc (pg/g)	EDL (pg/g)	LMCL (pg/g)
2,3,7,8-TCDF	80.1	0.76	1.59
1,2,3,7,8-PeCDF	162	1.77	7.94
2,3,4,7,8-PeCDF	61.7	1.73	7.94
1,2,3,4,7,8-HxCDF	341	10.1	7.94
1,2,3,6,7,8-HxCDF	91.3	9.93	7.94
2,3,4,6,7,8-HxCDF	48.1	12.1	7.94
1,2,3,7,8,9-HxCDF	59.7	12.5	7.94
1,2,3,4,6,7,8-HpCDF	473	1.18	7.94
1,2,3,4,7,8,9-HpCDF	279	1.50	7.94
OCDF	4762	1.78	15.9
2,3,7,8-TCDD	*	0.49	1.59
1,2,3,7,8-PeCDD	9.38	0.82	7.94
1,2,3,4,7,8-HxCDD	11.5	0.90	7.94
1,2,3,6,7,8-HxCDD	26.9	0.92	7.94
1,2,3,7,8,9-HxCDD	20.3	0.97	7.94
1,2,3,4,6,7,8-HpCDD	443	1.02	7.94
OCDD	6124	1.70	15.9
Internal Standard	% Recov	DB Qual	
% Recoveries			
13C-2,3,7,8-TCDF	57		
13C-1,2,3,7,8-PeCDF	50		
13C-2,3,4,7,8-PeCDF	59		
13C-1,2,3,4,7,8-HxCDF	58		
13C-1,2,3,6,7,8-HxCDF	44		
13C-2,3,4,6,7,8-HxCDF	45		
13C-1,2,3,7,8,9-HxCDF	57		
13C-1,2,3,4,6,7,8-HpCDF	51		
13C-1,2,3,4,7,8,9-HpCDF	68		
13C-2,3,7,8-TCDD	75		
13C-1,2,3,7,8-PeCDD	67		
13C-1,2,3,4,7,8-HxCDD	76		
13C-1,2,3,6,7,8-HxCDD	54		
3C-1,2,3,4,6,7,8-HpCDD	66		
13C-OCDD	79		

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Trace Metals in Tissues

ONR Data - Trace Metals in Tissue

Gergid	ONR ID	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
		5	1	0.1	0.5	0.5	5	5	1	0.5	0.5	1	2	2	0.5	0.5	0.1	0.5	0.5	0.02
C17713	STATION 14 ISOPOD	2430	38	0.8	17.3	188	3260	7140	2480	4.3	10.8	63	9	4	1690	23.6	0.6	1	2	0.09
C17714	STATION 17 MUSSEL	3420	12	0.7	18.2	73.8	7370	6910	457	8.3	17.8	75	53	3	189	39.6	3	1.3	6.9	0.1
C17715	STATION 17 ISOPOD	1930	18	0.5	24.5	108	1980	7220	1470	6.5	8.9	74	35	<2	1710	35.6	4.9	1.1	1.8	0.08
C17716	STATION 19 WORM	4580	19	0.9	20.4	23.6	34200	3700	2030	10.5	84.7	27	36	4	130	266	0.2	2.4	3.2	<0.02
C17717	STATION 35 STARFISH	6280	19	0.4	28.2	17.9	7410	14300	742	8.4	26.2	32	45	<2	914	10.9	3.7	2.4	0.6	0.04
C17718	STATION 15 ISOPOD	2300	31	0.2	21.8	195	3140	8410	2670	3.6	10.4	78	22	2	1910	38.7	0.8	6.6	1.8	0.1
C17719	STATION 35 MALDANIDAE	4310	19	0.3	10.8	9.6	10700	1540	5630	8.4	27.8	9	15	14	51.6	29.1	<0.1	1.7	0.5	0.02
C11948	STATION 16 ISOPODS	2470	13	<0.1	10.4	128	1820	5920	716	1.9	6.6	70	8	<2	1530	30	1.6	1.2	1.8	0.16
C11949	STATION 16 WORM TUBE	21200	368	3.2	48.3	23.6	105000	10900	20200	40.8	97.6	48	137	10	850	631	<0.1	5.8	<0.5	0.02
C11950	STATION 17 AMPHIPODS	1680	15	<0.1	10.4	87.4	2440	4720	220	3.3	6.4	82	12	<2	1130	5	0.7	9.5	1.7	0.07
C11953	STATION 10 LIVER	50	20	<0.1	<0.5	60	789	359	13	2.5	4.6	105	<2	<2	2.4	3.9	6.4	<0.5	6.1	1.96
C11955	STATION 24 LIVER	24	4	<0.1	<0.5	36.7	265	208	1	0.7	1.4	74	<2	<2	<0.5	2	0.6	<0.5	1.4	0.69
C11959	STATION 21 WORM TUBES	16200	67	1.7	28.8	11.2	69200	5660	1470	22.2	56.7	37	65	3	170	209	<0.1	6.5	<0.5	0.04
C11961	STATION 5 STURGEON LIVER #	55	8	<0.1	1	49.2	457	241	5	<0.5	1.6	96	<2	<2	0.9	5	0.5	<0.5	2.1	0.41
C11962	STATION 21-3 FISH LIVER	17	<1	<0.1	<0.5	14.3	343	592	7	<0.5	<0.5	104	<2	<2	6.2	6.9	0.2	<0.5	2.9	0.19
C11965	STATION 5 STURGEON LIVER	24	3	0.6	1.6	40.3	396	268	9	2	2.7	110	3	<2	1.5	4.3	0.5	<0.5	1.4	0.45
C16751	STATION 19 AMPHIPODS	416	9	<0.1	11.7	128	388	4800	135	1.3	3	103	8	<2	1140	41.1	1.8	4.8	1.8	0.07
C16752	STATION 20 BIVALVES	2940	13	0.1	19.9	28	5010	2680	1930	4.5	16.1	77	19	3	375	26.3	2.4	1.4	4.7	0.06
C16753	STATION 54 WORM-NEPHTHYS	9560	25	0.4	19.5	16.8	12000	4340	370	17.3	46.2	189	53	3	144	278	1.3	4.2	10.4	<0.02
C17712	STATION 20 WORM	5840	23	0.8	33	32.5	40300	4180	1480	10.7	77.4	38	39	3	144	223	0.2	3	3.2	<0.02

ONR Data - Trace Metals in Tissue

Gergid	ONR ID	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
	det. lim.->	5	1	0.1	0.5	0.5	5	5	1	0.5	0.5	1	2	2	0.5	0.5	0.1	0.5	0.5	0.02
QA																				
duplicates																				
C11955		24	4	<0.1	<0.5	36.7	265	208	1	0.7	1.40	74	<2	<2	<0.5	2.0	0.6	<0.5	1.4	
C11955-DUP		22	4	<0.1	<0.5	38.3	280	213	2	0.9	1.50	76	<2	<2	<0.5	1.8	0.6	<0.5	1.5	
rp		9	0			4	6	2	67	25	7	3				11	0		7	
C11962-MS		84	7	3.5	14.60	28.6	696	1280	45	14.6	14.8	178	41	43	26.3	14.4	2.0	3.4	123	
C11962-MSD		87	7	3.7	15.50	29.8	722	1320	46	15.0	15.6	182	44	46	29.6	14.5	2.0	3.5	125	
rp		4	0	6	6	4	4	3	2	3	5	2	7	7	12	1	0	3	2	
C17716																				<0.02
C17716-DUP																				<0.02
rp																				
C11949																				0.02
C11949-DUP																				0.02
rp																				0
matrix spikes																				
C11962		17	<1	<0.1	<0.5	14.3	343	592	7.00	<0.5	<0.5	104	<2	<2	6.2	6.9	0.20	<0.5	2.9	
C11962-MS		84	7	3.5	14.6	28.6	696	1280	45	14.6	14.8	178	41	43	26.3	14.4	2.0	3.4	123	
spk amt		84	8	4	17	17	418	837	42	17	17	84	42	42	23	8	2	4	126	
rec (%)		80	84	84	87	85	84	82	91	87	88	88	98	103	87	90	86	81	96	
C11962		17	<1	<0.1	<0.5	14.3	343	592	7	<0.5	<0.5	104	<2	<2	6.2	6.9	0.2	<0.5	2.9	
C11962-MSD		87	7	3.7	15.5	29.8	722	1320	46	15.0	15.6	182	44	46	29.6	14.5	2.0	3.5	125	
spk amt		84	8	4	17	17	420	840	42	17	17	84	42	42	23	8	2	4	126	
rec (%)		83	83	88	92	92	90	87	93	89	93	93	105	109	101	90	86	83	97	
C17719	STATION 35 MALDANIDAE																			0.02
C17719-MS	STATION 35 MALDANIDAE																			0.37
spk amt																				0.46
rec (%)																				76

ONR Data - Trace Metals in Tissue

Gergid	ONR ID	det. lim.->	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
C11953			5	1	0.1	0.5	0.5	5	5	1	0.5	0.5	1	2	2	0.5	0.5	0.1	0.5	0.5	0.02
C11953-MS																					1.96
spk amt																					2.23
rec (%)																					0.46
																					58
blank spikes																					
BS5B001			21	2	0.9	3.9	4.0	103	181	10	4.0	4.0	19	10	11	5.4	1.8	0.4	0.9	25.2	0.54
spk amt			20	2	1	4	4	100	200	10	4	4	20	10	10	6	2	1	1	30	0.50
rec (%)			105	100	90	98	100	103	91	100	100	100	95	100	110	98	90	80	90	84	108
BS5B002			20	2	0.9	3.7	3.9	103	180	10	4.0	3.9	19	10	11	5.5	1.7	0.4	0.9	25.6	0.42
spk amt			20	2	1	4	4	100	200	10	4	4	20	10	10	6	2	1	1	30	0.50
rec (%)			100	100	90	93	98	103	90	100	100	98	95	100	110	100	85	80	90	85	84
BS5B003			20	2	0.9	3.8	3.9	101	183	10	4.0	3.9	19	10	11	5.5	1.8	0.5	0.9	26.2	
rec (%)			100	100	90	95	98	101	92	100	100	98	95	100	110	100	90	100	90	87	
blanks																					
BLK5B001			<5	<1	<0.1	<0.5	<0.5	<5	<5	5	<0.5	<0.5	<1	<2	<2	<0.5	<0.5	<0.1	<0.5	<0.5	<0.02
BLK5B002			<5	<1	<0.1	<0.5	<0.5	<5	<5	<1	<0.5	<0.5	<1	<2	<2	<0.5	<0.5	<0.1	<0.5	<0.5	<0.02
BLK5B003			<5	<1	<0.1	<0.5	<0.5	<5	<5	<1	<0.5	<0.5	<1	<2	<2	<0.5	<0.5	<0.1	<0.5	<0.5	
SRM's																					
DORM-2 NRCC			10.9			34.7	2.34	142		3.66	19.4		25.6				18.0	0.04	0.07	1.40	
DORM25B001			10	2	<0.1	31.3	2.0	146	938	4	16.5	<0.5	24	<2	<2	1.6	18.1	<0.1	<0.5	1.4	
rec (%)			92			90	85	103		109	85		94				101			100	
DORM25B002			9	2	<0.1	31.0	2.1	142	932	3	16.2	<0.5	24	<2	<2	1.4	17.2	<0.1	<0.5	1.1	
rec (%)			83			89	90	100		82	84		94				96			79	
DORM25B003			13	1	<0.1	28.8	2.8	145	916	3	17.0	<0.5	23	5	4	3.0	16.5	<0.1	<0.5	1.2	
rec (%)			119			83	120	102		82	88		90				92			86	

ONR Data - Trace Metals in Tissue

Gergid	ONR ID	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
		5	1	0.1	0.5	0.5	5	5	1	0.5	0.5	1	2	2	0.5	0.5	0.1	0.5	0.5	0.02
		det. lim.->																		
DORM-1 NRCC																				0.798
DORM-1-1																				0.73
rec (%)																				91
DORM-1-2																				
rec (%)																				0.77
																				96

Monitoring Industrial Contaminants Release to Russian Arctic Rivers
Analytical Laboratory Quality Assurance Report

Trace Metals in Sediments

ONR Siberian Data - Trace Metals in Sediment

Gergid	ONR ID	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
	det. lim.->	10	1	0.2	1	1	10	10	5	5	1	5	10	5	5	0.5	0.2	5	1	0.02
12906	STATION 5	32900	146	1.8	61	51	40200	14600	722	59	92	86	10	<5	168	3.3	0.2	7	<1	0.02
12908	STATION 12	31200	80	1.5	55	39	39000	13600	1390	53	85	83	20	<5	146	5.7	<0.2	7	<1	0.05
12909	STATION 14	18400	41	1	36	21	27900	8510	1480	33	72	51	20	<5	79	9.3	<0.2	5	<1	0.05
12910	STATION 25	5730	23	0.4	6	3	9700	1840	123	11	31	16	<10	<5	28	2.2	<0.2	<5	<1	<0.02
12911	STATION 21	11300	27	0.9	24	10	22100	4640	690	19	45	35	30	<5	42	12.6	<0.2	6	<1	0.05
12912	STATION 58	24300	145	1.6	48	20	37300	7690	1350	45	58	78	<10	<5	51	8	0.3	14	<1	0.05
12913	STATION 59	28900	140	1.9	58	23	40200	8750	1290	48	83	86	<10	<5	50	7.4	0.2	13	<1	0.05
12914	STATION 60	23500	150	1.7	47	21	35500	7200	1140	43	64	73	<10	<5	50	6.8	0.2	13	<1	0.03
12915	STATION 61	17900	63	2.2	38	20	21900	6270	303	38	52	61	20	<5	42	4.8	0.2	10	<1	0.03
12916	STATION 62	18400	71	1.4	36	18	35600	6490	1520	33	59	56	20	<5	49	13.1	<0.2	11	<1	0.04
12917	STATION 20	14800	26	1	31	15	28000	5860	1260	24	79	44	50	<5	41	19.5	<0.2	9	<1	<0.02
12918	STATION 35	12000	18	0.6	23	12	21200	4950	1170	20	63	33	30	<5	36	12.8	<0.2	7	<1	<0.02
12919	STATION 40	720	4	<0.2	<1	<1	1700	450	77	<5	7	<5	<10	<5	<5	2.4	<0.2	<5	<1	<0.02
12920	STATION 45	17300	42	1.2	37	20	35100	7810	6220	38	121	62	50	9	63	44.1	<0.2	10	<1	<0.02
12923	STATION 75	4050	9	<0.2	7	3	7650	1680	555	7	26	13	10	<5	15	7.1	<0.2	<5	<1	<0.02
12924	STATION 77	18800	38	1.1	40	20	27700	7610	429	33	82	57	40	<5	39	8.5	<0.2	9	<1	<0.02
13766	STATION 9	31400	127	1.3	57	43	40500	13000	932	54	89	82	<10	<5	142	5.3	0.2	9	<1	0.05
13767	STATION 16	38100	63	1.9	74	47	57600	16600	4690	62	145	104	60	<5	114	32.6	<0.2	14	<1	0.04
13768	STATION 22	34900	68	2.9	68	50	50900	15600	5840	61	123	99	50	10	117	18.9	<0.2	14	<1	0.04
13769	STATION 27	19100	35	1.1	39	24	31000	8290	1960	35	75	54	30	<5	65	11.2	<0.2	9	<1	0.03
13770	STATION 29	6780	14	0.2	12	6	11200	2870	380	12	31	18	10	<5	28	4.7	<0.2	<5	<1	0.02
13771	STATION 32	3950	11	<0.2	7	2	8410	2010	804	10	31	11	<10	<5	22	4.1	<0.2	<5	<1	<0.02
13772	STATION 36	19800	62	1.3	41	25	41900	8950	12700	41	122	60	70	10	106	48	<0.2	10	<1	0.02
13773	STATION 38	26900	46	3.2	57	33	50000	12000	5010	50	162	82	90	9	78	38.7	<0.2	14	<1	0.02
13774	STATION 41	9020	15	0.6	19	10	15600	3740	641	17	65	28	30	<5	24	10.2	<0.2	6	<1	0.02
13775	STATION 42	23800	41	1.4	45	23	41600	9970	3610	43	152	71	70	6	62	36.2	<0.2	12	<1	0.02
13777	STATION 48	12100	18	0.6	24	13	19500	4940	353	23	81	38	40	<5	24	8.4	<0.2	7	<1	0.02
13778	STATION 49	12100	16	0.7	24	16	22100	4900	230	25	68	37	30	20	23	26.8	<0.2	<5	<1	0.02
13779	STATION 51	22300	35	1.3	46	25	39700	9900	1640	40	138	68	70	<5	49	16.1	<0.2	11	<1	0.03
13780	STATION 53	5450	10	<0.2	10	6	11000	2370	252	10	33	17	20	<5	17	8.6	<0.2	<5	<1	0.02
13781	STATION 54	6040	12	0.2	13	6	13400	2670	1030	11	43	18	20	<5	26	12.1	<0.2	<5	<1	0.02
13782	STATION 55	7790	13	0.4	15	9	15500	3410	617	15	57	25	30	<5	23	11.9	<0.2	<5	<1	0.02
13783	STATION 56	6210	13	0.2	13	6	12100	2590	575	10	41	19	20	<5	21	13.9	<0.2	<5	<1	0.03
13784	STATION 57	23000	124	2.8	51	21	33900	6880	968	42	55	74	10	<5	45	5.8	<0.2	8	<1	0.05
13785	STATION 76	7130	13	0.5	18	10	10900	3080	199	14	46	24	20	<5	18	7.1	<0.2	7	<1	0.02
16679	STATION 8A	25500	56	1.1	49	34	34700	10600	440	44	80	69	10	<5	83	5.4	<0.2	9	<1	0.03
16684	STATION 10	3020	22	<0.2	7	4	7040	1060	472	8	21	10	<10	<5	14	1.6	<0.2	<5	<1	<0.02
16701	STATION 17	32400	47	1.9	65	35	57500	13200	2560	49	165	90	80	<5	79	47.2	<0.2	15	<1	0.03

ONR Siberian Data - Trace Metals in Sediment

Gergid	ONR ID	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
	det. lim.->	10	1	0.2	1	1	10	10	5	5	1	5	10	5	5	0.5	0.2	5	1	0.02
16702	STATION 18	1500	7	<0.2	3	2	4280	840	425	<5	13	6	<10	<5	9	5.6	<0.2	<5	<1	0.02
16704	STATION 19	19400	38	1.1	39	19	35100	7670	3760	32	110	57	60	<5	62	31.3	<0.2	7	<1	0.02
16718	STATION 33	17400	32	2.2	35	18	23200	6570	370	29	67	47	20	<5	52	7.2	<0.2	7	<1	0.03
16732	STATION 44	26600	73	2.2	54	29	49000	10600	6790	56	180	87	80	11	83	50.5	<0.2	15	<1	0.02

ONR Siberian Data - Trace Metals in Sediment

Gergid	ONR ID	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
QA	det. lim.->	10	1	0.2	1	1	10	10	5	5	1	5	10	5	5	0.5	0.2	5	1	0.02
duplicates																				
12906	STATION 5	32900	146	1.8	61	51	40200	14600	722	59	92	86	10	<5	168	3.3	0.2	7	<1	0.02
12906-DUP	STATION 5	33100	143	1.6	60	51	39800	14600	677	57	91	86	<10	<5	170	3.8	0.3	9	<1	
rpd		1	2	12	2	0	1	0	6	3	1	0			1	14	40	25		
12915	STATION 61																			0.04
12915-DUP	STATION 61																			0.04
rpd																				0
13771	STATION 32	3950	11	<0.2	7	2	8410	2010	804	10	31	11	<10	<5	22	4.1	<0.2	<5	<1	<0.02
13771-DUP	STATION 32	3790	10	<0.2	8	3	8800	1950	818	12	33	12	10	<5	22	4	<0.2	<5	<1	<0.02
rpd		4	10		13	40	5	3	2	18	6	9			0	2				
16732	STATION 44	26600	73	2.2	54	29	49000	10600	6790	56	180	87	80	11	83	51	<0.2	15	<1	0.02
16732-DUP	STATION 44	25500	70	2.1	51	26	49300	10600	6940	52	177	87	80	7	82	52	<0.2	14	<1	
rpd		4	4	5	6	11	1	0	2	7	2	0	0	44	1	3		7		
matrix spikes																				
12906	STATION 5	32900	146	1.8	61	51	40200	14600	722	59	92	86	10	<5	168	3.3	0.2	7	<1	0.02
12906-MS	STATION 5	35100	246	12	113	100	41000	14900	1200	249	190	321	480	222	424	14	4.6	16	42	0.15
spk amt		not spk'd	96	10	48	48	not spk'd	not spk'd	481	192	96	241	481	241	241	12	5	12	48	0.14
rec (%)		104	101	108	102	102			99	99	102	98	98	92	106	90	91	75	87	95
12916	STATION 62																			0.04
12916-MS	STATION 62																			0.17
spk amt																				0.14
rec (%)																				93
13771	STATION 32	3950	11	<0.2	7	2	8410	2010	804	10	31	11	<10	<5	22	4.1	<0.2	<5	<1	<0.02
13771-MS	STATION 32	4220	113	10	60	53	7860	2000	1310	226	131	271	550	263	278	16	4.7	14	46	
spk amt		not spk'd	98	10	49	49	not spk'd	not spk'd	490	196	98	245	490	245	245	12	5	12	49	
rec (%)		104	106	108	104	104			103	110	102	106	112	107	104	100	96	114	94	
16732	STATION 44	26600	73	2.2	54	29	49000	10600	6790	56	180	87	80	11	83	51	<0.2	15	<1	0.02
16732-MS	STATION 44	27200	171	12	102	75	49600	10600	7370	255	276	334	570	231	330	64	4.4	27	49	
spk amt		not spk'd	98	10	49	49	not spk'd	not spk'd	491	196	98	245	491	245	245	12	5	12	49	
rec (%)		100	98	98	98	94			118	101	98	101	100	90	101	112	90	98	100	

ONR Siberian Data - Trace Metals in Sediment

Gergid	ONR ID det. lim.->	Al	Ba	Be	Cr	Cu	Fe	Mg	Mn	Ni	V	Zn	B	Mo	Sr	As	Cd	Pb	Se	Hg
		10	1	0.2	1	1	10	10	5	5	1	5	10	5	5	0.5	0.2	5	1	0.02
blank spikes																				
BS-001		<10	209	21	105	105	<10	<10	1050	428	204	522	1090	548	512	25	7	22	90	0.60
spk amt		not spk'd	200	20	100	100	not spk'd	not spk'd	1000	400	200	500	1000	500	500	25	10	25	100	0.50
rec (%)			105	103	105	105			105	107	102	104	109	110	102	98	71	88	90	120
BS-002		<10	208	20	104	104	<10	<10	1040	429	202	523	1080	546	512	22	9	25	94	0.50
spk amt		not spk'd	200	20	100	100	not spk'd	not spk'd	1000	400	200	500	1000	500	500	25	10	25	100	0.50
rec (%)			104	102	104	104			104	107	101	105	108	109	102	89	93	100	94	100
BS-003		<10	207	20	103	103	10	<10	1040	424	201	515	1090	524	519	23	9	21	90	0.47
spk amt		not spk'd	200	20	100	100	not spk'd	not spk'd	1000	400	200	500	1000	500	500	25	10	25	100	0.50
rec (%)			104	101	103	103			104	106	101	103	109	105	104	92	92	84	90	94
blanks																				
BLK-001		<10	<1	<0.2	<1	<1	<10	<10	<5	<5	<1	<5	<10	<5	<5	<0.5	<0.2	<5	<1	<0.02
BLK-002		<10	<1	<0.2	<1	<1	<10	<10	<5	<5	<1	<5	<10	<5	<5	<0.5	<0.2	<5	<1	<0.02
BLK-003		<10	<1	<0.2	<1	<1	<10	<10	<5	<5	<1	<5	<10	<5	<5	<0.5	<0.2	<5	<1	<0.02
SRM's																				
MESS-2 NRCC		85737		2.32	106.0	39.3	43505		365	49.3	252	172		2.85	125	20.7	0.24	21.9	0.72	0.092
MESS-001		16900	307	2	30	40	34700	13200	351	49	67	147	40	<5	68	17	0.2	17	<1	0.10
rec (%)		20		65	28	102	80		96	99	27	85			54	80	83	78		109
MESS-002		18100	306	2	32	40	33600	12900	332	50	70	145	40	<5	67	17	0.3	18	<1	0.08
rec (%)		21		69	30	102	77		91	101	28	84			54	82	125	82		87
MESS-003		16600	291	2	28	38	33300	12700	335	49	66	144	30	<5	67	19	0.2	18	<1	0.09
rec (%)		19		65	26	97	77		92	99	26	84			54	90	83	82		98
SRM CV (%)		4.6	3.0	3.8	6.7	2.9	2.2	1.9	3.0	1.2	3.1	1.1	15.7		0.9	6.6	24.7	3.3		11.1