N00213.AR.000307
NAS KEY WEST
5090.3a

LETTER OF TRANSMITTAL FOR INNER HARBOR SEDIMENT SAMPLING REPORT WITH ATTACHMENTS NAS KEY WEST FL
9/15/1998
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

RECEIVED 9-24-98

0014

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
SANCTUARIES & RESERVES DIVISION
Florida Keys National Marine Sanctuary
P.O. Box 500368
Marathon, FL 33050

(305) 743-2437 Voice (305) 743-2357 Fax
bcausey@ocean.nos.noaa.gov E-MAIL

September 15, 1998

David L. Porter, P.E.
Department of the Navy, Southern Division
Naval Facilities Engineering Command
PO Box 190010
2155 Eagle Drive
North Charleston, S.C. 29419-9010

Dear Mr. Porter:

This is in response to your letter to the Florida Keys National Marine Sanctuary dated 20 July 1998 regarding the transfer of BRAC property Building 112, 113 and approximately five acres (3.5 acres) of land located at the Truman Annex. We have reviewed the EBST and the ESS and concur with the Navy's classification of the land parcel as 3/Light Green (area where a release, disposal, or migration (from offsite) of a hazardous substance has occurred, but at concentrations that do not require a removal or remedial action). We, therefore, wish for you to continue with the transfer process of the subject property from the Department of the Navy to the Department of Commerce.

We have also included, as per your request, a copy of the sampling report that NOAA conducted in the inner harbor in August of 1997 for your review of the sediments found at that time. The Department of Commerce (NOAA HAZMAT Division) has an MOU with the Department of Defense to assist with hazmat planning and testing of areas across the country similar to the inner harbor and at this time we would like to offer our assistance with any further planning and/or testing needed in the basin. Please feel free to call our HAZMAT contact in Seattle, Michael Buchman (206-526-6340), who is familiar with this project and is available to assist you.

Again, thank you for your continued assistance in this important transfer process. Please contact Linda Cramer at 305-743-2437 X22 for any questions you may have.

Sincerely,

Billy D. Causey
Sanctuary Superintendent

Enclosure:
NOAA Florida Keys (SDG 7C496) Final Report

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean Resources Conservation and Assessment
Silver Spring, Maryland 20910

July 1, 1998

RECEIVED
JUL - 6 1998
FL KEYS NAT'L MAR. SANC.

MEMORANDUM FOR: Cecile Daniels
FKNMS-LR Office

FROM: Bernard W. Gotholm
Oceanographer, CMBAD

SUBJECT: Report on Samples Collected During August, 1997

I have enclosed a copy of the report that we received from our contractor. It gives the results of the analysis done on the two samples collected in August 1997, referenced as FKNMS-1 and FKNMS-2. I am also enclosing a separate email that we received regarding the TBT data results. To give you an idea of where the values lie with regards to other NS&T sites I have enclosed a few reference documents. If you have any further questions please feel free to give me a call at 301/713-3034 x168.

I look forward to seeing you at the end of July and if you are available, I'll treat for lunch on Friday the 31st.

cc: N/ORCA2 - A. Robertson

Printed on Recycled Paper

To:	M@H@C[<Gunnar.Lauenstein@noaa.gov>]
cc:	M@H@C[<duck@gergl1.tamu.edu>]
bcc:	Gunnar Lauenstein@CMBAD@NORCA
From:	"Terry L. Wade" <Terry@gergl1.tamu.edu>
Forwarded By:	
Subject:	TBT Data
Attach:	
Certify:	N
Date:	Friday, June 19, 1998 11:37 AM
Reply To:	M@H@C[<Terry@gergl1.tamu.edu>]

Gunnar:

Sorry I forgot to include the TBT data with the Florida Keys Report. I will send you the TBT data today. The concentrations are FKNMS-1, TBT= 5.46, DBT 6.03, MBT=ND. FKNMS-2, TBT = 3.44, DBT = 5.45, MBT =ND. The Cu is also high in these samples. Interesting "Hot Spot".

Terry

Terry L. Wade
Geochemical and Environmental Research Group
833 Graham RD.
College Station TX 77845
Phone:409-862-2323 EX 134
FAX: 409-862-2361

FE-97-16-FB

Florida Keys - Dry Tortugas

MacroBenthic Station Data Sheet

Station: ~~NOAA97~~

Obs:

Date (MM/DD/YY): 08/02/97

DOMINANT TYPE					DOMINANT COLOR					ODOR					SURFACE BIOLOGY				
Replicate #	1	2	3	4	Replicate #	1	2	3	4	Replicate #	1	2	3	4	Replicate #	1	2	3	4
Silt	☐	☐	☐	☐	Black	☐	☐	☐	☐	Sulfur	☐	☐	☐	☐	None	☒	☒	☒	☐
Clay	☐	☐	☐	☐	Brown	☐	☐	☐	☐	Oily	☐	☐	☐	☐	Worms/Tubes	☐	☐	☐	☐
Mud	☐	☐	☐	☐	Gray	☒	☒	☒	☐	Sewage	☐	☐	☐	☐	Molluscs	☐	☐	☐	☐
Sticky Mud	☒	☒	☒	☐	Green	☐	☐	☐	☐	None	☒	☒	☒	☐	Crustacea	☐	☐	☐	☐
Sand	☒	☒	☒	☐	Rust	☐	☐	☐	☐						SAV**	☐	☐	☐	☐
Shell/Rocks	☐	☐	☐	☐	Oily	☐	☐	☐	☐						Algae	☐	☐	☐	☐
Detritus	☐	☐	☐	☐															
Other*	☐	☐	☐	☐	Other*	☐	☐	☐	☐	Other*	☐	☐	☐	☐	Other*	☐	☐	☐	☐

* if Other is checked - describe below in comments section

** Submerged Aquatic Vegetation

REPLICATE 1	REPLICATE 2	REPLICATE 3	SEDIMENT CHARACTERIZATION	
Sampling Time (GMT) 1325 GMT ~~0925~~	Sampling Time (GMT) 1331 ~~0931~~	Sampling Time (GMT) 1340 ~~0940~~	Silt/Clay	TOC
LAT 24° 33.105 LONG 81° 48.481	LAT 24° 33.085 LONG 081° 48 485	LAT 24° 33.100 LONG 081° 48.474	LAT LONG	
Water Depth 32 ft	Water Depth 32 ft	Water Depth 32 ft	Water Depth	
Sample Depth (cm)	Sample Depth (cm)	Sample Depth (cm)		
Sieve Time (GMT)	**Sieve Time (GMT)**	**Sieve Time (GMT)**		
NOAA97 ____ BG001-01	NOAA97 ____ BG002-01	NOAA97 ____ BG003-01	NOAA97 ____	NOAA97 ____
Total # of sample jars 500 ml ____ 2500 ml* ____	Total # of sample jars 500 ml ____ 2500 ml* ____	Total # of sample jars 500 ml ____ 2500 ml* ____		

☐ CTD CAST LAT ____

☐ YSI LONG ____

COMMENTS: Truman Annex Cecilé 292-0311 (305)

off 1st Piling - entrance to ramp

FE-97-16-FB

Florida Keys - Dry Tortugas

MacroBenthic Station Data Sheet

Station: ~~NOAA97~~ 7

Obs:

Date (MM/DD/YY): 8-2-97

DOMINANT TYPE	Replicate #1	2	3	4
Silt	☐	☐	☐	☐
Clay	☐	☒	☒	☐
Mud	☐	☐	☐	☐
Sticky Mud	☐	☐	☐	☐
Sand – Gray	☒	☐	☐	☐
Shell/Rocks	☐	☐	☐	☐
Detritus	☐	☐	☐	☐
Other*	☐	☐	☐	☐

DOMINANT COLOR	Replicate #1	2	3	4
Black	☐	☐	☐	☐
Brown	☐	☐	☐	☐
Gray	☐	☐	☐	☐
Green	☐	☐	☐	☐
Rust	☐	☐	☐	☐
Oily	☐	☐	☐	☐
Other*	☐	☐	☐	☐

ODOR	Replicate #1	2	3	4
Sulfur	☐	☒	☒	☐
Oily	☐	☐	☐	☐
Sewage	☐	☐	☐	☐
None	☐	☐	☐	☐
Other*	☐	☐	☐	☐

SURFACE BIOLOGY	Replicate #1	2	3	4
None	☐	☐	☐	☐
Worms/Tubes	☐	☐	☐	☐
Molluscs	☐	☐	☐	☐
Crustacea	☐	☐	☐	☐
SAV**	☐	☐	☐	☐
Algae	☐	☐	☐	☐
Other*	☐	☐	☐	☐

* if Other is checked - describe below in comments section

** Submerged Aquatic Vegetation

REPLICATE 1	REPLICATE 2	REPLICATE 3	SEDIMENT CHARACTERIZATION	
Sampling Time (GMT) 1411 GMT ~~1011~~	Sampling Time (GMT) 1421 ~~1021~~	Sampling Time (GMT) 1433 ~~1033~~	Silt/Clay	TOC
LAT 24°33.059	LAT 24°33.084	LAT 24°33.090	LAT	
LONG 081°48.470	LONG 081°48.495	LONG 081°48.495	LONG	
Water Depth ~~26~~ 33 ft	Water Depth 33 ft	Water Depth 33 ft	Water Depth	
Sample Depth (cm)	Sample Depth (cm)	Sample Depth (cm)		
Sieve Time (GMT)	**Sieve Time (GMT)**	**Sieve Time (GMT)**		
NOAA97 ____ BG001-01	NOAA97 ____ BG002-01 Slightly mixed slope	NOAA97 ____ BG003-01	NOAA97 ____	NOAA97 ____
Total # of sample jars 500 ml ____ 2500 ml* ____	Total # of sample jars 500 ml ____ 2500 ml* ____	Total # of sample jars 500 ml ____ 2500 ml* ____		

☐ CTD CAST LAT

☐ YSI LONG

COMMENTS: SAMPLE #2 off wooden dock Cecile 242-0311 (305)

Rep #2 slightly moved from rep #1 due to slope (>10 ft)

TEXAS A&M UNIVERSITY
Geochemical and Environmental Research Group
College of Geosciences and Maritime Studies

NOAA

Florida Keys
(SDG 7C496)

Final Report

TECHNICAL REPORT 98-060

GERG
833 Graham Road • College Station, Texas 77845-9668 • MS 3149 • (409) 862-2323; FAX (409) 862-2361
http://www.gerg.tamu.edu
Internet: director@gerg.tamu.edu

Aromatic Hydrocarbon Data

Florida Keys

Client Sample ID	FKNMS-1	FKNMS-2
Sample Descriptor		
Original Sample		
GERG ID	C28564	C28565
Sample Type	SAMP	SAMP
SDG	7C496	7C496
Dry Weight	8.43	10.49
Wet Weight	20.11	20.07
Sample Size Units	Grams	Grams
Matrix	Sediment	Sediment
% solid	41.9	52.3
% Lipid		
Reporting Units	ng/g	ng/g
Calculation Basis (dry/wet)	Dry	Dry
QC Batch ID	M2711	M2711
Method	GCMS	GCMS
Collection Date		
Receive Date	12/18/97	12/18/97
Extraction Date	2/9/98	2/9/98
Analysis Date	Feb-0-98	2/20/98
Surrogate Compounds	**%Recovery**	**%Recovery**
d8-Naphthalene	55.9	55.6
d10-Acenaphthene	118.5	112.2
d10-Phenanthrene	103.3	85.9
d12-Chrysene	107.0	75.4
d12-Perylene	74.9	111.2
Total PAHs	**Concentration**	**Concentration**
Total PAHs with Perylene	8817.0	15561.3
Total PAHs without Perylene	8693.3	15389.6
Total NS&T PAHs	3892.5	6919.1

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID	FKNMS-1	FKNMS-2
Sample Descriptor		
Original Sample		
GERG ID	C28564	C28565
Sample Type	SAMP	SAMP
SDG	7C496	7C496

PAH Compounds	Concentration	Concentration
Naphthalene	19.3	11.1
C1-Naphthalenes	18.6	10.6
C2-Naphthalenes	22.8	14.2
C3-Naphthalenes	26.9	14.2
C4-Naphthalenes	17.1	20.9
Biphenyl	2.0	1.3
Acenaphthylene	178.1	368.1
Acenaphthene	11.2	8.1
Fluorene	17.8	21.3
C1-Fluorenes	26.4	46.3
C2-Fluorenes	26.2	15.5
C3-Fluorenes	27.9	27.4
Phenanthrene	116.1	128.7
Anthracene	322.3	777.8
C1-Phenanthrenes/Anthracenes	110.2	161.6
C2-Phenanthrenes/Anthracenes	84.4	107.7
C3-Phenanthrenes/Anthracenes	63.6	79.7
C4-Phenanthrenes/Anthracenes	198.7	383.1
Dibenzothiophene	5.2	3.8
C1-Dibenzothiophenes	8.4	5.8
C2-Dibenzothiophenes	25.2	16.7
C3-Dibenzothiophenes	20.7	22.6
Fluoranthene	404.8	308.4
Pyrene	362.0	344.9
C1-Fluoranthenes/Pyrenes	325.0	680.9
Benzo(a)anthracene	546.6	954.3
Chrysene	383.1	971.2
C1-Chrysenes	545.5	1075.1
C2-Chrysenes	364.0	566.6
C3-Chrysenes	23.3	17.1
C4-Chrysenes	33.6	55.6
Benzo(b)fluoranthene	1396.3	2196.5
Benzo(k)fluoranthene	157.0	774.5
Benzo(e)pyrene	470.8	987.0
Benzo(a)pyrene	823.4	1741.5
Perylene	123.7	171.7
Indeno(1,2,3-c,d)pyrene	707.7	1156.8
Dibenzo(a,h)anthracene	228.0	375.5
Benzo(g,h,i)perylene	573.4	937.6
2-Methylnaphthalene	11.9	6.6
1-Methylnaphthalene	6.6	4.0
2,6-Dimethylnaphthalene	5.4	3.5
1,6,7-Trimethylnaphthalene	1.0	1.4
1-Methylphenanthrene	37.4	102.3

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID		FKNMS-1	FKNMS-1
Sample Descriptor	Proc Blank		Duplicate
Original Sample			C28564
GERG ID	Q15641	C28564	Q15646
Sample Type	BLANK	SAMP	DUP
SDG		7C496	7C496
Dry Weight	10.00	8.43	8.36
Wet Weight		20.11	20.22
Sample Size Units	Grams	Grams	Grams
Matrix		Sediment	Sediment
% solid		41.9	43.0
% Lipid			
Reporting Units	ng/g	ng/g	ng/g
Calculation Basis (dry/wet)	Dry	Dry	Dry
QC Batch ID	M2711	M2711	M2711
Method	GCMS	GCMS	GCMS
Collection Date			
Receive Date		12/18/97	12/18/97
Extraction Date	2/9/98	2/9/98	2/9/98
Analysis Date	2/20/98	2/20/98	2/20/98
Surrogate Compounds	**% Recovery**	**% Recovery**	**% Recovery**
d8-Naphthalene	104.0	55.9	43.6
d10-Acenaphthene	109.2	118.5	118.7
d10-Phenanthrene	104.6	103.3	100.3
d12-Chrysene	98.3	107.0	92.2
d12-Perylene	60.6	74.9	102.3

Total PAHs	**Concentration**	**Concentration**	**Concentration**	**%RPD**
Total PAHs with Perylene	19.9	8817.0	8890.1	0.8
Total PAHs without Perylene	19.8	8693.3	8738.5	0.5
Total NS&T PAHs	4.6	3892.5	3896.0	0.1

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID		FKNMS-1	FKNMS-1
Sample Descriptor	Proc Blank		Duplicate
Original Sample			C28564
GERG ID	Q15641	C28564	Q15646
Sample Type	BLANK	SAMP	DUP
SDG		7C496	7C496

PAH Compounds	Concentration		Concentration	Concentration	%RPD
Naphthalene	1.0	J	19.3	19.5	
C1-Naphthalenes	1.1	J	18.6	22.6	
C2-Naphthalenes	0.8	J	22.8	26.6	15.4
C3-Naphthalenes	1.2	J	26.9	26.7	0.8
C4-Naphthalenes	1.0	J	17.1	22.5	27.2
Biphenyl	0.6	<3xMDL	2.0	2.3	
Acenaphthylene	0.1	J	178.1	164.2	8.1
Acenaphthene	0.1	J	11.2	9.1	21.6
Fluorene	0.1	J	17.8	17.1	3.9
C1-Fluorenes	0.5	J	26.4	26.3	0.2
C2-Fluorenes	0.6	J	26.2	27.3	4.1
C3-Fluorenes	4.0	<3xMDL	27.9	28.8	3.4
Phenanthrene	0.7	J	116.1	91.4	23.8
Anthracene	0.1	J	322.3	347.8	7.6
C1-Phenanthrenes/Anthracenes	0.6	J	110.2	107.6	2.4
C2-Phenanthrenes/Anthracenes	0.9	<3xMDL	84.4	81.9	3.1
C3-Phenanthrenes/Anthracenes	0.6	J	63.6	63.6	0.0
C4-Phenanthrenes/Anthracenes	0.5	J	198.7	200.0	0.7
Dibenzothiophene	0.0	J	5.2	4.7	
C1-Dibenzothiophenes	0.1	J	8.4	7.9	
C2-Dibenzothiophenes	0.3	J	25.2	26.3	4.5
C3-Dibenzothiophenes	0.3	J	20.7	26.0	22.9
Fluoranthene	0.1	J	404.8	337.8	18.1
Pyrene	0.1	J	362.0	328.8	9.6
C1-Fluoranthenes/Pyrenes	0.4	J	325.0	310.8	4.5
Benzo(a)anthracene	0.2	J	546.6	550.4	0.7
Chrysene	0.0	J	383.1	375.1	2.1
C1-Chrysenes	0.3	J	545.5	539.5	1.1
C2-Chrysenes	0.7	J	364.0	346.9	4.8
C3-Chrysenes	0.3	J	23.3	22.9	
C4-Chrysenes	2.4	<3xMDL	33.6	32.7	2.8
Benzo(b)fluoranthene	0.1	J	1396.3	1502.2	7.3
Benzo(k)fluoranthene	0.0	J	157.0	162.3	3.4
Benzo(e)pyrene	0.1	J	470.8	474.4	0.7
Benzo(a)pyrene	0.0	J	823.4	914.3	10.5
Perylene	0.0	J	123.7	151.6	20.3
Indeno(1,2,3-c,d)pyrene	0.0	J	707.7	702.6	0.7
Dibenzo(a,h)anthracene	0.0	J	228.0	212.3	7.1
Benzo(g,h,i)perylene	0.0	J	573.4	575.3	0.3
2-Methylnaphthalene	0.7	J	11.9	14.6	
1-Methylnaphthalene	0.4	J	6.6	8.1	
2,6-Dimethylnaphthalene	0.2	J	5.4	5.0	
1,6,7-Trimethylnaphthalene	0.1	J	1.0	2.2	
1-Methylphenanthrene	0.2	J	37.4	36.5	2.4
				Average %RPD	**7.2**

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID	FKNMS-1	FKNMS-1	FKNMS-1
Sample Descriptor		Matrix Spike	Matrix Spike Dup
Original Sample		C28564	C28564
GERG ID	C28564	Q15644	Q15645
Sample Type	SAMP	MS	MSD
SDG	7C496	7C496	7C496
Dry Weight	8.43	8.36	8.48
Wet Weight	20.11	20.03	20.07
Sample Size Units	Grams	Grams	Grams
Matrix	Sediment	Sediment	Sediment
% solid	41.9	41.7	42.3
% Lipid			
Reporting Units	ng/g	%	%
Calculation Basis (dry/wet)	Dry	Dry	Dry
QC Batch ID	M2711	M2711	M2711
Method	GCMS	GCMS	GCMS
Collection Date			
Receive Date	12/18/97	12/18/97	12/18/97
Extraction Date	2/9/98	2/9/98	2/9/98
Analysis Date	2/20/98	2/20/98	2/20/98
Surrogate Compounds	**% Recovery**	**% Recovery**	**% Recovery**
d8-Naphthalene	55.9	51.5	59.9
d10-Acenaphthene	118.5	109.2	112.2
d10-Phenanthrene	103.3	76.5	97.1
d12-Chrysene	107.0	94.5	114.1
d12-Perylene	74.9	100.8	112.6
Total PAHs	**Concentration**	**Concentration**	**Concentration**
Total PAHs with Perylene	8817.0	NA	NA
Total PAHs without Perylene	8693.3	NA	NA
Total NS&T PAHs	3892.5	NA	NA

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID	FKNMS-1	FKNMS-1	FKNMS-1
Sample Descriptor		Matrix Spike	Matrix Spike Dup
Original Sample		C28564	C28564
GERG ID	C28564	Q15644	Q15645
Sample Type	SAMP	MS	MSD
SDG	7C496	7C496	7C496

PAH Compounds	Concentration	% Recovery		% Recovery		%RPD	
Naphthalene	19.3	118.3		111.7		5.8	
C1-Naphthalenes	18.6		NA		NA		NA
C2-Naphthalenes	22.8		NA		NA		NA
C3-Naphthalenes	26.9		NA		NA		NA
C4-Naphthalenes	17.1		NA		NA		NA
Biphenyl	2.0	65.4		71.6		9.1	
Acenaphthylene	178.1	72.9	M	85.8	M		M
Acenaphthene	11.2	113.6		108.1		5.0	
Fluorene	17.8	56.7		62.5		9.7	
C1-Fluorenes	26.4		NA		NA		NA
C2-Fluorenes	26.2		NA		NA		NA
C3-Fluorenes	27.9		NA		NA		NA
Phenanthrene	116.1	52.7	M	90.7	M		M
Anthracene	322.3	0.0	M	437.4	M		M
C1-Phenanthrenes/Anthracenes	110.2		NA		NA		NA
C2-Phenanthrenes/Anthracenes	84.4		NA		NA		NA
C3-Phenanthrenes/Anthracenes	63.6		NA		NA		NA
C4-Phenanthrenes/Anthracenes	198.7		NA		NA		NA
Dibenzothiophene	5.2	113.7		79.0		36.1	Q
C1-Dibenzothiophenes	8.4		NA		NA		NA
C2-Dibenzothiophenes	25.2		NA		NA		NA
C3-Dibenzothiophenes	20.7		NA		NA		NA
Fluoranthene	404.8	229.5	M	292.8	M		M
Pyrene	362.0	208.6	M	98.7	M		M
C1-Fluoranthenes/Pyrenes	325.0		NA		NA		NA
Benzo(a)anthracene	546.6	220.2	M	0.0	M		M
Chrysene	383.1	81.6	M	0.0	M		M
C1-Chrysenes	545.5		NA		NA		NA
C2-Chrysenes	364.0		NA		NA		NA
C3-Chrysenes	23.3		NA		NA		NA
C4-Chrysenes	33.6		NA		NA		NA
Benzo(b)fluoranthene	1396.3	116.2	M	92.5	M		M
Benzo(k)fluoranthene	157.0	89.1	M	79.1	M		M
Benzo(e)pyrene	470.8	101.8	M	71.6	M		M
Benzo(a)pyrene	823.4	166.9	M	90.9	M		M
Perylene	123.7	80.7	M	80.7	M		M
Indeno(1,2,3-c,d)pyrene	707.7	102.3	M	84.0	M		M
Dibenzo(a,h)anthracene	228.0	93.5	M	99.2	M		M
Benzo(g,h,i)perylene	573.4	341.1	M	101.8	M		M
2-Methylnaphthalene	11.9	118.3		117.4		0.8	
1-Methylnaphthalene	6.6	116.2		115.8		0.3	
2,6-Dimethylnaphthalene	5.4	71.5		75.8		5.9	
1,6,7-Trimethylnaphthalene	1.0	76.9		77.1		0.3	
1-Methylphenanthrene	37.4	80.0		80.3		0.3	
	Average %Recovery	**93.1**		**89.9**		**7.3**	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID	
Sample Descriptor	NIST 1941a
Original Sample	
GERG ID	Q15643
Sample Type	SRM
SDG	

Dry Weight	1.01
Wet Weight	
Sample Size Units	Grams
Matrix	Sediment
% solid	
% Lipid	
Reporting Units	ng/g
Calculation Basis (dry/wet)	Dry

QC Batch ID	M2711
Method	GCMS
Collection Date	
Receive Date	
Extraction Date	2/9/98
Analysis Date	2/20/98

Surrogate Compounds	**% Recovery**
d8-Naphthalene	78.1
d10-Acenaphthene	100.6
d10-Phenanthrene	107.1
d12-Chrysene	111.5
d12-Perylene	80.7

Total PAHs	**Concentration**
Total PAHs with Perylene	10708.6
Total PAHs without Perylene	10449.2
Total NS&T PAHs	5866.7

ND	Not Detected
J	<MDL
NA	Not Applicable
Q	Results Outside QC
I	Interference
B	Blank Contamination >3xMDL
D	Dilution

Florida Keys

Client Sample ID	
Sample Descriptor	NIST 1941a
Original Sample	
GERG ID	Q15643
Sample Type	SRM
SDG	

PAH Compounds	Concentration		QC Acceptance Range -35% to +35%			Certificate Values Concentration	2σ	C/NC
Naphthalene	839.2		565.5	to	1552.5	1010.0	140	
C1-Naphthalenes	418.8							
C2-Naphthalenes	192.0							
C3-Naphthalenes	156.8							
C4-Naphthalenes	111.2							
Biphenyl	72.6	Q	102.1	to	260.6	175	18	NC
Acenaphthylene	85.5	Q	15.0	to	68.9	37	14	NC
Acenaphthene	37.7		20.2	to	68.9	41	10	NC
Fluorene	79.2		57.7	to	143.0	97.3	8.6	C
C1-Fluorenes	51.0							
C2-Fluorenes	77.9							
C3-Fluorenes	134.6							
Phenanthrene	385.8		302.9	to	691.2	489	23	C
Anthracene	196.4		110.5	to	267.3	184	14	C
C1-Phenanthrenes/Anthracenes	242.6							
C2-Phenanthrenes/Anthracenes	242.3							
C3-Phenanthrenes/Anthracenes	161.0							
C4-Phenanthrenes/Anthracenes	243.5							
Dibenzothiophene	40.6		39.4	to	107.2	70.0	9.4	NC
C1-Dibenzothiophenes	48.7							
C2-Dibenzothiophenes	102.0							
C3-Dibenzothiophenes	92.8							
Fluoranthene	734.5		587.0	to	1429.7	981	78	C
Pyrene	579.8		511.6	to	1127.3	811	24	C
C1-Fluoranthenes/Pyrenes	348.0							
Benzo(a)anthracene	590.6		261.3	to	610.2	427	25	C
Chrysene	392.9		362.1	to	846.5	592	35	NC[a]
C1-Chrysenes	452.5							
C2-Chrysenes	264.3							
C3-Chrysenes	33.4							
C4-Chrysenes	32.6							
Benzo(b)fluoranthene	806.4		583.1	to	1432.4	979	82	NC[b]
Benzo(k)fluoranthene	107.2	Q	223.0	to	511.7	361	18	C
Benzo(e)pyrene	440.1		321.1	to	826.2	553	59	C
Benzo(a)pyrene	554.9		374.4	to	918.0	628	52	C
Perylene	259.4		256.1	to	688.5	452	58	C
Indeno(1,2,3-c,d)pyrene	535.8		278.9	to	773.6	501	72	C
Dibenzo(a,h)anthracene	111.6		73.5	to	179.6	123	10	NC[c]
Benzo(g,h,i)perylene	452.6		297.7	to	799.2	525	67	C
2-Methylnaphthalene	283.7							
1-Methylnaphthalene	135.1							
2,6-Dimethylnaphthalene	111.1							
1,6,7-Trimethylnaphthalene	42.1							
1-Methylphenanthrene	62.1		48.1	to	172.8	101	27	NC

a Concentration is the sum of chrysene and triphenylene.
b Concentration is the sum of benzo[*b*]fluoranthene and benzo[*j*]fluoranthene.
c Concentration is the sum of dibenz[*a,c*]anthracene and dibenz[*a,h*]anthracene.

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID	
Sample Descriptor	GERG STD CHK
Original Sample	
GERG ID	W39005
Sample Type	REF
SDG	

Dry Weight	1.00
Wet Weight	
Sample Size Units	Milliliter
Matrix	
% solid	
% Lipid	
Reporting Units	ng/mL
Calculation Basis (dry/wet)	

QC Batch ID	M2711
Method	GCMS
Collection Date	
Receive Date	
Extraction Date	
Analysis Date	2/20/98

Surrogate Compounds	% Recovery
d8-Naphthalene	NA
d10-Acenaphthene	NA
d10-Phenanthrene	NA
d12-Chrysene	NA
d12-Perylene	NA

Total PAHs	Concentration
Total PAHs with Perylene	17509.0
Total PAHs without Perylene	17501.4
Total NS&T PAHs	4807.1

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Florida Keys

Client Sample ID	
Sample Descriptor	GERG STD CHK
Original Sample	
GERG ID	W39005
Sample Type	REF
SDG	

PAH Compounds	Concentration		QC Acceptance Range -35% to +35%			Mean Lab Values Concentratio	SD
Naphthalene	716.4		308.5	to	748.2	514.4	39.8
C1-Naphthalenes	2418.9		1350.1	to	3289.1	2256.7	179.6
C2-Naphthalenes	2730.6		1103.7	to	2789.2	1882.1	184.0
C3-Naphthalenes	2381.1		851.3	to	2468.9	1569.2	259.6
C4-Naphthalenes	1387.2		438.7	to	1477.5	884.7	209.8
Biphenyl	163.6	J	120.2	to	292.5	200.8	15.9
Acenaphthylene	18.5	J	0.1	to	5.3	2.1	1.9
Acenaphthene	26.5	J	7.5	to	24.0	14.6	3.1
Fluorene	105.8	J	55.1	to	136.0	92.8	8.0
C1-Fluorenes	557.6		44.2	to	603.2	257.4	189.4
C2-Fluorenes	578.7		76.4	to	981.1	422.1	304.7
C3-Fluorenes	676.6		-31.7	to	1250.5	438.8	487.5
Phenanthrene	305.3		165.8	to	399.2	275.4	20.3
Anthracene	20.0	J	1.8	to	13.7	6.5	3.7
C1-Phenanthrenes/Anthracenes	933.4		352.6	to	946.0	621.6	79.1
C2-Phenanthrenes/Anthracenes	786.3		387.7	to	1130.0	716.8	120.3
C3-Phenanthrenes/Anthracenes	821.6		307.5	to	939.6	584.6	111.5
C4-Phenanthrenes/Anthracenes	333.2		113.5	to	425.7	245.0	70.4
Dibenzothiophene	195.0	J	120.9	to	336.9	217.8	31.8
C1-Dibenzothiophenes	385.1		238.8	to	676.8	434.3	67.0
C2-Dibenzothiophenes	678.4		331.9	to	992.9	623.0	112.4
C3-Dibenzothiophenes	588.6		277.3	to	935.4	559.8	133.1
Fluoranthene	7.3	J	1.6	to	9.7	4.8	2.4
Pyrene	12.0	J	6.2	to	22.4	13.1	3.5
C1-Fluoranthenes/Pyrenes	159.6	J	50.9	to	161.2	98.8	20.6
Benzo(a)anthracene	10.7	J	-0.3	to	16.5	5.9	6.4
Chrysene	57.5	J	28.2	to	78.3	50.7	7.3
C1-Chrysenes	131.0	J	47.2	to	159.6	95.4	22.8
C2-Chrysenes	198.2	J	59.0	to	210.7	123.4	32.6
C3-Chrysenes	32.3	J	12.1	to	42.6	25.1	6.4
C4-Chrysenes	18.4	J	7.1	to	33.6	17.9	7.0
Benzo(b)fluoranthene	11.4	J	2.6	to	10.5	5.9	1.9
Benzo(k)fluoranthene	11.5	J	0.4	to	4.4	2.0	1.3
Benzo(e)pyrene	17.2	J	6.4	to	18.2	11.6	1.8
Benzo(a)pyrene	6.5	J	0.7	to	6.3	2.8	1.8
Perylene	7.6	J	0.5	to	3.3	1.7	0.8
Indeno(1,2,3-c,d)pyrene	9.1	J	0.1	to	3.0	1.2	1.1
Dibenzo(a,h)anthracene	3.6	J	0.5	to	3.3	1.6	0.8
Benzo(g,h,i)perylene	6.7	J	1.8	to	7.0	4.0	1.2
2-Methylnaphthalene	1394.7		747.9	to	1816.5	1248.1	97.5
1-Methylnaphthalene	1024.2		601.3	to	1474.5	1008.7	83.6
2,6-Dimethylnaphthalene	690.7		466.5	to	1154.1	786.3	68.6
1,6,7-Trimethylnaphthalene	309.9		261.2	to	639.8	437.9	36.1
1-Methylphenanthrene	237.5		103.1	to	274.2	180.8	22.3

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
D Dilution

Pesticide and PCB Data

NOAA Florida Keys Sediments

Client Sample ID	FKNMS-1	FKNMS-2
Sample Descriptor		
Original Sample		
GERG ID	C28564	C28565
Sample Type	SAMP	SAMP
SDG	7C496	7C496
Dry Weight	8.43	10.49
Wet Weight	20.11	20.07
Sample Size Units	Grams	Grams
Matrix	Sediment	Sediment
% solid	41.9	52.3
% Lipid		
Reporting Units	ng/g	ng/g
Calculation Basis (dry/wet)	Dry	Dry
QC Batch ID	M2711	M2711
Method	GCECD	GCECD
Collection Date		
Receive Date	12/18/97	12/18/97
Extraction Date	2/9/98	2/9/98
Analysis Date	2/21/98	2/21/98
Surrogate Compounds	**%Recovery**	**%Recovery**
DBOFB	109.4	107.8
PCB103	108.3	107.2
PCB198	131.9	131.6
Totals	**Concentration**	**Concentration**
Total PCBs (S&T)	164.66	177.57

Pesticides	Concentration		Concentration	
Chlorinated Benzenes				
Tetrachlorobenzene 1,2,4,5		ND		ND
Tetrachlorobenzene 1,2,3,4	0.06	J	0.05	J
Pentachlorobenzene		ND		ND
Hexachlorobenzene	0.12	J	0.05	J
Hexachlorocyclohexanes				
Alpha HCH	0.03		0.01	J
Beta HCH	0.16		0.12	
Gamma HCH		ND		ND
Delta HCH	0.31		0.21	
Chlordane-related Compounds				
Heptachlor		ND		ND
Heptachlor Epoxide		ND	0.22	
Oxychlordane		ND		ND
Alpha Chlordane	0.11		0.05	
Gamma Chlordane	0.08		0.04	
Cis-Nonachlor		ND	0.63	
Trans-Nonachlor		ND		ND
Other Cyclodiene Pesticides				
Aldrin		ND		ND
Dieldrin		ND		ND
Endrin		ND	0.13	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
d Dilution
EC Exceeds Calibration

NOAA Florida Keys Sediments

Client Sample ID	FKNMS-1		FKNMS-2	
Sample Descriptor				
Original Sample				
GERG ID	C28564		C28565	
Sample Type	SAMP		SAMP	
SDG	7C496		7C496	
Pesticides				
Other Chlorinated Pesticides	**Concentration**		**Concentration**	
Pentachloroanisole	0.02	J	0.02	J
Chlorpyrifos	0.27	J	0.19	J
Mirex	0.12		0.01	J
Endosulfan I		ND		ND
Endosulfan II	0.28		0.33	
Trifluoralin		ND		ND
DDTs and Related Compounds				
2,4' DDE	0.25		0.09	
4,4' DDE	6.88		1.82	
2,4' DDD	5.47		8.59	
4,4' DDD	1.09		0.90	
2,4' DDT	0.60		0.64	
4,4' DDT	0.86		0.11	
Individual PCBs	**Concentration**		**Concentration**	
PCB8/5	0.56		0.38	
PCB18/17	0.68		0.88	
PCB28	1.20		0.94	
PCB52	2.50		2.32	
PCB44	0.56		0.59	
PCB66	1.61		1.05	
PCB101/90	4.75		5.16	
PCB118	5.28		4.91	
PCB153/132	13.93		18.55	
PCB105	0.79		0.68	
PCB138 /160	8.60		9.19	
PCB187	4.97		7.13	
PCB128	1.85			ND
PCB180	8.49		12.88	
PCB170/190	5.83		5.12	
PCB195/208	2.78		2.15	
PCB206	6.51		3.20	
PCB209	11.46		5.95	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
d Dilution
EC Exceeds Calibration

NOAA Florida Keys Sediments

Client Sample ID		FKNMS-1	FKNMS-1	
Sample Descriptor	Proc Blank		Duplicate	
Original Sample			C28564	
GERG ID	Q15641	C28564	Q15646	
Sample Type	BLANK	SAMP	DUP	
SDG		7C496	7C496	
Dry Weight	8.87	8.43	8.70	
Wet Weight		20.11	20.22	
Sample Size Units	Grams	Grams	Grams	
Matrix		Sediment	Sediment	
% solid		41.9	41.7	
% Lipid				
Reporting Units	ng/g	ng/g	ng/g	
Calculation Basis (dry/wet)	Dry	Dry	Dry	
QC Batch ID	M2711	M2711	M2711	
Method	GCECD	GCECD	GCECD	
Collection Date				
Receive Date		12/18/97	12/18/97	
Extraction Date	2/9/98	2/9/98	2/9/98	
Analysis Date	02/20/98	02/21/98	02/21/98	
Surrogate Compounds	**% Recovery**	**% Recovery**	**% Recovery**	
DBOFB	114.2	109.4	115.9	
PCB103	105.2	108.3	112.2	
PCB198	111.0	131.9	141.1	
Totals	**Concentration**	**Concentration**	**Concentration**	**%RPD**
Total PCBs (S&T)	0.64	181.84	193.84	6.4

Pesticides	Concentration		Concentration		Concentration		%RPD
Chlorinated Benzenes							
Tetrachlorobenzene 1,2,4,5		ND		ND		ND	
Tetrachlorobenzene 1,2,3,4	0.01	J	0.06	J	0.08	J	
Pentachlorobenzene	0.01	J		ND		ND	
Hexachlorobenzene	0.01	J	0.12	J	0.12	J	
Hexachlorocyclohexanes							
Alpha HCH	0.01	J	0.03		0.02		
Beta HCH		ND	0.16		0.19		
Gamma HCH		ND		ND		ND	
Delta HCH		ND	0.31		0.39		
Chlordane-related Compounds							
Heptachlor		ND		ND		ND	
Heptachlor Epoxide		ND		ND		ND	
Oxychlordane		ND		ND		ND	
Alpha Chlordane		ND	0.11		0.11		
Gamma Chlordane	0.02	J	0.08		0.08		
Cis-Nonachlor		ND		ND	0.85		
Trans-Nonachlor		ND		ND		ND	
Other Cyclodiene Pesticides							
Aldrin	0.00	J		ND		ND	
Dieldrin		ND		ND	0.61		
Endrin		ND		ND		ND	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
d Dilution
EC Exceeds Calibration

NOAA Florida Keys Sediments

Client Sample ID			FKNMS-1		FKNMS-1		
Sample Descriptor	Proc Blank				Duplicate		
Original Sample					C28564		
GERG ID	Q15641		C28564		Q15646		
Sample Type	BLANK		SAMP		DUP		
SDG			7C496		7C496		
Pesticides							
Other Chlorinated Pesticides	**Concentration**		**Concentration**		**Concentration**		**%RPD**
Pentachloroanisole	0.01	J	0.02	J	0.03		
Chlorpyrifos		ND	0.27	J		ND	
Mirex		ND	0.12		0.15		
Endosulfan I		ND					
Endosulfan II		ND	0.28		0.33		
Trifluoralin		ND			2.57		
DDTs and Related Compounds							
2,4' DDE		ND	0.25		0.21		
4,4' DDE		ND	6.88		7.28		5.6
2,4' DDD		ND	5.47		5.58		2.0
4,4' DDD		ND	1.09		1.15		5.2
2,4' DDT		ND	0.60		0.65		8.2
4,4' DDT	0.06	<3xMDL	0.86		0.70		19.9
Individual PCBs	**Concentration**		**Concentration**		**Concentration**		**%RPD**
PCB8/5	0.03	J	0.56		0.55		
PCB18/17		ND	0.68		0.67		1.5
PCB28		ND	1.20		1.22		1.8
PCB52	0.02	J	2.50		2.58		3.3
PCB44	0.03	J	0.56		0.59		5.0
PCB66		ND	1.61		1.83		12.9
PCB101/90		ND	4.75		5.10		7.0
PCB118		ND	5.28		5.84		10.2
PCB153/132	0.01	J	13.93		15.46		10.4
PCB105		ND	0.79		0.95		19.5
PCB138 /160	0.03	J	8.60		9.77		12.7
PCB187		ND	4.97		5.38		7.9
PCB128		ND	1.85		2.04		9.9
PCB180		ND	8.49		9.20		8.0
PCB170/190	0.06	J	5.83		6.00		2.7
PCB195/208		ND	2.78		2.31		18.4
PCB206	0.02	J	6.51		5.05		25.2
PCB209	0.01	J	11.46		9.66		17.1
					Average %RPD		**9.7**

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
d Dilution
EC Exceeds Calibration

NOAA Florida Keys Sediments

Client Sample ID	FKNMS-1	FKNMS-1	FKNMS-1
Sample Descriptor		Matrix Spike	Matrix Spike Dup
Original Sample		C28564	C28564
GERG ID	C28564	Q15644	Q15645
Sample Type	SAMP	MS	MSD
SDG	7C496	7C496	7C496
Dry Weight	8.43	8.36	8.48
Wet Weight	20.11	20.03	20.07
Sample Size Units	Grams	Grams	Grams
Matrix	Sediment	Sediment	Sediment
% solid	41.9	41.7	41.7
% Lipid			
Reporting Units	ng/g	%	%
Calculation Basis (dry/wet)	Dry	Dry	Dry
QC Batch ID	M2711	M2711	M2711
Method	GCECD	GCECD	GCECD
Collection Date			
Receive Date	12/18/97	12/18/97	12/18/97
Extraction Date	2/9/98	2/9/98	2/9/98
Analysis Date	02/21/98	02/21/98	02/21/98
Surrogate Compounds	**% Recovery**	**% Recovery**	**% Recovery**
DBOFB	109.4	120.6	110.7
PCB103	108.3	109.6	108.5
PCB198	131.9	137.8	138.0
Totals	**Concentration**	**Concentration**	**Concentration**
Total PCBs (S&T)	181.84	NA	NA

Pesticides	Concentration		% Recovery		% Recovery		%RPD
Chlorinated Benzenes							
Tetrachlorobenzene 1,2,4,5		ND	93.0		87.2		6.5
Tetrachlorobenzene 1,2,3,4	0.06	J	84.0		77.3		8.4
Pentachlorobenzene		ND	89.4		84.2		6.0
Hexachlorobenzene	0.12	J	90.5		86.8		4.2
Hexachlorocyclohexanes							
Alpha HCH	0.03		71.6		63.3		12.2
Beta HCH	0.16		83.8		82.2		2.0
Gamma HCH		ND	75.2		71.7		4.8
Delta HCH	0.31		64.8		54.4		17.5
Chlordane-related Compounds							
Heptachlor		ND	108.7		105.7		2.8
Heptachlor Epoxide		ND	81.8		87.5		6.8
Oxychlordane		ND	79.8		85.3		6.7
Alpha Chlordane	0.11		83.1		80.6		3.1
Gamma Chlordane	0.08		89.4		89.4		0.0
Cis-Nonachlor		ND	107.0		110.6		3.4
Trans-Nonachlor		ND	89.9		87.9		2.3
Other Cyclodiene Pesticides							
Aldrin		ND	68.6		66.0		3.9
Dieldrin		ND	82.5		95.1		14.2
Endrin		ND	123.5	Q	132.4	Q	7.0

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
d Dilution
EC Exceeds Calibration

NOAA Florida Keys Sediments

Client Sample ID	FKNMS-1	FKNMS-1	FKNMS-1
Sample Descriptor		Matrix Spike	Matrix Spike Dup
Original Sample		C28564	C28564
GERG ID	C28564	Q15644	Q15645
Sample Type	SAMP	MS	MSD
SDG	7C496	7C496	7C496

Pesticides								
Other Chlorinated Pesticides	**Concentration**		**% Recovery**		**% Recovery**		**%RPD**	
Pentachloroanisole	0.02	J	99.1		92.5		6.9	
Chlorpyrifos	0.27	J	76.1		70.5		7.6	
Mirex	0.12		91.2		84.6		7.5	
Endosulfan I								
Endosulfan II	0.28		57.1		80.4		33.8	Q
Trifluoralin								
DDTs and Related Compounds								
2,4' DDE	0.25		103.1		98.9		4.1	
4,4' DDE	6.88		213.7	Q	191.9	Q	10.8	
2,4' DDD	5.47		174.8	Q	226.8	Q	25.9	
4,4' DDD	1.09		91.1		103.0		12.3	
2,4' DDT	0.60		93.1		91.8		1.5	
4,4' DDT	0.86		116.4		111.4		4.4	

Individual PCBs	**Concentration**	**% Recovery**		**% Recovery**		**%RPD**	
PCB8/5	0.56	71.2		71.4		0.2	
PCB18/17	0.68	127.0	Q	94.1		29.8	
PCB28	1.20	102.4		103.7		1.3	
PCB52	2.50	87.5		89.8		2.7	
PCB44	0.56	87.9		87.4		0.5	
PCB66	1.61	104.1		109.5		5.1	
PCB101/90	4.75	98.2		105 9		7.5	
PCB118	5.28	91.1		103.0		12.3	
PCB153/132	13.93	185.9	Q	254.8	Q	31.3	Q
PCB105	0.79	121.4	Q	124.7	Q	2.7	
PCB138 /160	8.60	156.3	Q	203.3	Q	26.2	
PCB187	4.97	172.4	Q	209.8	Q	19.6	
PCB128	1.85	100.4		102.2		1.7	
PCB180	8.49	378.3	Q	521.5	Q	31.8	Q
PCB170/190	5.83	15.1	Q	22.9	Q	41.2	Q
PCB195/208	2.78	111.1		120.5	Q	8.1	
PCB206	6.51	67.2		86.9		25.6	
PCB209	11.46	10.1	Q	59.0		141.6	Q
	Average %Recovery	**112.0**		**116.2**		**13.3**	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
d Dilution
EC Exceeds Calibration

NOAA Florida Keys Sediments

Client Sample ID	
Sample Descriptor	NIST 1941a
Original Sample	
GERG ID	Q15643
Sample Type	SRM
SDG	

Dry Weight	1.01
Wet Weight	1.03
Sample Size Units	Grams
Matrix	
% solid	98.0
% Lipid	
Reporting Units	ng/g
Calculation Basis (dry/wet)	Dry

QC Batch ID	M2711
Method	GCECD
Collection Date	
Receive Date	
Extraction Date	2/9/98
Analysis Date	02/21/98

Surrogate Compounds	% Recovery
DBOFB	103.3
PCB103	96.9
PCB198	128.5

Totals	Concentration
Total PCBs (S&T)	337.51

Pesticides	Concentration		QC Acceptance Range -35% to +35%			Certificate Values Conc	2σ	C/NC
Chlorinated Benzenes								
Tetrachlorobenzene 1,2,4,5	26.85							
Tetrachlorobenzene 1,2,3,4	5.11							
Pentachlorobenzene	36.65							
Hexachlorobenzene	60.64		29.3	to	128.3	70	25	C
Hexachlorocyclohexanes								
Alpha HCH	0.33							
Beta HCH		ND						
Gamma HCH		ND						
Delta HCH	0.11	J						
Chlordane-related Compounds								
Heptachlor	0.97							
Heptachlor Epoxide	3.09							
Oxychlordane	1.76		1.6	to	3.8	2.59	0.19	NC
Alpha Chlordane	1.71		1.2	to	3.9	2.33	0.56	C
Gamma Chlordane	2.10							
Cis-Nonachlor	1.14							
Trans-Nonachlor	0.81		0.7	to	1.9	1.26	0.13	C
Other Cyclodiene Pesticides								
Aldrin		ND						
Dieldrin	1.91		0.6	to	2.2	1.26	0.37	NC
Endrin		ND						

ND	Not Detected
J	<MDL
NA	Not Applicable
Q	Results Outside QC
I	Interference
B	Blank Contamination >3xMDL
d	Dilution
EC	Exceeds Calibration

NOAA Florida Keys Sediments

Client Sample ID	
Sample Descriptor	NIST 1941a
Original Sample	
GERG ID	Q15643
Sample Type	SRM
SDG	

Pesticides			QC Acceptance Range			Certificate Values		
Other Chlorinated Pesticides	**Concentration**		**-35% to +35%**			**Conc**	**2σ**	**C/NC**
Pentachloroanisole	0.51							
Chlorpyrifos		ND						
Mirex	0.83							
Endosulfan I		ND						
Endosulfan II	0.46	J						
Trifluoralin		ND						
DDTs and Related Compounds								
2,4' DDE	1.05		0.4	to	1.1	0.73	0.11	C
4,4' DDE	5.00		3.9	to	9.7	6.59	0.56	C
2,4' DDD		ND						
4,4' DDD	4.41		2.9	to	7.6	5.06	0.58	C
2,4' DDT	0.43							
4,4' DDT	0.82		0.7	to	1.8	1.25	0.10	NC

Individual PCBs	**Concentration**							
PCB8/5	1.12	J	0.8	to	2.1	1.39	0.19	NC
PCB18/17	15.76	I	0.6	to	1.8	1.15	0.16	NC
PCB28	7.94		4.0	to	18.2	9.8	3.7	NC
PCB52	11.48	Q	4.1	to	10.1	6.89	0.56	C
PCB44	6.24		2.7	to	7.3	4.80	0.62	C
PCB66	8.01		3.5	to	11.1	6.8	1.4	C
PCB101/90	13.58		6.1	to	17.0	11.00	1.60	C
PCB118	9.32		5.8	to	15.0	10.0	1.1	C
PCB153/132	16.83		10.2	to	26.3	17.6	1.9	C
PCB105	3.21		2.2	to	5.3	3.65	0.27	C
PCB138 /160	13.76		8.1	to	19.4	13.38	0.97	C
PCB187	6.16		2.9	to	13.0	7.0	2.6	NC
PCB128	2.07		1.0	to	3.0	1.87	0.32	C
PCB180	9.15	Q	3.4	to	8.7	5.83	0.58	C
PCB170/190	26.72	I	1.7	to	4.7	3.00	0.46	C
PCB195/208	2.28							
PCB206	3.57		1.8	to	6.1	3.67	0.87	C
PCB209	7.52		5.1	to	11.9	8.34	0.49	C

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC
I Interference
B Blank Contamination >3xMDL
d Dilution
EC Exceeds Calibration

Trace Element Data

NOAA Florida Keys Sediments

INVEST#	FKNMS-1		FKNMS-2	
LABSAMNO	C28564		C28565	
SRMID				
SAMPTYPE	SAMP		SAMP	
GERG SDG	7C496		7C496	
Collection Date				
Receipt Date	12/18/98		12/18/98	
Matrix				
GFAA Digestion Wt	0.227		0.205	
GFAA Digestion Date	2/9/98		2/9/98	
Hg Digestion Wt	0.2023		0.2039	
Hg Digestion Date	5/23/98		5/23/98	
Wtunits	Grams		Grams	
UnitQual	Dry		Dry	
% Solids	48.2		52.3	
Conc Units	ppm	QUAL	ppm	QUAL
GFAA/FAA				
Silver	0.096		0.053	
Aluminum	1233		1102	
Arsenic	7.63		7.74	
Cadmium	0.34		0.24	
Chromium	36.8		33.5	
Copper	246		154	
Iron	3128		3033	
Manganese	29		26	
Nickel	5.6		3.7	
Lead	151		133	
Antimony	0.87		0.87	
Selenum	0.36		0.41	
Tin	2.50		2.00	
Thallium	0.031	J	0.090	
Zinc	210		147	
CVAA				
Mercury	6.33		3.30	

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC

NOAA Florida Keys Sediments

INVEST#	Proc Blank			Spike Blank		
LABSAMNO	BLANKA			BLKSPKA		
SRMID						
SAMPTYPE	BLANK			LBS		
GERG SDG						
Collection Date						
Receipt Date						
Matrix						
GFAA Digestion Wt	1			1		
GFAA Digestion Date	2/9/98			2/9/98		
Hg Digestion Wt	1			1		
Hg Digestion Date	5/23/98			5/23/98		
Wtunits	Grams			Grams		
UnitQual	Dry		Spike	Dry		
% Solids			Amount			
Conc Units	ppm	QUAL	ppm	ppm	QUAL	% Rec
GFAA/FAA						
Silver	0.0	J	1.0	0.93		93
Aluminum	0	ND	2000	1656		83
Arsenic	0.05	J	4.0	3.67		92
Cadmium	0.00	ND	1.0	0.84		84
Chromium	0.0	J	10.0	8.7		87
Copper	0.42		10.0	10.1		101
Iron	0	ND	2000	2015		101
Manganese	0	ND	100	104		104
Nickel	0.0	J	20.0	17.6		88
Lead	0.03	J	10.00	10.6		106
Antimony	0.00	ND	2.0	2.38		119
Selenum	0.00	ND	2.0	2.10		105
Tin	0.00	J	10	7.51		75
Thallium	0.012		2.0	1.79		90
Zinc	0.21		40	39		98
CVAA						
Mercury	0.000	ND	0.100	0.103		103

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC

NOAA Florida Keys Sediments

INVEST#				
LABSAMNO		MESS2A		
SRMID		NRCC MESS2		
SAMPTYPE		SRM		
GERG SDG				
Collection Date				
Receipt Date				
Matrix				
GFAA Digestion Wt		0.207		
GFAA Digestion Date		2/9/98		
Hg Digestion Wt		0.207		
Hg Digestion Date		5/23/98		
Wtunits		Grams		
UnitQual	Certified	Dry		
% Solids	Values			
Conc Units	ppm	ppm	QUAL	% Rec
GFAA/FAA				
Silver	0.18	0.16		89
Aluminum	85800	73181		85
Arsenic	20.7	20.2		98
Cadmium	0.24	0.21		86
Chromium	106	103		97
Copper	39.3	37.7		96
Iron	43505	43215		99
Manganese	365	364		100
Nickel	49.3	42.8		87
Lead	21.9	23.0		105
Antimony	1.09	1.35		124
Selenum	0.72	0.81		112
Tin	2.27	2.29		101
Thallium	0.98	0.90		92
Zinc	172	156		91
CVAA				
Mercury	0.092	0.093		101

ND Not Detected
J <MDL
NA Not Applicable
Q Results Outside QC

NOAA Florida Keys Sediments

Gerg ID	Client ID	Receive Date	Analysis Date	Matrix	Sample Type	% Sand	% Silt	% Clay
C28564	FKNMS-1	12/18/97	2/7/98	Sediment	Samp	25.96	54.00	20.04
C28565	FKNMS-2	12/18/97	2/7/98	Sediment	Samp	32.66	50.13	17.21

NOAA Florida Keys Sediments

Client ID	Gerg ID	Sample Type	TOC Run Date	TC Run Date	TOC %	TC%	TIC%
FKNMS-1	C28564	SAMP	2/27/98	2/27/98	2.53	10.6	8.07
FKNMS-2	C28565	SAMP	2/27/98	2/27/98	1.93	13.5	11.57
Blanks							
	BLK0227	BLANK	2/27/98		<0.02		
Duplicates							
FKNMS-1	C28564	SAMP	2/27/98	2/27/98	2.53	10.60	8.07
FKNMS-1	C28564D	DUP	2/27/98	2/27/98	2.46	12.20	9.74
	% RPD				2.8%	14.0%	18.8%
Standard Reference Materials (Certified value = 4.8%)							
NIST 1941a	SRM0227	SRM	2/27/98		4.29		
	% Recovery				89.4%		