N00213.AR.000615
NAS KEY WEST
5090.3a

BOCA CHICA FLYING CLUB MONITORED NATURAL ATTENUATION REPORT FOR FEBRUARY 2004 WITH TRANSMITTAL LETTER NAS KEY WEST FL
4/12/2004
TETRA TECH NUS

TETRA TECH NUS, INC.

AIK-04-0063

April 12, 2004

Project Number HK 5658 *via U.S. mail*

Commander
Department of the Navy
SOUTHDIV NAVFACENGCOM
ATTN: Byas Glover (Code ES24)
P.O. Box 190010
North Charleston, South Carolina 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0301

Subject: Flying Club Monitored Natural Attenuation Report, February 2004, Rev. 0,
Naval Air Station, Key West, Florida

Dear Mr. Glover:

TtNUS is pleased to submit the enclosed PDF file for the final Flying Club Monitored Natural Attenuation Report, February 2004, Rev. 0, Naval Air Station, Key West, Florida. The file is being distributed to the members of the NAS Key West Partnering Team via U.S. mail for their convenience and to meet TtNUS's contractual obligation under CTO 0301. I am not expecting to receive any comments on this report.

Please call me at (803) 649-7963, extension 345, if you have any questions regarding the report.

Sincerely,

C. M. Bryan
Project Manager

CMB:spc

Enclosure

c: Ms. Debbie Wroblewski (Cover Letter Only)
Mr. R. Courtright, NAS Key West
Ms. T. Vaught, FDEP
Mr. M. Perry/File
File 5658-7.2.3

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FLYING CLUB MONITORED NATURAL ATTENUATION REPORT FEBRUARY 2004

NAVAL AIR STATION
Key West, Florida

Southern Division

Naval Facilities Engineering Command

Contract Number N62467-94-D-0888

Contract Task Order 0301

April 2004

Rev. 0
04/12/04

FLYING CLUB MONITORED NATURAL ATTENUATION REPORT
FEBRUARY 2004

NAVAL AIR STATION
KEY WEST, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Submitted by:
Tetra Tech NUS, Inc.
661 Anderson Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220

CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0301

APRIL 2004

PREPARED UNDER THE SUPERVISION OF:

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APPROVED FOR SUBMITTAL BY:

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ACRONYMS/ABBREVIATIONS

ABB	ABB Environmental Services, Inc.
AS	Air sparging
AST	Aboveground storage tank
AVGAS	Aviation gasoline
BEI	Bechtel Environmental, Inc.
CAR	Contamination Assessment Report
CLEAN	Comprehensive Long-Term Environmental Action Navy
CTO	Contract Task Order
EDB	Ethylene dibromide
FC	Flying Club
FDEP	Florida Department of Environmental Protection
GCTL	Groundwater cleanup target level
KAG	Kerosene analytical group
µg/L	Micrograms per liter
MNA	Monitored natural attenuation
MW	Monitoring well
NAS	Naval Air Station
NAVFAC EFD SOUTH	Southern Division, Naval Facilities Engineering Command
OVA	Organic vapor analyzer
PAH	polynuclear aromatic hydrocarbons
ppm	Parts per million
RAP	Remedial Action Plan
SVE	Soil vapor extraction
TOC	Top-of-casing
TRPH	Total recoverable petroleum hydrocarbons
TtNUS	Tetra Tech NUS, Inc.
UST	Underground storage tank
VOC	Volatile organic compound

1.0 FLYING CLUB MNA REPORT

Tetra Tech NUS, Inc. (TtNUS) has been contracted by the Department of the Navy, Southern Division, Naval Facilities Engineering Command (NAVFAC EFD SOUTH) to perform monitored natural attenuation (MNA) at the Flying Club, Naval Air Station (NAS) Key West, Florida. This MNA Report has been prepared under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888, Contract Task Order (CTO) number 0301. This report presents groundwater monitoring results for February 2004.

1.1 SITE HISTORY OVERVIEW

The former Flying Club is located at NAS Key West along the northwest boundary of Taxiway H of Boca Chica Field (Figure 1-1). The Flying Club area includes a former motor pool refueling point that used underground storage tanks (USTs) to store gasoline (Figure 1-2). An aviation gasoline (AVGAS) aboveground storage tank (AST) area was located approximately 50 feet south of the former motor pool refueling area. The area is currently used as an electrical repair and maintenance facility (Building A-126) and a transformer storage area (Building A-133).

1.1.1 History of Assessment Activities

Soils from the site were field-screened with an Organic Vapor Analyzer (OVA) to assess for the presence of contaminated soil during the Contamination Assessment conducted in April 1994. Seventy-one soil borings were advanced, each 6 feet deep. OVA screening results indicated the presence of excessively contaminated soils (greater than 50 parts per million [ppm]) in four areas. The largest of these areas measured approximately 70 feet by 40 feet and was located southeast of Building A-133. Three smaller areas of excessively contaminated soil were identified near the former AVGAS dispenser, north of Building A-133, and northwest of Building A-133. OVA readings greater than 500 ppm were observed in 20 soil samples (ABB, 1994).

During the Contamination Assessment conducted in April 1994, groundwater samples were collected from twenty monitoring wells at the Flying Club and analyzed for Kerosene Analytical Group (KAG) parameters. KAG analyses consisted of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), ethylene dibromide (EDB), total lead, and total recoverable petroleum hydrocarbons (TRPH). The Florida Department of Environmental Protection (FDEP) Class G-III aquifer cleanup goals were exceeded for VOCs and PAHs. Two areas of VOC contamination were identified, one near the former AVGAS ASTs and dispenser and the other near the former motor pool USTs. The highest total benzene concentration in a groundwater sample, 710 micrograms per liter (µg/L), was found near the former AVGAS dispenser.

The monitoring wells were resampled in August 1996, as part of the Remedial Action Plan (RAP) preparation. The 1996 data indicated significant changes in the degree and extent of contamination originally defined in the Contamination Assessment Report (CAR). The highest VOC concentrations were found in samples from monitoring well FC-MW-06. Based on the 1996 sampling results, the RAP recommended the removal of an estimated 2,126 cubic yards of contaminated soil. The largest volume of soil recommended for excavation was in the vicinity of the former motor pool USTs, near Building A-133 (ABB, 1997).

In 1998, based on recommendations in the RAP, approximately 983 cubic yards of soil were removed from the Flying Club site. The amount excavated was less than scoped in the RAP because natural attenuation had reduced soil contamination since the contamination assessment was performed, and cleanup goals had been revised since production of the RAP. The ion collider process was used to treat the contaminated soil. The excavated areas at the Flying Club site were then backfilled with the treated soil (BEI, 1999).

A quarterly groundwater monitoring plan was implemented in August 1999. In April 2001, total VOA concentrations for samples from monitoring wells FC-MW-06 and FC-MW-20 (replaced by FC-MW-22) were 52 µg/L and 11 µg/L, respectively. These VOA concentrations were below the applicable cleanup guidelines. However, naphthalene and TRPH concentrations had increased in FC-MW-20. Because concentrations of several contaminants did not decrease over several quarters of monitoring, TtNUS recommended a treatability study be performed to investigate the efficacy of enhancing the degradation of contaminants under aerobic conditions (TtNUS, 2001).

In May 2002, an air sparging (AS)/soil vapor extraction (SVE) Treatability Study was initiated at the site to remediate residual hydrocarbon contaminants in the soil and groundwater. The remedial system operated effectively from June 2002 through January 2003, with the exception of a one-week period when the system was down for equipment repair. TtNUS performed routine operation and maintenance during monthly site visits. The trailer containing the AS/SVE system was removed in February 2003 after completion of the treatability study. Quarterly groundwater samples were collected during operation of the AS/SVE system, in September 2002 and January 2003. Results are reported in the AS/SVE Treatability Study Evaluation Report (TtNUS, 2003a). Flying Club monitoring wells were again sampled in May, August, and November 2003. The post-treatability study groundwater results are reported in the Post-Treatability Study Monitoring Report (TtNUS, 2003b), the Flying Club MNA Report for August 2003 (TtNUS, 2003c), and the Flying Club MNA Report for November 2003 (TtNUS, 2004).

1.2 GROUNDWATER MONITORING

Groundwater samples were collected from three previously sampled monitoring wells at the Flying Club in February 2004. Immediately prior to the collection of the groundwater samples, water levels were

recorded from each site monitoring well. The water level data was used to determine purge volumes. In addition, depth-to-water measurements and top-of-casing (TOC) elevations were used to calculate groundwater elevations. Based on these elevations, the groundwater was flowing primarily to the south-southeast at the time of the February 2004 sampling event. Figure 1-2 depicts the groundwater elevations recorded on February 7, 2003. Depth-to-water measurements, TOC elevations, and groundwater elevation data are provided in Table 1-1.

All monitoring wells were purged prior to collection of the groundwater samples. Purging and sampling were performed with a peristaltic pump using the low-flow quiescent method. Water sampling logs for February 2004, which detail the purge process, are provided in Appendix A.

Following collection of the groundwater samples, the sample bottles were packed on ice and shipped via overnight transport to Katahdin Analytical Laboratory in Westbrook, Maine. The groundwater samples were analyzed for compounds in the KAG. The analytical results are summarized in Table 1-2. Figure 1-3 presents four quarters of monitoring results since the treatability study was completed (May, August, and November 2003, and February 2004).

The February 2004 analytical results were consistent with the results from November 2003, with some KAG constituents detected at a slightly higher level and some at a slightly lower level than the previously reported concentrations. Several KAG constituents were detected in the groundwater sample from monitoring well FC-MW-06, but all were below FDEP Groundwater Cleanup Target Levels (GCTLs). Lead, ethylbenzene, 1- and 2-methylnaphthalene, and naphthalene exceeded their respective GCTLs in the sample from monitoring well FC-MW-22. KAG constituents were not detected in the sample from monitoring well FC-MW-05. Validation reports are included in Appendix B.

1.3 CONCLUSIONS AND RECOMMENDATIONS

Lead, ethylbenzene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were detected above GCTLs in groundwater collected in February 2004. All exceedances occurred in groundwater from one monitoring well, FC-MW-22, and were consistent with levels detected during the previous sampling event in November 2003.

The AS/SVE Treatability Study Evaluation Report (TtNUS, 2003a) concluded that the overall KAG contamination in the previously-defined source area monitoring well (FC-MW-06) has decreased since implementation of the AS/SVE system. However, groundwater samples from FC-MW-22 showed an increase in concentrations of VOAs, PAHs, and lead following the treatability study. Although a decrease in KAG concentrations was observed from May through November 2003, concentrations of contaminants of concern (COCs) have been consistent during the past two sampling events, and remain above GCTLs.

FDEP is currently revising GCTLs. The current and historical data indicate that this site will not meet the MNA requirements for the revised GCTLs, which suggests that additional action will be likely at this site once the new GCTLs are promulgated. TtNUS recommends that a Supplemental Site Assessment be performed at the Flying Club to further assess groundwater contamination and determine if an active source exists. One additional monitoring event in May 2004 will be performed to gather additional information regarding contaminant trends before Supplemental Site Assessment activities are initiated.

TABLE 1-1

TOTAL DEPTHS, TOP OF CASING ELEVATIONS, AND WATER TABLE ELEVATIONS
MNA REPORT
FLYING CLUB SITE
NAVAL AIR STATION
KEY WEST, FLORIDA

Well ID	Date	Total Depth (ft)	TOC Elevation (ft)	Depth-to-water (ft below TOC)	Groundwater Elevation (ft)
FC-MW-05	02/07/2004	11.6	5.78	4.15	1.63
FC-MW-06	02/07/2004	12.34	4.86	3.10	1.76
FC-MW-22	02/07/2004	14.5	5.07	3.47	1.60

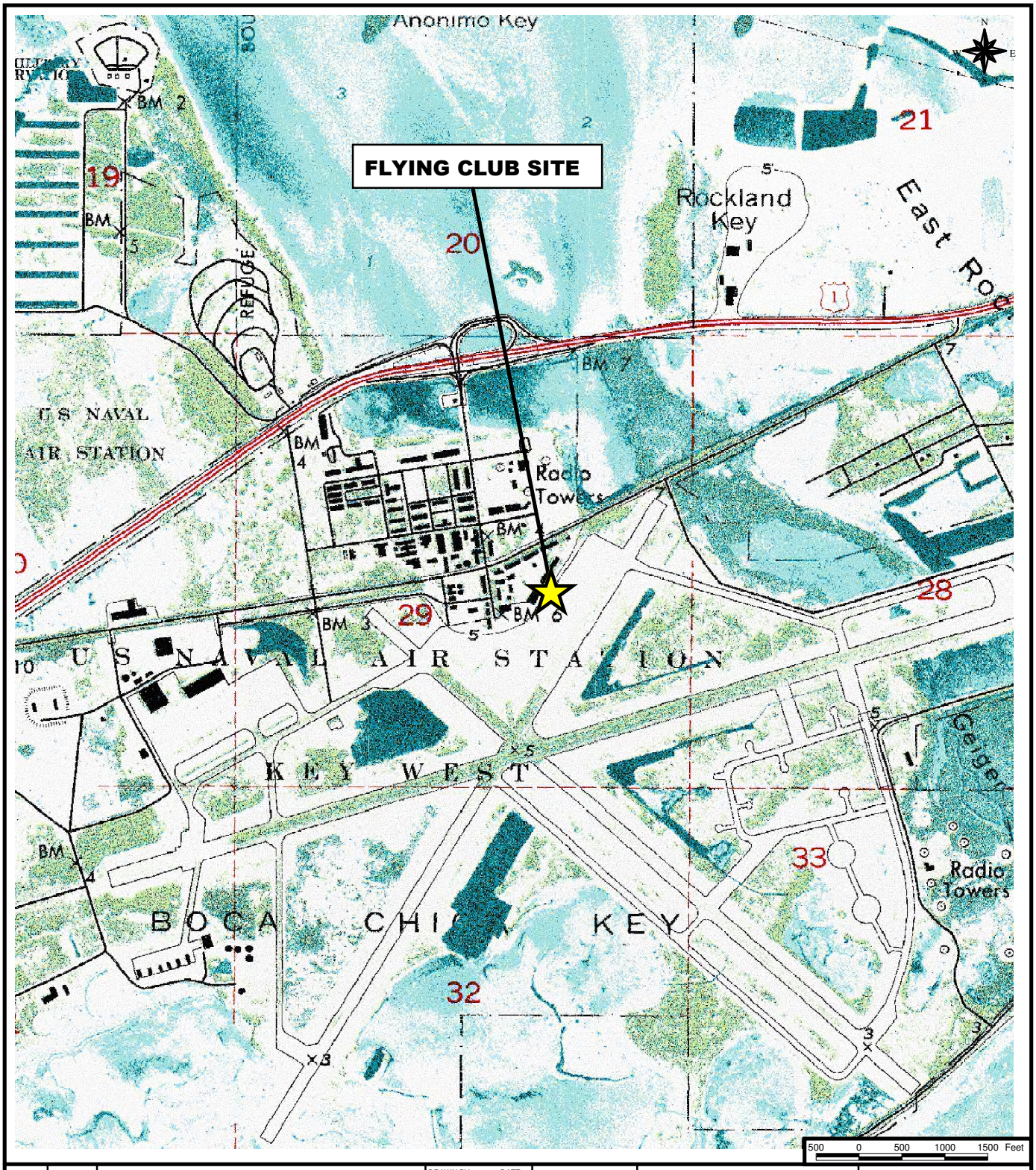
Top of Casing (TOC) Elevations were surveyed by Donaldson, Garrett, and Associates in September 2002. Vertical datum is National Geodetic Vertical Datum of 1929 (NGVD 29).

TABLE 1-2

**GROUNDWATER ANALYTICAL RESULTS
FEBRUARY 2004
FLYING CLUB MNA REPORT
NAVAL AIR STATION
KEY WEST, FLORIDA**

LOCATION	PARAMETER	RESULT (µg/L)	QUAL.[a]	GCTL[b] (µg/L)
Lead				
FC-MW-22-0204	LEAD	42		15
Volatile Organic Compounds (VOCs)				
FC-MW-06-0204-AVG	BENZENE	0.3	J	1
FC-MW-06-0204-AVG	ETHYLBENZENE	0.4	J	30
FC-MW-22-0204	ETHYLBENZENE	38		
FC-MW-22-0204	TOLUENE	0.7	J	40
FC-MW-06-0204-AVG	TOTAL XYLENES	0.4	J	20
FC-MW-22-0204	TOTAL XYLENES	7		
Polynuclear Aromatic Hydrocarbons (PAHs)				
FC-MW-06-0204-AVG	1-METHYLNAPHTHALENE	0.0945	J	20
FC-MW-22-0204	1-METHYLNAPHTHALENE	26		
FC-MW-22-0204	2-METHYLNAPHTHALENE	53		20
FC-MW-22-0204	ACENAPHTHENE	0.092	J	20
FC-MW-06-0204-AVG	NAPHTHALENE	0.0935	J	20
FC-MW-22-0204	NAPHTHALENE	150		
Total Petroleum Hydrocarbons (TPH)				
FC-MW-22-0204	TOTAL PETROLEUM HYDROCARBONS	2,700		5,000

Shading indicates a concentration in excess of the GCTL.
The notation "AVG" indicates that duplicate samples were collected and averaged for the reported result.
(a) Qualifier (Qual.) Codes:
J – The estimated quantity was below the practical quantitation limit and above the method detection limit.
(b) Groundwater Cleanup Target Level (GCTL) as listed in F.A.C. 62-777 Table I.



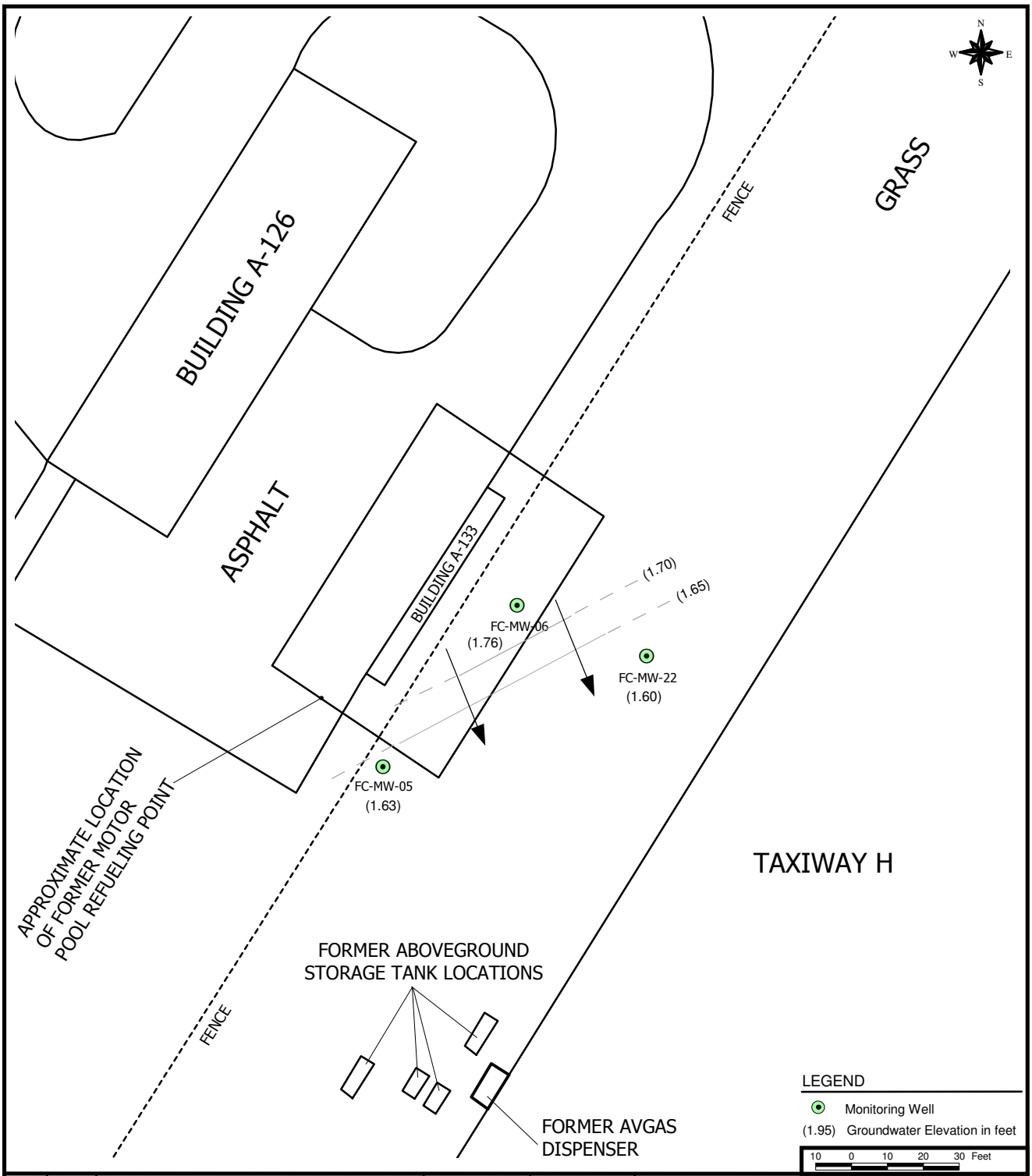
NO.	DATE	REVISIONS

DRAWN BY	DATE
EHM	04/02/2004
CHECKED BY	DATE
PC	04/09/2004
COST/SCHED-AREA	
SCALE	
AS NOTED	

FLYING CLUB MNA REPORT
FEBRUARY 2004
LOCATION MAP
NAVAL AIR STATION
KEY WEST, FLORIDA

CONTRACT NO.	
N5658	
APPROVED BY	DATE
CMB	04/12/2004
APPROVED BY	DATE
FIGURE	REV.
1-1	0

K:\FLYING CLUB MNA REPORT.APR LAYOUT: FIGURE 1-1 LOCATION MAP FEB04 BY: EHM DATE: 04/02/2004



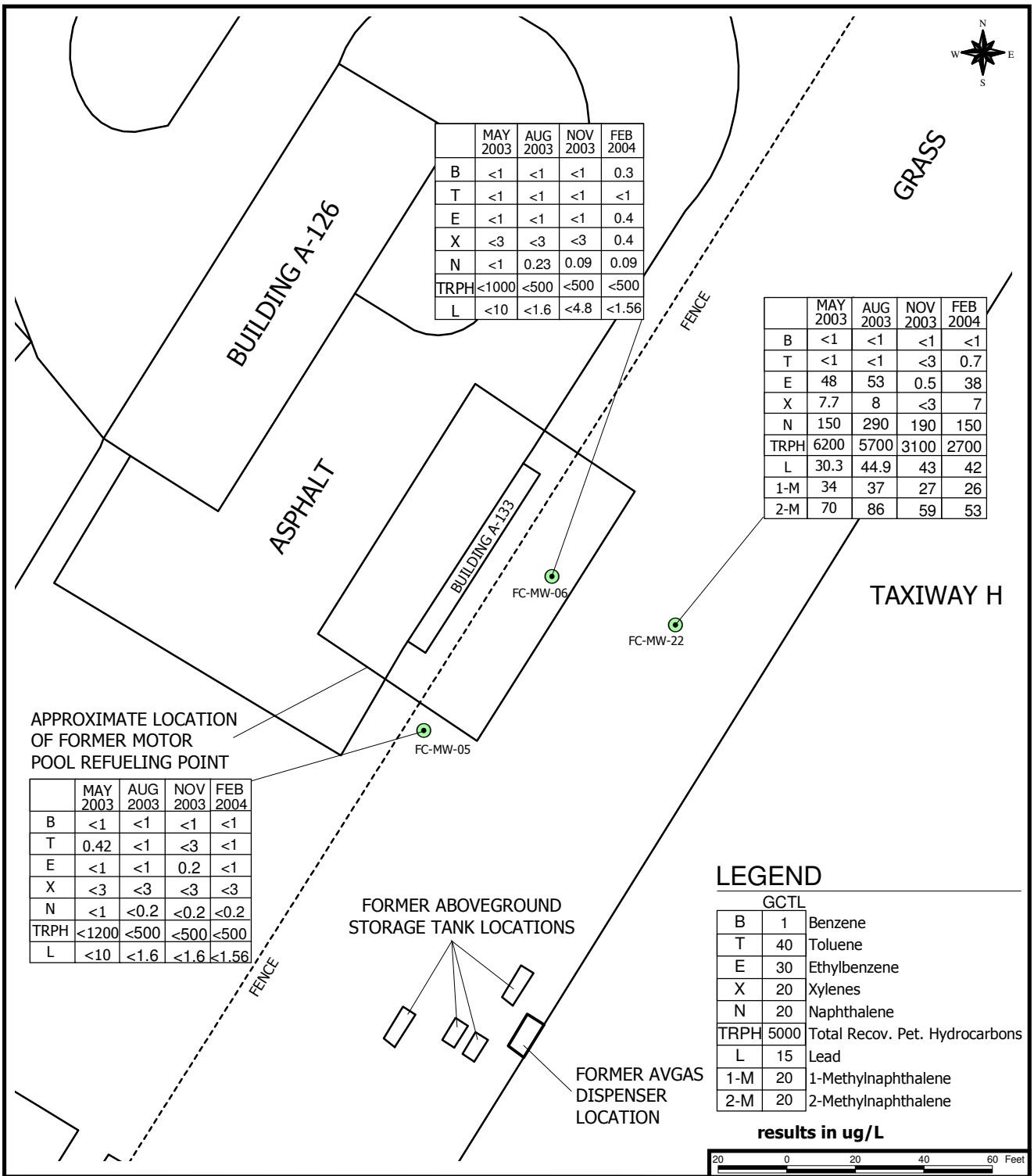
NO.	DATE	REVISIONS

DRAWN BY EHM	DATE 04/02/2004
CHECKED BY PC	DATE 04/09/2004
COST/SCHED-AREA	
SCALE AS NOTED	

FLYING CLUB MNA REPORT
FEBRUARY 2004
GROUNDWATER ELEVATION MAP
NAVAL AIR STATION
KEY WEST, FLORIDA

CONTRACT NO. N5658	
APPROVED BY CMB	DATE 04/12/2004
APPROVED BY	DATE
FIGURE 1-2	REV. 0

K;\FLYING CLUB MNA REPORT. APR LAYOUT: GROUNDWATER ELEVATION CONTOUR MAP FEB04 BY: EHM 04/02/2004



	MAY 2003	AUG 2003	NOV 2003	FEB 2004
B	<1	<1	<1	0.3
T	<1	<1	<1	<1
E	<1	<1	<1	0.4
X	<3	<3	<3	0.4
N	<1	0.23	0.09	0.09
TRPH	<1000	<500	<500	<500
L	<10	<1.6	<4.8	<1.56

	MAY 2003	AUG 2003	NOV 2003	FEB 2004
B	<1	<1	<1	<1
T	<1	<1	<3	0.7
E	48	53	0.5	38
X	7.7	8	<3	7
N	150	290	190	150
TRPH	6200	5700	3100	2700
L	30.3	44.9	43	42
1-M	34	37	27	26
2-M	70	86	59	53

	MAY 2003	AUG 2003	NOV 2003	FEB 2004
B	<1	<1	<1	<1
T	0.42	<1	<3	<1
E	<1	<1	0.2	<1
X	<3	<3	<3	<3
N	<1	<0.2	<0.2	<0.2
TRPH	<1200	<500	<500	<500
L	<10	<1.6	<1.6	<1.56

NO.	DATE	REVISIONS

DRAWN BY EHM	DATE 04/06/2004	
CHECKED BY PC	DATE 04/09/2004	
COST/SCHED-AREA		
SCALE AS NOTED		

FLYING CLUB MNA REPORT
FEBRUARY 2004
GROUNDWATER EXCEEDANCES
NAVAL AIR STATION
KEY WEST, FLORIDA

CONTRACT NO. N5658	
APPROVED BY CMB	DATE 04/12/2004
APPROVED BY	DATE
FIGURE 1-3	REV. 0

K:\FLYING CLUB MNA REPORT.APR LAYOUT: FIGURE 1-3 GROUNDWATER EXCEEDANCES FEB04 BY: EHM DATE: 04/06/2004

REFERENCES

ABB (ABB Environmental Services, Inc.), 1994. Contamination Assessment Report, Flying Club Site, Building A-127, Naval Air Station Key West, Boca Chica Field, Key West, Florida, prepared for Southern Division Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). Charleston, South Carolina.

ABB, 1997. Remedial Action Plan, Flying Club Site (UST Site 9), Naval Air Station, Key West, Florida, prepared for Southern Division Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). Charleston, South Carolina, August.

BEI (Bechtel Environmental, Inc.), 1999. Project Completion Report for Delivery Order No. 0094, Flying Club Site, Petroleum Remediation at Naval Air Station, Key West, Florida, prepared for Department of the Navy, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). Oak Ridge, Tennessee, January.

TtNUS (Tetra Tech NUS, Inc.), 2001. Groundwater Monitoring Report April 2001 for Flying Club Site, UST Site 9, prepared for Department of the Navy, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). Aiken, South Carolina, June.

TtNUS, 2003a. AS/SVE Treatability Study Evaluation Report for Boca Chica Flying Club, June 2002 to January 2003, Naval Air Station, Key West, Florida, prepared for Southern Division Naval Facilities Engineering Command (SOUTHNAVFACENGCOM). Aiken, South Carolina, April.

TtNUS, 2003b. Post-Treatability Study Monitoring Report for Flying Club, Building A-127, Naval Air Station, Key West, Florida, prepared for Department of the Navy, Southern Division, Naval Facilities Engineering Command (NAVFAC EFD SOUTH). Aiken, South Carolina, July.

TtNUS, 2003c. Flying Club Monitored Natural Attenuation Report, August 2003, Naval Air Station, Key West, Florida, prepared for Department of the Navy, Southern Division, Naval Facilities Engineering Command (NAVFAC EFD SOUTH). Aiken, South Carolina, October.

TtNUS, 2004. Flying Club Monitored Natural Attenuation Report, November 2003, Naval Air Station, Key West, Florida, prepared for Department of the Navy, Southern Division, Naval Facilities Engineering Command (NAVFAC EFD SOUTH). Aiken, South Carolina, February.

APPENDIX A

LOG SHEETS

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: NAS KW - Flying Club
Project No.: CTO 301/ N5658
Location: NAS KW, Florida
Personnel: Emily McRee, Brian Cole
Weather Conditions: Sunny 77°F
Measuring Device: Heron WLM 100'
Tidally Influenced: Yes X No ___
Remarks:

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
FC-MW-05	2/7/04	0910	5.78	11.6	4.15	—	1.63	
FC-MW-06	2/7/04	0912	4.86	12.34	3.1	—	1.76	
FC-MW-22	2/7/04	0908	5.07	14.5	3.47	—	1.6	

Emily McRee

* All measurements to the nearest 0.01 foot

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS KEY WEST -
Project No.: N5658

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: FC-MW-05-0204
Sample Location: FC-MW-05
Sampled By: BC
C.O.C. No.: 3832
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

Date: 2/7/04	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Time: 1220								
Method: peri. pump	clear	7.29	0.690	25.81	0	2.83	0.03	

PURGE DATA: No purge data was collected for groundwater screening samples.

Date: 2/7/04	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: peri. pump	1WT	7.45	0.687	26.12	~~no reading~~	4.12	0.03	1140
Monitor Reading (ppm): —	1.0	7.29	0.696	26.02	~~flash~~ 0	2.97	0.03	1150
Well Casing Diameter & Material	1.5	7.29	0.696	25.90	0	2.93	0.03	1155
Type: 2" PVC	2.0	7.29	0.694	25.83	0	2.87	0.03	1200
Total Well Depth (TD): 11.6	2.5	7.29	0.692	25.79	0	2.89	0.03	1205
Static Water Level (WL): 4.1	3.0	7.29	0.691	25.78	0	2.98	0.03	1210
One Casing Volume(gal/L): 1.2	3.5	7.29	0.691	25.78	0	2.85	0.03	1215
Start Purge (hrs): 1140	4.0	7.29	0.690	25.81	0	2.83	0.03	1220
End Purge (hrs): 1220								
Total Purge Time (min): 40								
Total Vol. Purged (gal/L): 4.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PPL VOHs, BTEX, MTBE	HCl	3x40mL	3
EDB	HCl	2x40mL	2
Pb	HNO_3	1x250mL HDPE	1
PAH	none	2x1L amber	2
TRPH	HCl	2x1L amber	2

OBSERVATIONS / NOTES:

Capped, but no steel lid

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Brian Cole

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS KEY WEST -
Project No.: N5658

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: FC-MW-06-0204
Sample Location: FC-MW-06
Sampled By: BC
C.O.C. No.: 3832
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 2/7/04								
Time: 1020								
Method: peri. pump	Clear	7.74	0.539	25.93	24.1	1.91	0.02	

PURGE DATA: No purge data was collected for groundwater screening samples.

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 2/7/04								
Method: peri. pump	INT	6.67	0.560	26.41 ~~324.0~~	324.0	3.82	0.02	0920
Monitor Reading (ppm): —	1.0	7.45	0.551	25.63	71.2	3.29	0.02	0930
Well Casing Diameter & Material Type: 2" PVC	2.0	7.62	0.571	25.50	37.7	3.16	0.02	0940
	2.5	7.68	0.564	25.50	24.3	3.09	0.02	0945
Total Well Depth (TD): 12.34	3.0	7.70	0.562	25.52	19.7	2.59	0.02	0950
Static Water Level (WL): 3.1	3.5	7.71	0.558	25.57	22.6	2.09	0.02	0955
One Casing Volume(gal/L): 1.48	4.0	7.73	0.552	25.60	24.1	1.86	0.02	1000
Start Purge (hrs): 0920	4.5	7.73	0.550	25.63	23.4	1.66	0.02	1005
End Purge (hrs): 1020	5.0	7.74	0.545	26.65	21.7	1.86	0.02	1010
Total Purge Time (min): 60	5.5	7.74	0.540	26.23	24.6	1.89	0.02	1015
Total Vol. Purged (gal/L): 6.0	6.0	7.74	0.539	25.93	24.1	1.91	0.02	1020

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PPL VOHs, BTEX, MTBE	HCl	3x40mL	6
EDB	HCl	2x40ml	4
Pb	HNO_3	1x 250 mL HDPE	2
PAH	none	2x 1L amber	4
TRPH	HCl	2x 1L amber	4

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.
	KW-DUP-03-0204

Signature(s): B. Cole

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS KEY WEST - Flying Club
Project No.: CTO 301/5658

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: FC-MW-22-0204
Sample Location: FC-MW-22
Sampled By: Emily McRee
C.O.C. No.: 3832
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 2/7/04								
Time: 1025								
Method: peristaltic-low flow	clear	7.11	50.8	26.2	118	1.42	0.0	—

PURGE DATA: ~~No purge data was collected for groundwater screening samples.~~

	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 2/7/04								
Method: peristaltic-low flow	0.66 gal	7.16	53.5	26.2	112	2.77	0.01	0935
Monitor Reading (ppm): —	1.0	7.16	52.9	26.1	111	2.60	0.0	0940
Well Casing Diameter & Material	1.33	7.17	52.1	26.1	120	2.18	0.0	0945
Type: 2" PVC	1.66	7.16	51.7	26.1	125	2.06	0.0	0950
Total Well Depth (TD): 14.5	2.0	7.15	51.6	26.3	134	1.91	0.0	0955
Static Water Level (WL): 3.47	2.33	7.13	51.6	26.2	141	1.79	0.0	1000
One Casing Volume(gal/L): 1	2.66	7.13	51.4	26.3	139	1.68	0.0	1005
Start Purge (hrs): 0925	3.0	7.12	51.2	26.2	118	1.58	0.0	1010
End Purge (hrs): 1020	3.33	7.11	51.1	26.2	119	1.50	0.0	1015
Total Purge Time (min): 55	3.66	7.11	50.8	26.2	118	1.42	0.0	1020
Total Vol. Purged (gal/L): 3.7								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PPL VOHs, BTEX, MTBE	HCl	3x40mL	✓
PAH	—	2x1L amber	✓
TRPH	HCl	2x1L amber	✓
EDB	HCl	2x40mL	✓
Lead	HNO_3	250mL HDPE	✓

OBSERVATIONS / NOTES:

- well screen fully submerged, water level stable at 3.35' bTOC
- pump rate ≈ 300 mL/min
- both PIDs malfunctioning
- @ 26.3°C - 20% sat DO = 1.614 mg/L
  TDS = 0.33 g/L ORP = -352

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Emily McRee

APPENDIX B

VALIDATION REPORTS

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**C. BRYAN**	**DATE:**	**MARCH 18, 2004**
FROM:	**ETHAN G. LEE**	**COPIES:**	**DV FILE**

SUBJECT: **INORGANIC DATA VALIDATION – LEAD AND MISCELLANEOUS PARAMETERS**
NAS KEY WEST – CTOs 301/318
SAMPLE DELIVERY GROUP (SDG) – WU0359

SAMPLES: 8/AQUEOUS/

FC-MW-05-0204	FC-MW-06-0204	FC-MW-22-0204
KW-DUP-03-0204	A824-MW-01-0204	A824-MW-02-0204
A824-MW-03-0204	RR-MW-06-0204	

Overview

The sample set for NAS Key West, CTOs 301/318, SDG WU0359, consists of eight (8) aqueous environmental samples. One (1) field duplicate pair (KW-DUP-03-0204 / FC-MW-06-0204) was included in this SDG.

The samples were analyzed for lead, nitrate, and sulfate. The samples were collected by Tetra Tech NUS on February 7 and 9, 2004 and analyzed by Katahdin Analytical Services. Lead analyses were conducted using SW846 method 6010B. Nitrate analyses were conducted using EPA method 353.2. Sulfate analyses were conducted using EPA method 375.4.

Metals analyses were conducted using Inductively Coupled Plasma (ICP) methodologies.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Recoveries
* • Laboratory Blank Analyses
* • Field Duplicate Results
  • Detection Limits

Detection Limits

The positive results reported for nitrate between the laboratory's practical quantitation limit (PQL) and the method detection limit (MDL) were qualified as estimated (J) due to uncertainty near the detection limit.

Executive Summary

Laboratory Performance: No laboratory quality control issues were noted for this SDG.

Other Factors Affecting Data Quality: Nitrate was qualified due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Inorganic Review", July 2002 and the NFESC document entitled "Navy IRCDQM" (September 1999).

The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS
Ethan G. Lee
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: M

nsample	FC-MW-05-0204
samp_date	2/7/2004
lab_id	WU0359-005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	1.56	U	

nsample	FC-MW-06-0204
samp_date	2/7/2004
lab_id	WU0359-003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	1.56	U	

nsample	FC-MW-22-0204
samp_date	2/7/2004
lab_id	WU0359-002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	42		

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: M

nsample	KW-DUP-03-0204
samp_date	2/7/2004
lab_id	WU0359-004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	FC-MW-06-0204

Parameter	Result	Val Qual	Qual Code
LEAD	1.56	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: M

nsample	A824-MW-01-0204	nsample	A824-MW-02-0204	nsample	A824-MW-03-0204
samp_date	2/9/2004	samp_date	2/9/2004	samp_date	2/9/2004
lab_id	WU0359-007	lab_id	WU0359-008	lab_id	WU0359-009
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	1.56	U	

Parameter	Result	Val Qual	Qual Code
LEAD	1.56	U	

Parameter	Result	Val Qual	Qual Code
LEAD	1.56	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: M

nsample	RR-MW-06-0204
samp_date	2/9/2004
lab_id	WU0359-006
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
LEAD	1.56	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: MISC

nsample	A824-MW-01-0204	nsample	A824-MW-02-0204	nsample	A824-MW-03-0204
samp_date	2/9/2004	samp_date	2/9/2004	samp_date	2/9/2004
lab_id	WU0359-7	lab_id	WU0359-8	lab_id	WU0359-9
qc_type	NM	qc_type	NM	qc_type	NM
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
NITRATE-N	MG/L	0.59		
SULFATE	MG/L	88		

Parameter	units	Result	Val Qual	Qual Code
NITRATE-N	MG/L	0.078		
SULFATE	MG/L	450		

Parameter	units	Result	Val Qual	Qual Code
NITRATE-N	MG/L	0.018	J	P
SULFATE	MG/L	100		

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: MISC

nsample	RR-MW-06-0204
samp_date	2/9/2004
lab_id	WU0359-6
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
NITRATE-N	MG/L	0.032	J	P
SULFATE	MG/L	200		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** A824-MW-01-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	1.56	U		P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** A824-MW-02-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	1.56	U		P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** A824-MW-03-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	1.56	U		P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** RR-MW-06-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	1.56	U		P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FC-MW-05-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	1.56	U		P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FC-MW-06-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	1.56	U		P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** FC-MW-22-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	42.0			P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** KW-DUP-03-0204

Matrix: WATER **SDG Name:** WU0359

Percent Solids: 0.00 **Lab Sample ID:** WU0359-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7439-92-1	LEAD, TOTAL	1.56	U		P	1	5.0	1.56

Color Before: N/A Clarity Before: N/A

Color After: N/A Clarity After: N/A

Comments:

Katahdin
ANALYTICAL SERVICES

ACCREDITED IN ACCORDANCE WITH nelac
Cert No E87604

Report of Analytical Results

Client: Amy Thomson
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: WU0359-7
Report Date: 01-MAR-04
Client PO: MSA-0402-N4113-05 N5079
Project: CTO297 NAS KEY WEST
SDG: WU0359

Sample Description	Matrix	Date Sampled	Date Received
A824-MW-01-0204	AQ	09-FEB-04	10-FEB-04

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	By	Prep. Method	Prep. Date	By	Footnotes
Nitrate As N	0.59 mg/L	.05	EPA 353.2	WG5970	10-FEB-04	PAG	N/A	N/A	N/A	
Sulfate-Turbidimetric	88. mg/L	10	EPA 375.4	WG6264	27-FEB-04	KGT	N/A	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Report of Analytical Results

Client: Amy Thomson
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: WU0359-8
Report Date: 01-MAR-04
Client PO: MSA-0402-N4113-05 N5079
Project: CTO297 NAS KEY WEST
SDG: WU0359

Sample Description	Matrix	Date Sampled	Date Received
A824-MW-02-0204	AQ	09-FEB-04	10-FEB-04

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	By	Prep. Method	Prep. Date	By	Footnotes
Nitrate As N	0.078 mg/L	.05	EPA 353.2	WG5970	10-FEB-04	PAG	N/A	N/A	N/A	
Sulfate-Turbidimetric	450 mg/L	20	EPA 375.4	WG6264	27-FEB-04	KGT	N/A	N/A	N/A	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Amy Thomson
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: WU0359-9
Report Date: 01-MAR-04
Client PO: MSA-0402-N4113-05 N5079
Project: CTO297 NAS KEY WEST
SDG: WU0359

Sample Description	Matrix	Date Sampled	Date Received
A824-MW-03-0204	AQ	09-FEB-04	10-FEB-04

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	By	Prep. Method	Prep. Date	By	Footnotes
Nitrate As N	J0.018 mg/L	.05	EPA 353.2	WG5970	10-FEB-04	PAG	N/A	N/A	N/A	
Sulfate-Turbidimetric	100 mg/L	10	EPA 375.4	WG6264	27-FEB-04	KGT	N/A	N/A	N/A	

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sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Amy Thomson
Tetra Tech NUS, Inc.
661 Andersen Drive
Pittsburgh,PA 15220

Lab Sample ID: WU0359-6
Report Date: 01-MAR-04
Client PO: MSA-0402-N4113-05 N5079
Project: CTO297 NAS KEY WEST
SDG: WU0359

Sample Description	Matrix	Date Sampled	Date Received
RR-MW-06-0204	AQ	09-FEB-04	10-FEB-04

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	By	Prep. Method	Prep. Date	By	Footnotes
Nitrate As N	J0.032 mg/L	.05	EPA 353.2	WG5970	10-FEB-04	PAG	N/A	N/A	N/A	
Sulfate-Turbidimetric	200 mg/L	10	EPA 375.4	WG6264	27-FEB-04	KGT	N/A	N/A	N/A	

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sales@katahdinlab.com

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG 0402235

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	A824-MW-01-0204	WU0359-007	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
M	UG/L	A824-MW-02-0204	WU0359-008	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
M	UG/L	A824-MW-03-0204	WU0359-009	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
M	UG/L	FC-MW-05-0204	WU0359-005	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	FC-MW-06-0204	WU0359-003	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	FC-MW-22-0204	WU0359-002	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	KW-DUP-03-0204	WU0359-004	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	RR-MW-06-0204	WU0359-006	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
NTA	MG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
NTA	MG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
NTA	MG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
NTA	MG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
SO4	MG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18
SO4	MG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18
SO4	MG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SO4	MG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18
OS	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	KW-DUP-03-0204RA	WU0359-4RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	FC-MW-05-0204RA	WU0359-5RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	03/04/2004	6	20	26
OS	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	03/03/2004	6	19	25
OS	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	FC-MW-22-0204	WU0359-2DL3	NM	02/07/2004	02/13/2004	03/07/2004	6	23	29
OS	UG/L	FC-MW-22-0204	WU0359-2DL3	NM	02/07/2004	02/13/2004	03/07/2004	6	23	29
OS	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	UG/L	FC-MW-05-0204RA	WU0359-5RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	03/03/2004	6	19	25
OS	UG/L	KW-DUP-03-0204RA	WU0359-4RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	03/04/2004	6	20	26
EDB	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	%	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	UG/L	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
OV	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	KWTB-020904	WU0359-1	NM	01/26/2004	02/13/2004	02/13/2004	18	0	18
OV	%	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	UG/L	KWTB-020904	WU0359-1	NM	01/26/2004	02/13/2004	02/13/2004	18	0	18
OV	UG/L	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
ETHA	UG/ML	RR-MW-06-0204	0402235-01A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
ETHA	UG/ML	A824-MW-02-0204	0402235-03A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHA	UG/ML	A824-MW-03-0204	0402235-04A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHA	UG/ML	A824-MW-01-0204	0402235-02A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	RR-MW-06-0204	0402235-01A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	A824-MW-03-0204	0402235-04A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	A824-MW-02-0204	0402235-03A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	A824-MW-01-0204	0402235-02A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	RR-MW-06-0204	0402235-01A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	A824-MW-01-0204	0402235-02A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	A824-MW-02-0204	0402235-03A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	A824-MW-03-0204	0402235-04A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
TPH	%	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	%	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	UG/L	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20

CWE358

TETRA TECH NUS, INC. | **CHAIN OF CUSTODY** | **NUMBER** 3832 | **PAGE** 1 **OF** 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
CTO 301/318	NAS Key West	Chuck Bryan	803-649-7963x345	Katahdin - Andrea Colby
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Emily McRee		Emily McRee	786-295-7331	340 County Rd. No.5
		CARRIER/WAYBILL NUMBER		CITY, STATE
		834182781646		Westbrook, ME 04092

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

DATE YEAR 2004	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	PPL VOHs+ BTEX MTBE	PAH + 1-2-methyl-naphthalene	TRPH	EDB	Lead	Methane	Nitrate+Sulfate	COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	G	G	P	G	P	
PRESERVATIVE USED									HCl	/	HCl	HCl	HNO3	HCl	/	
1/26	0950	KWTB-020904	—			QC	G	2	2							
2/7	1025	FC-MW-22-0204	FC-MW-22		—	GW	G	30	9	6	6	6	3✓			MS/MSD
2/7	1020	FC-MW-06-0204	FC-MW-06			GW	G	10	3	2	2	2	1✓			
2/7	0000	KW-DUP-03-0204	—			GW	G	10	3	2	2	2	1✓			
2/7	1220	FC-MW-05-0204	FC-MW-05		—	GW	G	10	3	2	2	2	1✓			
2/9	0925	RR-MW-06-0204	RR-MW-06		—	GW	G	13	3	2	2	2	1✓	2	1✓	
2/9	0830	A824-MW-01-0204	A824-MW-01		—	GW	G	13	3	2	2	2	1✓	2	1✓	
2/9	1130	A824-MW-02-0204	A824-MW-02		—	GW	G	13	3	2	2	2	1✓	2	1✓	
2/9	1105	A824-MW-03-0204	A824-MW-03		—	GW	G	13	3	2	2	2	1✓	2	1✓	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Emily McRee	2/9/04	1600	1. RECEIVED BY: [signature]	2/10/04	0900
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

11000

Katahdin
ANALYTICAL SERVICES

Cert. No. E87604

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
TETRA TECH NUS
CASE NAS KEY WEST CTO 297
TASK ORDER MANAGER: CHARLES BRYAN
WU0359

Sample Receipt

The following samples were received on February 10, 2004 and were logged in under Katahdin Analytical Services work order number WU0359 for a hardcopy due date of March 5, 2004.

KATAHDIN Sample No.	TTNUS Sample Identification
WU0359-1	KWTB-020904
WU0359-2	FC-MW-22-0204
WU0359-3	FC-MW-06-0204
WU0359-4	KW-DUP-03-0204
WU0359-5	FC-MW-05-0204
WU0359-6	RR-MW-06-0204
WU0359-7	A824-MW-01-0204
WU0359-8	A824-MW-02-0204
WU0359-9	A824-MW-03-0204

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Andrea J. Colby**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of Work Order WU0359 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, and III 1996, Office of Solid Waste and Emergency Response, U.S. EPA and/or Method for Determination of Petroleum Range Organics (Method #FL-PRO), Florida Department of Environmental Protection, November 1, 1995, and/or "Methods for the Determination of Organic Compounds in Drinking Water", U.S. EPA, Environmental Monitoring and Support Laboratory - Cincinnati (September 1995), and/or for the specific methods listed below or on the Report of Analysis. A matrix spike and matrix spike duplicate sample analysis was performed on sample WU0359-2, as per client request. Some manual integrations may have been performed due to split peaks and/or corrected baselines. All have been flagged with a "M" (software-generated) on the pertinent quantitation report.

FL-PRO Analysis

Samples WU0359-5 and 9 and the matrix spike sample, WG5979-3, had recoveries for the surrogate, o-terphenyl that were low and outside of the method acceptance limits. Since the recoveries for the second surrogate were acceptable, the samples were not reextracted.

The matrix spike duplicate sample, WG5979-4, had a PRO recovery of 112%, which is above the method acceptance limit of 101% and is likely due to matrix interference. Since the matrix spike sample, WG5979-3, and the laboratory control sample, WG5979-2, had acceptable recoveries, the associated samples were not reextracted.

8260B Analysis

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The acceptance limits for the MS/MSD are for a short list of the spiked compounds. Katahdin standard operating procedure is not to take corrective action until greater than ten percent of the spiked analytes (with the exception of the common laboratory contaminants acetone and methylene chloride) in the LCS are outside of the QC limits.

8270C SIM Analysis

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The acceptance limits for the MS/MSD are for a short list of the spiked compounds. Katahdin standard operating procedure is not to take corrective action until greater than ten percent of the spiked analytes (with the exception of the common laboratory phthalate ester contaminants) in the LCS are outside of the QC limits.

The initial calibration analyzed on the X instrument had %RSD values for several analytes that exceeded the method acceptance limit of 15%. For these analytes, either a linear or quadratic model was used for quantitation instead of an average response factor. The surrogate 2-methylnaphthalene-d10 failed for both the linear and quadratic models in the initial calibration curve due to the correlation coefficient being less than the method acceptance criteria of 0.990. This compound was calibrated using the average model.

504 Analysis

The opening and closing CV's (files 3UB1202 and 3UB1219) had high responses for the surrogate TCMX on Channel A, which resulted in %D's that were outside of the method acceptance limit. Since the surrogate on the B channel was acceptable, the associated samples were not reanalyzed. The surrogate recoveries may be biased high on channel A.

Samples WU0359-2, 4, 6, 8, the laboratory control duplicate sample (WG6101-3) and the matrix spike samples (WG6101-4 and 5) have high recoveries for the surrogate TCMX on channel A that are outside of laboratory established acceptance limits. Since the surrogate on the second channel was acceptable, the samples were not reextracted.

Sample WU0359-9 and the laboratory method blank WG6101-1 had a high recovery for the surrogate TCMX on both channels that is outside of laboratory established acceptance limits. Since a high recovery

would indicate a high bias and the samples did not detect any target analytes above the MDL, the samples were not reanalyzed.

There were no other protocol deviations or observations noted by the organic laboratory staff.

Metals Analysis

The samples of Katahdin SDG WU0359 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Waste", SW-846, November 1986, Third Edition.

Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Aqueous-matrix Katahdin Sample Nos. WU0359-(2-9) were digested for ICP analysis on 02/20/04 (QC Batch UB20ICW0) in accordance with USEPA Method 3050B. Katahdin Sample No. WU0359-2 was prepared with duplicate matrix-spiked aliquots.

ICP analyses of the Katahdin SDG WU0359 sample digestates were performed in accordance with USEPA Method 6010B, using a Thermo Jarrell Ash (TJA) Trace ICP. All samples were analyzed within holding times and all QC criteria were met with the following comments or exceptions:

Some of the results for run QC samples (ICV, ICB, CCV, CCB, ICSA, and ICSAB) included in the accompanying data package may have exceeded acceptance limits for some elements. Please note that all client samples and batch QC samples associated with out-of-control results for run QC samples were subsequently reanalyzed for the analytes in question.

Matrix QC Summary

The matrix-spiked aliquots of Katahdin Sample No. WU0359-2 was within the laboratory's acceptance criteria (75% - 125% recovery of the added element, if the native concentration is less than four times the amount added) for lead.

The matrix spike duplicate analysis of Katahdin Sample No. WU0359-2 was within the laboratory's acceptance limit (<20% relative difference between duplicate matrix spiked aliquots) for lead.

The serial dilution analyses of Katahdin Sample No. WU0359-2 was within the laboratory's ICP serial dilution acceptance limit (<10% difference between the original sample result and the result for a 5-fold dilution of the sample, if the result for the dilution is at least ten times the instrument detection limit) for lead.

Wet Chemistry Analysis

The samples of Work Order WU0359 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for nitrate and sulfate were performed according to "Methods for Chemical Analysis of Water and Wastes", EPA 600/4-79-020, 1979 Revised 1983, U.S. EPA.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Practical Quantitation Limit (PQL) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U PQL", where "PQL" is the numerical value of the Practical Quantitation Limit.

All analyses were performed within analytical hold times, and all quality control criteria were met. No deviations were noted by the Wet Chemistry group.

Subcontracted Analysis

Analyses for Methane were performed by a subcontract laboratory. Please refer to the subcontracted section of the data package.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager, Quality Assurance Officer, or the Data Management Supervisor as verified by the following signature.

Maria Crouch
03.09.04
Maria Crouch
Quality Assurance Officer

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Katahdin Analytical Services

SDG Name: WU0359 **SOW No.** SW846

Client Field ID	Lab Sample ID
A824-MW-01-0204	WU0359-007
A824-MW-02-0204	WU0359-008
A824-MW-03-0204	WU0359-009
FC-MW-05-0204	WU0359-005
FC-MW-06-0204	WU0359-003
FC-MW-22-0204	WU0359-002
FC-MW-22-0204	WU0359-002P
FC-MW-22-0204	WU0359-002S
KW-DUP-03-0204	WU0359-004
RR-MW-06-0204	WU0359-006

Were ICP interelement corrections applied ?	Yes
Were ICP background corrections applied ?	Yes
If yes - were raw data generated before application of background corrections ?	No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Molly Fabbricant Name: Molly Fabbricant

Date: 3.2.04 Title: Chemist

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: ICV

File: AUB23A Feb 23, 2004 16:50

Analyte	True	Found	%R (1)
ALUMINUM	20000.0	18181.91	90.9
CALCIUM	20000.0	19726.77	98.6
IRON	20000.0	19915.08	99.6
LEAD	550.0	544.60	99.0
MAGNESIUM	20000.0	20044.40	100.2

SAMPLE: CCV

File: AUB23A Feb 23, 2004 17:47

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	47794.26	95.6
CALCIUM	50000.0	50742.88	101.5
IRON	20000.0	19889.19	99.4
LEAD	1000.0	999.69	100.0
MAGNESIUM	50000.0	50473.20	100.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCV

File: AUB23A Feb 23, 2004 19:12

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	46979.94	94.0
CALCIUM	50000.0	50879.40	101.8
IRON	20000.0	19846.03	99.2
LEAD	1000.0	1009.60	101.0
MAGNESIUM	50000.0	50024.96	100.0

SAMPLE: CCV

File: AUB23A Feb 23, 2004 20:26

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	47947.86	95.9
CALCIUM	50000.0	51481.39	103.0
IRON	20000.0	19995.89	100.0
LEAD	1000.0	1033.74	103.4
MAGNESIUM	50000.0	50699.19	101.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCV

File: AUB23A Feb 23, 2004 20:59

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	46440.58	92.9
CALCIUM	50000.0	51504.66	103.0
IRON	20000.0	19996.48	100.0
LEAD	1000.0	1040.87	104.1
MAGNESIUM	50000.0	50045.42	100.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: ICV

File: AUB25A Feb 25, 2004 10:46

Analyte	True	Found	%R (1)
ALUMINUM	20000.0	18410.40	92.1
CALCIUM	20000.0	20016.84	100.1
IRON	20000.0	20143.76	100.7
LEAD	550.0	550.82	100.1
MAGNESIUM	20000.0	20308.35	101.5

SAMPLE: ICV

File: AUB25A Feb 25, 2004 10:54

Analyte	True	Found	%R (1)
ALUMINUM	20000.0	18655.13	93.3
CALCIUM	20000.0	20274.67	101.4
IRON	20000.0	20417.06	102.1
LEAD	550.0	557.74	101.4
MAGNESIUM	20000.0	20542.34	102.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCV

File: AUB25A Feb 25, 2004 11:38

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	47915.06	95.8
CALCIUM	50000.0	50512.04	101.0
IRON	20000.0	19817.83	99.1
LEAD	1000.0	992.86	99.3
MAGNESIUM	50000.0	50557.57	101.1

SAMPLE: CCV

File: AUB25A Feb 25, 2004 12:59

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	48832.92	97.7
CALCIUM	50000.0	51387.33	102.8
IRON	20000.0	20096.64	100.5
LEAD	1000.0	1003.26	100.3
MAGNESIUM	50000.0	51213.65	102.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCV

File: AUB25A Feb 25, 2004 14:19

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	48750.12	97.5
CALCIUM	50000.0	51670.25	103.3
IRON	20000.0	20125.99	100.6
LEAD	1000.0	1001.42	100.1
MAGNESIUM	50000.0	51057.62	102.1

SAMPLE: CCV

File: AUB25A Feb 25, 2004 15:40

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	48755.66	97.5
CALCIUM	50000.0	52800.69	105.6
IRON	20000.0	20503.54	102.5
LEAD	1000.0	1028.27	102.8
MAGNESIUM	50000.0	51698.47	103.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCV

File: AUB25A Feb 25, 2004 17:02

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	47575.19	95.2
CALCIUM	50000.0	52226.97	104.5
IRON	20000.0	20164.93	100.8
LEAD	1000.0	1021.34	102.1
MAGNESIUM	50000.0	50720.66	101.4

SAMPLE: CCV

File: AUB25A Feb 25, 2004 18:22

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	47939.40	95.9
CALCIUM	50000.0	53501.94	107.0
IRON	20000.0	20606.79	103.0
LEAD	1000.0	1055.33	105.5
MAGNESIUM	50000.0	51490.83	103.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCV

File: AUB25A Feb 25, 2004 19:23

Analyte	True	Found	%R (1)
ALUMINUM	50000.0	47056.90	94.1
CALCIUM	50000.0	53468.96	106.9
IRON	20000.0	20630.88	103.2
LEAD	1000.0	1074.42	107.4
MAGNESIUM	50000.0	51146.42	102.3

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWUB20ICW0

Matrix: WATER **SDG Name:** WU0359

QC Batch ID: UB20ICW0

Concentration Units : ug/L

Analyte	RESULT	C
LEAD	1.560	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: ICB

File: AUB23A Feb 23, 2004 16:56

Analyte	Result	C
ALUMINUM	29.20	U
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB23A Feb 23, 2004 17:54

Analyte	Result	C
ALUMINUM	29.20	U
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB23A Feb 23, 2004 19:19

Analyte	Result	C
ALUMINUM	50.37	B
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCB

File: AUB23A Feb 23, 2004 20:33

Analyte	Result	C
ALUMINUM	90.62	B
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB23A Feb 23, 2004 21:06

Analyte	Result	C
ALUMINUM	107.53	B
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: ICB

File: AUB25A Feb 25, 2004 11:01

Analyte	Result	C
ALUMINUM	29.20	U
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB25A Feb 25, 2004 11:45

Analyte	Result	C
ALUMINUM	29.20	U
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB25A Feb 25, 2004 13:05

Analyte	Result	C
ALUMINUM	29.20	U
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCB

File: AUB25A Feb 25, 2004 14:26

Analyte	Result	C
ALUMINUM	29.20	U
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB25A Feb 25, 2004 15:48

Analyte	Result	C
ALUMINUM	29.20	U
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB25A Feb 25, 2004 17:09

Analyte	Result	C
ALUMINUM	33.89	B
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Concentration Units: ug/L

SAMPLE: CCB

File: AUB25A Feb 25, 2004 18:29

Analyte	Result	C
ALUMINUM	65.63	B
CALCIUM	12.40	U
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

SAMPLE: CCB

File: AUB25A Feb 25, 2004 19:29

Analyte	Result	C
ALUMINUM	101.60	B
CALCIUM	-13.50	B
IRON	13.90	U
LEAD	1.56	U
MAGNESIUM	5.65	U

Katahdin
ANALYTICAL SERVICES

Accredited in accordance with nelac
Cert No E87604

Quality Control Report

Blank Sample Summary Report

Nitrate As N

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG5970	EPA 353.2	10-FEB-04	N/A	U 0.050 mg/L	.05 mg/L

Sulfate-Turbidimetric

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG6264	EPA 375.4	27-FEB-04	N/A	U 1.0 mg/L	1 mg/L

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** A

Instrument Name: TJA TRACE ICP **Date:** 7/23/03

Concentration Units: ug/L

Analyte	CRDL	IDL	M
LEAD	5.0	1.56	P

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** UB20ICW0

Matrix: WATER **SDG Name:** WU0359

Method: P **Prep Date:** 02/20/2004

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWUB20ICW0	LCSWUB20ICW0	0.05	0.05
PBWUB20ICW0	PBWUB20ICW0	0.05	0.05
FC-MW-22-0204	WU0359-002	0.05	0.05
FC-MW-22-0204P	WU0359-002P	0.05	0.05
FC-MW-22-0204S	WU0359-002S	0.05	0.05
FC-MW-06-0204	WU0359-003	0.05	0.05
KW-DUP-03-0204	WU0359-004	0.05	0.05
FC-MW-05-0204	WU0359-005	0.05	0.05
RR-MW-06-0204	WU0359-006	0.05	0.05
A824-MW-01-0204	WU0359-007	0.05	0.05
A824-MW-02-0204	WU0359-008	0.05	0.05
A824-MW-03-0204	WU0359-009	0.05	0.05

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Instrument ID: TJA TRACE ICP **File Name:** AUB23A

Date: 2/23/04 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements					
S0		1	16:06	Al	Ca	Fe	Pb	Mg	
S1		1	16:13	Al	Ca	Fe	Pb	Mg	
AL_IEC		1	16:23	Al	Ca	Fe	Pb	Mg	
FE_IEC		1	16:30	Al	Ca	Fe	Pb	Mg	
MN_IEC		1	16:36	Al	Ca	Fe	Pb	Mg	
IEC		1	16:43	Al	Ca	Fe	Pb	Mg	
ICV		1	16:50	Al	Ca	Fe	Pb	Mg	
ICB		1	16:56	Al	Ca	Fe	Pb	Mg	
ZZZZZZ		1	17:03						
CRI		1	17:10	Al	Ca	Fe	Pb	Mg	
ICSA		1	17:17	Al	Ca	Fe	Pb	Mg	
ICSAB		1	17:23	Al	Ca	Fe	Pb	Mg	
PQL		1	17:31	Al	Ca	Fe	Pb	Mg	
CRI		1	17:37	Al	Ca	Fe	Pb	Mg	
CCV		1	17:47	Al	Ca	Fe	Pb	Mg	
CCB		1	17:54	Al	Ca	Fe	Pb	Mg	
ZZZZZZ		1	18:05						
ZZZZZZ		1	18:12						
ZZZZZZ		1	18:19						
ZZZZZZ		1	18:25						
ZZZZZZ		1	18:32						
ZZZZZZ		5	18:39						
ZZZZZZ		1	18:45						
ZZZZZZ		1	18:52						
ZZZZZZ		1	18:59						
ZZZZZZ		1	19:05						
CCV		1	19:12	Al	Ca	Fe	Pb	Mg	
CCB		1	19:19	Al	Ca	Fe	Pb	Mg	
ZZZZZZ		1	19:26						
ZZZZZZ		1	19:32						
ZZZZZZ		1	19:39						
ZZZZZZ		1	19:46						
ZZZZZZ		1	19:52						
PBWUB20ICW0		1	19:59				Pb		
LCSWUB20ICW0		1	20:06				Pb		
ZZZZZZ		1	20:12						
ZZZZZZ		1	20:19						
CCV		1	20:26	Al	Ca	Fe	Pb	Mg	
CCB		1	20:33	Al	Ca	Fe	Pb	Mg	
CRI		1	20:39	Al	Ca	Fe	Pb	Mg	
ICSA		1	20:46	Al	Ca	Fe	Pb	Mg	
ICSAB		1	20:53	Al	Ca	Fe	Pb	Mg	
CCV		1	20:59	Al	Ca	Fe	Pb	Mg	
CCB		1	21:06	Al	Ca	Fe	Pb	Mg	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Instrument ID: TJA TRACE ICP **File Name:** AUB25A

Date: 2/25/04 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements		
S0		1	10:03	Al	Ca	Fe Pb Mg
S1		1	10:09	Al	Ca	Fe Pb Mg
AL_IEC		1	10:19	Al	Ca	Fe Pb Mg
FE_IEC		1	10:26	Al	Ca	Fe Pb Mg
MN_IEC		1	10:33	Al	Ca	Fe Pb Mg
IEC		1	10:39	Al	Ca	Fe Pb Mg
ICV		1	10:46	Al	Ca	Fe Pb Mg
ICV		1	10:54	Al	Ca	Fe Pb Mg
ICB		1	11:01	Al	Ca	Fe Pb Mg
PQL		1	11:08	Al	Ca	Fe Pb Mg
CRI		1	11:18	Al	Ca	Fe Pb Mg
ICSA		1	11:25	Al	Ca	Fe Pb Mg
ICSAB		1	11:32	Al	Ca	Fe Pb Mg
CCV		1	11:38	Al	Ca	Fe Pb Mg
CCB		1	11:45	Al	Ca	Fe Pb Mg
ZZZZZZ		1	11:52			
ZZZZZZ		1	11:58			
ZZZZZZ		1	12:05			
ZZZZZZ		1	12:12			
ZZZZZZ		5	12:19			
ZZZZZZ		5	12:25			
ZZZZZZ		5	12:32			
ZZZZZZ		5	12:39			
ZZZZZZ		5	12:45			
ZZZZZZ		25	12:52			
CCV		1	12:59	Al	Ca	Fe Pb Mg
CCB		1	13:05	Al	Ca	Fe Pb Mg
ZZZZZZ		5	13:12			
ZZZZZZ		5	13:19			
ZZZZZZ		2	13:26			
ZZZZZZ		2	13:32			
ZZZZZZ		2	13:39			
ZZZZZZ		2	13:46			
ZZZZZZ		2	13:52			
ZZZZZZ		2	13:59			
ZZZZZZ		1	14:06			
ZZZZZZ		1	14:12			
CCV		1	14:19	Al	Ca	Fe Pb Mg
CCB		1	14:26	Al	Ca	Fe Pb Mg
ZZZZZZ		5	14:33			
ZZZZZZ		1	14:39			
ZZZZZZ		1	14:46			
ZZZZZZ		1	14:53			
ZZZZZZ		1	14:59			
ZZZZZZ		1	15:06			
ZZZZZZ		1	15:13			
CRI		1	15:19	Al	Ca	Fe Pb Mg
ICSA		1	15:26	Al	Ca	Fe Pb Mg
ICSAB		1	15:33	Al	Ca	Fe Pb Mg
CCV		1	15:40	Al	Ca	Fe Pb Mg

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** WU0359

Instrument ID: TJA TRACE ICP **File Name:** AUB25A

Date: 2/25/04 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements					
CCB		1	15:48	Al		Ca	Fe	Pb	Mg
ZZZZZZ		1	15:55						
ZZZZZZ		1	16:02						
ZZZZZZ		5	16:08						
ZZZZZZ		1	16:15						
ZZZZZZ		1	16:22						
ZZZZZZ		1	16:28						
ZZZZZZ		1	16:35						
ZZZZZZ		1	16:42						
ZZZZZZ		1	16:48						
ZZZZZZ		1	16:55						
CCV		1	17:02	Al		Ca	Fe	Pb	Mg
CCB		1	17:09	Al		Ca	Fe	Pb	Mg
ZZZZZZ		1	17:15						
ZZZZZZ		1	17:22						
ZZZZZZ		1	17:29						
WU0359-002	FC-MW-22-0204	1	17:35					Pb	
WU0359-002L	FC-MW-22-0204L	5	17:42					Pb	
WU0359-002P	FC-MW-22-0204P	1	17:49					Pb	
WU0359-002S	FC-MW-22-0204S	1	17:55					Pb	
WU0359-003	FC-MW-06-0204	1	18:02					Pb	
WU0359-004	KW-DUP-03-0204	1	18:09					Pb	
WU0359-005	FC-MW-05-0204	1	18:16					Pb	
CCV		1	18:22	Al		Ca	Fe	Pb	Mg
CCB		1	18:29	Al		Ca	Fe	Pb	Mg
WU0359-006	RR-MW-06-0204	1	18:36					Pb	
WU0359-007	A824-MW-01-0204	1	18:42					Pb	
WU0359-008	A824-MW-02-0204	1	18:49					Pb	
WU0359-009	A824-MW-03-0204	1	18:56					Pb	
CRI		1	19:03	Al		Ca	Fe	Pb	Mg
ICSA		1	19:09	Al		Ca	Fe	Pb	Mg
ICSAB		1	19:16	Al		Ca	Fe	Pb	Mg
CCV		1	19:23	Al		Ca	Fe	Pb	Mg
CCB		1	19:29	Al		Ca	Fe	Pb	Mg

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**C. BRYAN**	**DATE:**	**APRIL 2, 2004**
FROM:	**SETH C. STAFFEN**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOA/PAH/TPH/OVG**
CTO(s): 301 and 318 - NAS KEY WEST
SDG: WU0359

SAMPLES: CTO 301: 5/AQUEOUS

FC-MW-05-0204 FC-MW-06-0204
FC-MW-22-0204 KW-DUP-03-0204
KWTB-020904

CTO 318: 4/AQUEOUS

A824-MW-01-0204 A824-MW-02-0204
A824-MW-03-0204 RR-MW-06-0204

OVERVIEW

The sample set for CTOs 301 and 318, NAS Key West, SDG WU0359 consists of eight (8) aqueous environmental samples and one (1) trip blank. All samples except the trip blank were analyzed for select volatile organic compounds, 1,2-dibromoethane, polynuclear aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons. In addition, the samples listed under CTO 318 were analyzed for methane. The trip blank (KWTB-020904) was analyzed for select volatile organic compounds only. One field duplicate pair was included in this SDG: FC-MW-06-0204 / KW-DUP-03-0204.

The samples were collected by Tetra Tech NUS on February 7th and 9th, 2004 and analyzed by Katahdin Analytical Services and Air Toxics LTD. All analyses were conducted in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria using SW-846 Methods 8260B, 8270C-SIM, Florida PRO, EPA 504.1, and RSK 175 analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
• Initial and continuing calibration/recoveries
• Laboratory method blank results
* • Field duplicate precision
• Detection limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

The text of this report is formulated to address only gross non-compliances resulting in the rejection of data and the elimination of false positives.

VOLATILE

The following compounds were detected in the laboratory method blank at the maximum concentrations indicated below:

Compound	Concentration	Action Level
Methylene chloride	2.0 ug/L	20 ug/L
Chloroform	0.3 ug/L	1.5 ug/L

Blank Actions

- Value < Reporting Limit (RL); report RL followed by a U.
- Value > RL and < action level; report value followed by a U.
- Value > RL and > action level; report value unqualified.

An action level of 10X (methylene chloride) and 5X (chloroform) the maximum contaminant concentrations were established to evaluate laboratory contamination. Dilution factors and sample aliquots were taken into consideration during the application of all action levels. No qualification action was taken because the reported results for the aforementioned compounds were nondetected in the environmental samples.

The matrix spike and matrix spike duplicate percent recoveries for 2-chloroethyl vinyl ether were zero and the percent recoveries exceeded the upper quality control limits for 1,1,2-trichloroethane. The nondetected result for 2-chloroethyl vinyl ether was rejected, UR, in the unspiked sample FC-MW-22-0204 because the %R was less than 10%. No qualification action was taken for 1,1,2-trichloroethane based on MS/MSD %R noncompliance alone.

The laboratory control sample %R fell below the lower quality control limit for 2-chloroethyl vinyl ether (but > 10%). No qualification action was taken based on the LCS %R noncompliance.

EDB

The continuing calibration on 2/18/04 at 1836 contained a percent difference (%D) that exceeded the 15% quality control limit for 1,2-dibromoethane. No qualification action was taken because the noncompliance was not a gross exceedance (< 90%).

The surrogate recoveries of tetrachloro-m-xylene exceeded the upper quality control limits for sample A824-MW-03-0204 on both columns. No qualification action was taken because the reported result was nondetected. The surrogate recovery exceeded the upper quality control limit for samples FC-MW-22-0204, KW-DUP-03-0204, RR-MW-06-0204, and A824-MW-02-0204 on one column. No qualification action was taken because the other column was complaint

PAH

The continuing calibration on 3/4/04 at 1547 contained percent differences (%Ds) that exceeded the 25% quality control limit for indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene. No qualification action was taken because results were nondetects and the noncompliance was < 90%.

The continuing calibration on 3/5/04 at 0941 contained a percent difference (%D) that exceeded the 25% quality control limit for benzo(g,h,i)perylene. No qualification action was taken because the result was a nondetect and the noncompliance was < 90%.

The surrogate recoveries were diluted out of sample FC-MW-22-0204 that was analyzed at a 100X dilution. No qualification action taken because the sample was analyzed at a dilution.

The matrix spike and matrix spike duplicate %Rs exceeded the upper quality control limit for naphthalene and 2-methylnaphthalene. No qualification action was taken on the unspiked sample FC-MW-22-0204 because the reported results were nondetects. The matrix spike and matrix spike duplicate %RPD exceeded the quality control limit for indeno(1,2,3-cd)pyrene. No qualification action was taken because the matrix spike and matrix spike duplicate %Rs were compliant.

The linear calibration range of the instrument was exceeded by 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene in sample FC-MW-22-0204. The results for the aforementioned compounds were reported from the 100X dilution analysis. The remaining compounds were reported from the undiluted analysis.

TPH

The matrix spike duplicate %R (FC-MW-22-0204) exceeded the upper quality control limit for TPH. No qualification action was taken because the matrix spike %R was compliant.

The surrogate recovery of o-terphenyl fell below the lower quality control limit for samples FC-MW-05-0204 and A824-MW-03-0204. No qualification action was taken.

Methane

All quality control parameters were met for this fraction.

Additional Comments

Positive results reported below the reporting limit (RL) were qualified as estimated, J.

The laboratory did not report down to the required reporting limits (RL) for the following compounds:

	Required RL (ug/L)	Laboratory RL (ug/L)
1,1,2,2-Tetrachloroethane	0.2	1.0
Bromodichloromethane	0.6	1.0
Chlorodibromomethane	0.4	1.0
Cis-1,3-dichloropropene	0.2	1.0
Trans-1,3-dichloropropene	0.2	1.0
Vinyl chloride	1.0	2.0

EXECUTIVE SUMMARY

Laboratory Performance Issues: Methylene chloride and chloroform were detected in the laboratory method blank. Continuing calibration %Ds, surrogate %Rs, and LCS %Rs noncompliances were noted.

Other Factors Affecting Data Quality: , MS/MSD %R and %RPD noncompliances were noted.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October, 1999), and the NFESC guidelines IRCDQM (September, 1999). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS

Seth C. Staffen
Environmental Scientist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: OV

nsample	FC-MW-05-0204	nsample	FC-MW-05-0204	nsample	FC-MW-06-0204
samp_date	2/7/2004	samp_date	2/7/2004	samp_date	2/7/2004
lab_id	WU0359-5	lab_id	WU0359-5	lab_id	WU0359-3
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.02	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	1	U	
M+P-XYLENES	2	U	
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.02	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	0.3	J	P
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	0.4	J	P
M+P-XYLENES	0.4	J	P
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	0.4	J	P
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: OV

nsample	FC-MW-06-0204
samp_date	2/7/2004
lab_id	WU0359-3
qc_type	NM
units	UG/L
Pct_Solids	.
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

nsample	FC-MW-22-0204
samp_date	2/7/2004
lab_id	WU0359-2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.02	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	UR	D
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	38		
M+P-XYLENES	7		
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	0.7	J	P
TOTAL XYLENES	7		
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

nsample	FC-MW-22-0204
samp_date	2/7/2004
lab_id	WU0359-2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: OV

nsample	KW-DUP-03-0204
samp_date	2/7/2004
lab_id	WU0359-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	FC-MW-06-0204

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.02	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	0.3	J	P
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	0.4	J	P
M+P-XYLENES	0.4	J	P
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	0.4	J	P
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

nsample	KW-DUP-03-0204
samp_date	2/7/2004
lab_id	WU0359-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	FC-MW-06-0204

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

nsample	KWTB-020904
samp_date	1/26/2004
lab_id	WU0359-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	1	U	
M+P-XYLENES	2	U	
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	
VINYL CHLORIDE	2	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: OV

nsample	A824-MW-01-0204
samp_date	2/9/2004
lab_id	WU0359-7
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.02	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	1	U	
M+P-XYLENES	2	U	
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

nsample	A824-MW-01-0204
samp_date	2/9/2004
lab_id	WU0359-7
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

nsample	A824-MW-02-0204
samp_date	2/9/2004
lab_id	WU0359-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.02	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	0.1	J	P
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	1	U	
M+P-XYLENES	2	U	
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	0.2	J	P
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: OV

nsample	A824-MW-02-0204
samp_date	2/9/2004
lab_id	WU0359-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

nsample	A824-MW-03-0204
samp_date	2/9/2004
lab_id	WU0359-9
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.02	U	
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	1	U	
M+P-XYLENES	2	U	
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

nsample	A824-MW-03-0204
samp_date	2/9/2004
lab_id	WU0359-9
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: OV

nsample	RR-MW-06-0204	nsample	RR-MW-06-0204
samp_date	2/9/2004	samp_date	2/9/2004
lab_id	WU0359-6	lab_id	WU0359-6
qc_type	NM	qc_type	NM
units	UG/L	units	UG/L
Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	1	U	
1,1,2,2-TETRACHLOROETHANE	1	U	
1,1,2-TRICHLOROETHANE	1	U	
1,1-DICHLOROETHANE	1	U	
1,1-DICHLOROETHENE	1	U	
1,2-DIBROMOETHANE	0.036		
1,2-DICHLOROETHANE	1	U	
1,2-DICHLOROPROPANE	1	U	
2-CHLOROETHYL VINYL ETHER	1	U	
BENZENE	1	U	
BROMODICHLOROMETHANE	1	U	
BROMOFORM	1	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	1	U	
CHLOROBENZENE	1	U	
CHLORODIBROMOMETHANE	1	U	
CHLOROETHANE	2	U	
CHLOROFORM	1	U	
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	1	U	
CIS-1,3-DICHLOROPROPENE	1	U	
ETHYLBENZENE	1	U	
M+P-XYLENES	2	U	
METHYL TERT-BUTYL ETHER	2	U	
METHYLENE CHLORIDE	2	U	
O-XYLENE	1	U	
TETRACHLOROETHENE	1	U	
TOLUENE	1	U	
TOTAL XYLENES	3	U	
TRANS-1,2-DICHLOROETHENE	1	U	
TRANS-1,3-DICHLOROPROPENE	1	U	
TRICHLOROETHENE	1	U	

Parameter	Result	Val Qual	Qual Code
VINYL CHLORIDE	2	U	

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: PAH

nsample	FC-MW-05-0204	nsample	FC-MW-06-0204	nsample	FC-MW-22-0204
samp_date	2/7/2004	samp_date	2/7/2004	samp_date	2/7/2004
lab_id	WU0359-5RA	lab_id	WU0359-3	lab_id	WU0359-2
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.098	J	P
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.099	J	P
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	26		
2-METHYLNAPHTHALENE	53		
ACENAPHTHENE	0.092	J	P
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	150		
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: PAH

nsample	KW-DUP-03-0204
samp_date	2/7/2004
lab_id	WU0359-4RA
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	FC-MW-06-0204

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.091	J	P
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.088	J	P
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: PAH

nsample	A824-MW-01-0204	nsample	A824-MW-02-0204	nsample	A824-MW-03-0204
samp_date	2/9/2004	samp_date	2/9/2004	samp_date	2/9/2004
lab_id	WU0359-7	lab_id	WU0359-8	lab_id	WU0359-9
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: PAH

nsample	RR-MW-06-0204
samp_date	2/9/2004
lab_id	WU0359-6
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: PET

nsample	FC-MW-05-0204	nsample	FC-MW-06-0204	nsample	FC-MW-22-0204
samp_date	2/7/2004	samp_date	2/7/2004	samp_date	2/7/2004
lab_id	WU0359-5	lab_id	WU0359-3	lab_id	WU0359-2
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	500	U	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	500	U	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	2700		

PROJ_NO: 5658

SDG: WU0359 MEDIA: WATER DATA FRACTION: PET

nsample	KW-DUP-03-0204
samp_date	2/7/2004
lab_id	WU0359-4
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	FC-MW-06-0204

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	500	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: PET

nsample	A824-MW-01-0204
samp_date	2/9/2004
lab_id	WU0359-7
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	500	U	

nsample	A824-MW-02-0204
samp_date	2/9/2004
lab_id	WU0359-8
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	500	U	

nsample	A824-MW-03-0204
samp_date	2/9/2004
lab_id	WU0359-9
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	500	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: PET

nsample	RR-MW-06-0204
samp_date	2/9/2004
lab_id	WU0359-6
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	500	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: OVG

nsample	A824-MW-01-0204	nsample	A824-MW-02-0204	nsample	A824-MW-03-0204
samp_date	2/9/2004	samp_date	2/9/2004	samp_date	2/9/2004
lab_id	0402235-02A	lab_id	0402235-03A	lab_id	0402235-04A
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/L	units	UG/L	units	UG/L
Pct_Solids		Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
METHANE	0.12		

Parameter	Result	Val Qual	Qual Code
METHANE	0.011		

Parameter	Result	Val Qual	Qual Code
METHANE	0.01	U	

PROJ_NO: 4779

SDG: WU0359 MEDIA: WATER DATA FRACTION: OVG

nsample	RR-MW-06-0204
samp_date	2/9/2004
lab_id	0402235-01A
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
METHANE	0.052		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-7
Client ID: A824-MW-01-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	U	1	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	U	2	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		94%				
17060-07-0	1,2-Dichloroethane-D4		97%				
2037-26-5	Toluene-D8		94%				
460-00-4	P-Bromofluorobenzene		101%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-7
Client ID: A824-MW-01-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		116%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-8
Client ID: A824-MW-02-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	J	0.10	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	J	0.2	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	U	2	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		95%				
17060-07-0	1,2-Dichloroethane-D4		100%				
2037-26-5	Toluene-D8		96%				
460-00-4	P-Bromofluorobenzene		102%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CT0297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-8
Client ID: A824-MW-02-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		*143%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-9
Client ID: A824-MW-03-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	U	1	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	U	2	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		94%				
17060-07-0	1,2-Dichloroethane-D4		99%				
2037-26-5	Toluene-D8		94%				
460-00-4	P-Bromofluorobenzene		101%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-9
Client ID: A824-MW-03-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		*155%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-6
Client ID: RR-MW-06-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	U	1	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	U	2	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		93%				
17060-07-0	1,2-Dichloroethane-D4		98%				
2037-26-5	Toluene-D8		96%				
460-00-4	P-Bromofluorobenzene		101%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-6
Client ID: RR-MW-06-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		*137%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-5
Client ID: FC-MW-05-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	U	1	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	U	2	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		97%				
17060-07-0	1,2-Dichloroethane-D4		101%				
2037-26-5	Toluene-D8		96%				
460-00-4	P-Bromofluorobenzene		99%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-5
Client ID: FC-MW-05-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		91%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-3
Client ID: FC-MW-06-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	J	0.3	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	J	0.4	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	J	0.4	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		95%				
17060-07-0	1,2-Dichloroethane-D4		97%				
2037-26-5	Toluene-D8		98%				
460-00-4	P-Bromofluorobenzene		104%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-3
Client ID: FC-MW-06-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		114%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-2
Client ID: FC-MW-22-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	U	1	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	J	0.7	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene		38	1.0	1	1	0.2
1330-20-7	Xylenes (total)		7	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes		7	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		93%				
17060-07-0	1,2-Dichloroethane-D4		99%				
2037-26-5	Toluene-D8		99%				
460-00-4	P-Bromofluorobenzene		106%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-2
Client ID: FC-MW-22-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		*135%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-4
Client ID: KW-DUP-03-0204
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	J	0.3	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	J	0.4	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	J	0.4	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		95%				
17060-07-0	1,2-Dichloroethane-D4		99%				
2037-26-5	Toluene-D8		98%				
460-00-4	P-Bromofluorobenzene		100%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-4
Client ID: KW-DUP-03-0204
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		*133%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 01/26/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-1
Client ID: KWTB-020904
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	2	1.0	2	2	0.6
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.2
74-83-9	Bromomethane	U	2	1.0	2	2	0.6
75-00-3	Chloroethane	U	2	1.0	2	2	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride	U	2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	U	1	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	U	1	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	U	2	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		94%				
17060-07-0	1,2-Dichloroethane-D4		96%				
2037-26-5	Toluene-D8		98%				
460-00-4	P-Bromofluorobenzene		102%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/05/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-7
Client ID: A824-MW-01-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.048
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.048
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.077
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.058
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.077
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.077
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.10
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.086
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.12
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.067
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.086
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.077
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.086
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.096
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.14
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.077
90-12-0	1-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
7297-45-2	2-Methylnaphthalene-d10		83%				
81103-79-9	Fluorene-d10		76%				
1718-52-1	Pyrene-d10		93%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/05/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-8
Client ID: A824-MW-02-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.049
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.078
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.049
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.078
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.059
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.078
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.078
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.11
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.088
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.12
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.069
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.088
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.078
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.088
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.098
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.15
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.078
90-12-0	1-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.078
7297-45-2	2-Methylnaphthalene-d10		65%				
81103-79-9	Fluorene-d10		63%				
1718-52-1	Pyrene-d10		79%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/05/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-9
Client ID: A824-MW-03-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.048
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.076
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.048
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.076
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.057
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.076
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.076
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.10
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.086
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.11
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.067
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.086
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.076
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.086
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.095
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.14
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.076
90-12-0	1-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.076
7297-45-2	2-Methylnaphthalene-d10		79%				
81103-79-9	Fluorene-d10		67%				
1718-52-1	Pyrene-d10		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/05/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-6
Client ID: RR-MW-06-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.048
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.048
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.077
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.058
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.077
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.077
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.10
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.086
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.12
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.067
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.086
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.077
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.086
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.096
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.14
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.077
90-12-0	1-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
7297-45-2	2-Methylnaphthalene-d10		64%				
81103-79-9	Fluorene-d10		54%				
1718-52-1	Pyrene-d10		73%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/05/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-5RA
Client ID: FC-MW-05-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.048
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.048
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.077
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.058
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.077
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.077
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.10
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.086
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.12
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.067
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.086
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.077
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.086
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.096
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.14
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.077
90-12-0	1-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
7297-45-2	2-Methylnaphthalene-d10		60%				
81103-79-9	Fluorene-d10		58%				
1718-52-1	Pyrene-d10		92%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/04/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-3
Client ID: FC-MW-06-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	0.099	1.0	0.20	0.20	0.047
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.075
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.047
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.075
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.057
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.075
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.075
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.10
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.085
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.11
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.066
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.085
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.075
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.085
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.094
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.14
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.075
90-12-0	1-Methylnaphthalene	J	0.098	1.0	0.20	0.20	0.075
7297-45-2	2-Methylnaphthalene-d10		87%				
81103-79-9	Fluorene-d10		76%				
1718-52-1	Pyrene-d10		122%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/03/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-2
Client ID: FC-MW-22-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	E	47	1.0	0.20	0.20	0.048
91-57-6	2-Methylnaphthalene	E	29	1.0	0.20	0.20	0.078
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.048
83-32-9	Acenaphthene	J	0.092	1.0	0.20	0.20	0.078
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.058
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.078
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.078
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.11
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.087
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.12
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.068
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.087
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.078
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.087
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.097
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.14
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.078
90-12-0	1-Methylnaphthalene	E	16	1.0	0.20	0.20	0.078
7297-45-2	2-Methylnaphthalene-d10		82%				
81103-79-9	Fluorene-d10		71%				
1718-52-1	Pyrene-d10		80%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/07/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-2DL3
Client ID: FC-MW-22-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene		150	100	0.20	19	4.8
91-57-6	2-Methylnaphthalene		53	100	0.20	19	7.8
208-96-8	Acenaphthylene	U	19	100	0.20	19	4.8
83-32-9	Acenaphthene	U	19	100	0.20	19	7.8
86-73-7	Fluorene	U	19	100	0.20	19	5.8
85-01-8	Phenanthrene	U	19	100	0.20	19	7.8
120-12-7	Anthracene	U	19	100	0.20	19	7.8
206-44-0	Fluoranthene	U	19	100	0.20	19	11
129-00-0	Pyrene	U	19	100	0.20	19	8.7
56-55-3	Benzo(a)anthracene	U	19	100	0.20	19	12
218-01-9	Chrysene	U	19	100	0.20	19	6.8
205-99-2	Benzo(b)fluoranthene	U	19	100	0.20	19	8.7
207-08-9	Benzo(k)fluoranthene	U	19	100	0.20	19	7.8
50-32-8	Benzo(a)pyrene	U	19	100	0.20	19	8.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	19	100	0.20	19	9.7
53-70-3	Dibenzo(a,h)anthracene	U	19	100	0.20	19	14
191-24-2	Benzo(g,h,i)perylene	U	19	100	0.20	19	7.8
90-12-0	1-Methylnaphthalene		26	100	0.20	19	7.8
7297-45-2	2-Methylnaphthalene-d10		D				
81103-79-9	Fluorene-d10		D				
1718-52-1	Pyrene-d10		D				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/05/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-4RA
Client ID: KW-DUP-03-0204
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	0.088	1.0	0.20	0.20	0.047
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.075
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.047
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.075
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.057
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.075
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.075
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.10
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.085
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.11
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.066
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.085
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.075
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.085
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.094
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.14
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.075
90-12-0	1-Methylnaphthalene	J	0.091	1.0	0.20	0.20	0.075
7297-45-2	2-Methylnaphthalene-d10		75%				
81103-79-9	Fluorene-d10		71%				
1718-52-1	Pyrene-d10		97%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-7
Client ID: A824-MW-01-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	270
	n-Triacontane-D62		93%				
	O-Terphenyl		101%				

Page 01 of 01 CUB2068.d

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-8
Client ID: A824-MW-02-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	280
	n-Triacontane-D62		77%				
	O-Terphenyl		84%				

Page 01 of 01 CUB2069.d

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-9
Client ID: A824-MW-03-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	270
	n-Triacontane-D62		68%				
	O-Terphenyl		* 79%				

Page 01 of 01 CUB2070.d

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/09/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-6
Client ID: RR-MW-06-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	280
	n-Triacontane-D62		80%				
	O-Terphenyl		89%				

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KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-5
Client ID: FC-MW-05-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	270
	n-Triacontane-D62		70%				
	O-Terphenyl		* 75%				

Page 01 of 01 CUB2066.d

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-3
Client ID: FC-MW-06-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	270
	n-Triacontane-D62		77%				
	O-Terphenyl		86%				

Page 01 of 01 CUB2064.d

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-2
Client ID: FC-MW-22-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics		2700	1.0	500	500	280
	n-Triacontane-D62		90%				
	O-Terphenyl		94%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WU0359-4
Client ID: KW-DUP-03-0204
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	270
	n-Triacontane-D62		81%				
	O-Terphenyl		90%				

Page 01 of 01 CUB2065.d

AIR TOXICS LTD.

SAMPLE NAME: A824-MW-01-0204

ID#: 0402235-02A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7021912	Date of Collection:	2/9/04
Dil. Factor:	1.00	Date of Analysis:	2/19/04 02:07 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.12
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: A824-MW-02-0204

ID#: 0402235-03A

MODIFIED METHOD RSK-175 GC/FID

File Name:	702913	Date of Collection:	2/9/04
Dil. Factor:	1.00	Date of Analysis:	2/19/04 02:28 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.011
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: A824-MW-03-0204

ID#: 0402235-04A

MODIFIED METHOD RSK-175 GC/FID

File Name:	702.014	Date of Collection:	2/9/04
Dil. Factor:	1.00	Date of Analysis:	2/19/04 02:19 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

AIR TOXICS LTD.

SAMPLE NAME: RR-MW-06-0204

ID#: 0402235-01A

MODIFIED METHOD RSK-175 GC/FID

File Name:	70219.71	Date of Collection:	2/9/04
Dil Factor:	1.00	Date of Analysis:	2/19/04 01:45 PM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	0.052
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: VOA Vial-40 mL

APPENDIX C

SUPPORT DOCUMENTATION

TETRA TECH NUS, INC.
CTO297 NAS KEY WEST
WU0359

KATAHDIN ANALYTICAL SERVICES, INC.
340 COUNTY ROAD 5
WESTBROOK, ME 04092

Katahdin
ANALYTICAL SERVICES

Cert. No. E87604

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
TETRA TECH NUS
CASE NAS KEY WEST CTO 297
TASK ORDER MANAGER: CHARLES BRYAN
WU0359

Sample Receipt

The following samples were received on February 10, 2004 and were logged in under Katahdin Analytical Services work order number WU0359 for a hardcopy due date of March 5, 2004.

KATAHDIN Sample No.	TTNUS Sample Identification
WU0359-1	KWTB-020904
WU0359-2	FC-MW-22-0204
WU0359-3	FC-MW-06-0204
WU0359-4	KW-DUP-03-0204
WU0359-5	FC-MW-05-0204
WU0359-6	RR-MW-06-0204
WU0359-7	A824-MW-01-0204
WU0359-8	A824-MW-02-0204
WU0359-9	A824-MW-03-0204

The samples were logged in for the analyses specified on the chain of custody form. All problems encountered and resolved during sample receipt have been documented on the applicable chain of custody forms.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Andrea J. Colby**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of Work Order WU0359 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846. 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, and III 1996, Office of Solid Waste and Emergency Response, U.S. EPA and/or Method for Determination of Petroleum Range Organics (Method #FL-PRO), Florida Department of Environmental Protection, November 1, 1995, and/or "Methods for the Determination of Organic Compounds in Drinking Water", U.S. EPA, Environmental Monitoring and Support Laboratory - Cincinnati (September 1995), and/or for the specific methods listed below or on the Report of Analysis. A matrix spike and matrix spike duplicate sample analysis was performed on sample WU0359-2, as per client request. Some manual integrations may have been performed due to split peaks and/or corrected baselines. All have been flagged with a "M" (software-generated) on the pertinent quantitation report.

FL-PRO Analysis

Samples WU0359-5 and 9 and the matrix spike sample, WG5979-3, had recoveries for the surrogate, o-terphenyl that were low and outside of the method acceptance limits. Since the recoveries for the second surrogate were acceptable, the samples were not reextracted.

The matrix spike duplicate sample, WG5979-4, had a PRO recovery of 112%, which is above the method acceptance limit of 101% and is likely due to matrix interference. Since the matrix spike sample, WG5979-3, and the laboratory control sample, WG5979-2, had acceptable recoveries, the associated samples were not reextracted.

8260B Analysis

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The acceptance limits for the MS/MSD are for a short list of the spiked compounds. Katahdin standard operating procedure is not to take corrective action until greater than ten percent of the spiked analytes (with the exception of the common laboratory contaminants acetone and methylene chloride) in the LCS are outside of the QC limits.

8270C SIM Analysis

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are statistically derived for the full list of spiked compounds. The acceptance limits for the MS/MSD are for a short list of the spiked compounds. Katahdin standard operating procedure is not to take corrective action until greater than ten percent of the spiked analytes (with the exception of the common laboratory phthalate ester contaminants) in the LCS are outside of the QC limits.

The initial calibration analyzed on the X instrument had %RSD values for several analytes that exceeded the method acceptance limit of 15%. For these analytes, either a linear or quadratic model was used for quantitation instead of an average response factor. The surrogate 2-methylnaphthalene-d10 failed for both the linear and quadratic models in the initial calibration curve due to the correlation coefficient being less than the method acceptance criteria of 0.990. This compound was calibrated using the average model.

504 Analysis

The opening and closing CV's (files 3UB1202 and 3UB1219) had high responses for the surrogate TCMX on Channel A, which resulted in %D's that were outside of the method acceptance limit. Since the surrogate on the B channel was acceptable, the associated samples were not reanalyzed. The surrogate recoveries may be biased high on channel A.

Samples WU0359-2, 4, 6, 8, the laboratory control duplicate sample (WG6101-3) and the matrix spike samples (WG6101-4 and 5) have high recoveries for the surrogate TCMX on channel A that are outside of laboratory established acceptance limits. Since the surrogate on the second channel was acceptable, the samples were not reextracted.

Sample WU0359-9 and the laboratory method blank WG6101-1 had a high recovery for the surrogate TCMX on both channels that is outside of laboratory established acceptance limits. Since a high recovery

would indicate a high bias and the samples did not detect any target analytes above the MDL, the samples were not reanalyzed.

There were no other protocol deviations or observations noted by the organic laboratory staff.

Metals Analysis

The samples of Katahdin SDG WU0359 were prepared and analyzed for metals in accordance with the "Test Methods for Evaluating Solid Waste", SW-846, November 1986, Third Edition.

Inductively-Coupled Plasma Atomic Emission Spectroscopic Analysis (ICP)

Aqueous-matrix Katahdin Sample Nos. WU0359-(2-9) were digested for ICP analysis on 02/20/04 (QC Batch UB20ICW0) in accordance with USEPA Method 3050B. Katahdin Sample No. WU0359-2 was prepared with duplicate matrix-spiked aliquots.

ICP analyses of the Katahdin SDG WU0359 sample digestates were performed in accordance with USEPA Method 6010B, using a Thermo Jarrell Ash (TJA) Trace ICP. All samples were analyzed within holding times and all QC criteria were met with the following comments or exceptions:

Some of the results for run QC samples (ICV, ICB, CCV, CCB, ICSA, and ICSAB) included in the accompanying data package may have exceeded acceptance limits for some elements. Please note that all client samples and batch QC samples associated with out-of-control results for run QC samples were subsequently reanalyzed for the analytes in question.

Matrix QC Summary

The matrix-spiked aliquots of Katahdin Sample No. WU0359-2 was within the laboratory's acceptance criteria (75% - 125% recovery of the added element, if the native concentration is less than four times the amount added) for lead.

The matrix spike duplicate analysis of Katahdin Sample No. WU0359-2 was within the laboratory's acceptance limit (<20% relative difference between duplicate matrix spiked aliquots) for lead.

The serial dilution analyses of Katahdin Sample No. WU0359-2 was within the laboratory's ICP serial dilution acceptance limit (<10% difference between the original sample result and the result for a 5-fold dilution of the sample, if the result for the dilution is at least ten times the instrument detection limit) for lead.

Wet Chemistry Analysis

The samples of Work Order WU0359 were analyzed in accordance with the specific methods listed on the Report of Analysis.

Analyses for nitrate and sulfate were performed according to "Methods for Chemical Analysis of Water and Wastes", EPA 600/4-79-020, 1979 Revised 1983, U.S. EPA.

All Wet Chemistry results were evaluated to Katahdin Analytical Services' Method Detection Limits (MDL). Measured concentrations that fall between the MDL and Katahdin's Practical Quantitation Limit (PQL) are flagged "J". Measured concentrations that are below the MDL are flagged "U" and reported as "U PQL", where "PQL" is the numerical value of the Practical Quantitation Limit.

All analyses were performed within analytical hold times, and all quality control criteria were met. No deviations were noted by the Wet Chemistry group.

Subcontracted Analysis

Analyses for Methane were performed by a subcontract laboratory. Please refer to the subcontracted section of the data package.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager, Quality Assurance Officer, or the Data Management Supervisor as verified by the following signature.

Maria Crouch
03.09.04
Maria Crouch
Quality Assurance Officer

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT
Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) # Uuo359

PAGE: 1 OF 5

COOLER: 1 OF 5

CLIENT: Tetratech

PROJECT: NAS Key West

COC#
SDG#
DATE / TIME RECEIVED: 2/10/04 0900
DELIVERED BY: Fedex
RECEIVED BY: AMB
LIMS ENTRY BY: AMB
LIMS REVIEW BY / PM: KC

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☑	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☑	☐	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☑	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☑	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☑	☐	☐	TEMP BLANK TEMP (°C)= 5.7	
6. SAMPLES RECEIVED AT 4°C +/- 2? ICE / ICE PACKS PRESENT (Y) or N?	☑	☐	☐	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☐	☐	☑		
8. TRIP BLANK PRESENT IN THIS COOLER	☐	☑	☐		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☑	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☑	☐	☐		
11. SAMPLES PROPERLY PRESERVED(1)?	☑	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☑	N/A		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) COMMERCIAL CLP HAZWRAP (NFESC) ACOE AFCEE OTHER (STATE OF ORIGIN):

LOG - IN NOTES(1): All of the TRPH samples were received at a pH of between 3 and 5. 2 mL of HCl were added to all. pH ≤ 2.

(1) Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

CWE358

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 3832 | PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
CTO 301/318	NAS Key West	Chuck Bryan	803-649-7963x345	Katahdin - Andrea Colby
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
Emily McRee		Emily McRee	786-295-7331	340 County Rd. No.5
		CARRIER/WAYBILL NUMBER		CITY, STATE
		834182781646		Westbrook, ME 04092

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G G P G P

PRESERVATIVE USED: HCl / HCl HCl HNO3 HCl /

DATE YEAR 2004	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	PPL VOHs + BTEX MTBE	PAH + 1-2-methyl-naphthalene	TRPH	EDB	Lead	Methane	Nitrate+Sulfate	COMMENTS
1/26	0950	KWTB-020904	—			QC	G	2	2							
2/7	1025	FC-MW-22-0204	FC-MW-22	—		GW	G	30	9	6	6	6	3			MS/MSD
2/7	1020	FC-MW-06-0204	FC-MW-06			GW	G	10	3	2	2	2	1			
2/7	0000	KW-DUP-03-0204	—			GW	G	10	3	2	2	2	1			
2/7	1220	FC-MW-05-0204	FC-MW-05	—		GW	G	10	3	2	2	2	1			
2/9	0925	RR-MW-06-0204	RR-MW-06	—		GW	G	13	3	2	2	2	1	2	1	
2/9	0830	A824-MW-01-0204	A824-MW-01	—		GW	G	13	3	2	2	2	1	2	1	
2/9	1130	A824-MW-02-0204	A824-MW-02	—		GW	G	13	3	2	2	2	1	2	1	
2/9	1105	A824-MW-03-0204	A824-MW-03	—		GW	G	13	3	2	2	2	1	2	1	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Emily McRee	2/9/04	1600	1. RECEIVED BY: [signature]	2/10/04	0900
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

11000

ORGANICS DATA QUALIFIERS

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
*	Compound recovery outside of quality control limits.
D	Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
B	Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.
N	Presumptive evidence of a compound based on a mass spectral library search.
A	Indicates that a tentatively identified compound is a suspected aldol-condensation product.
P	Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns.

HOLDTIME

SDG 0402235

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
M	UG/L	A824-MW-01-0204	WU0359-007	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
M	UG/L	A824-MW-02-0204	WU0359-008	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
M	UG/L	A824-MW-03-0204	WU0359-009	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
M	UG/L	FC-MW-05-0204	WU0359-005	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	FC-MW-06-0204	WU0359-003	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	FC-MW-22-0204	WU0359-002	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	KW-DUP-03-0204	WU0359-004	NM	02/07/2004	02/20/2004	02/25/2004	13	5	18
M	UG/L	RR-MW-06-0204	WU0359-006	NM	02/09/2004	02/20/2004	02/25/2004	11	5	16
NTA	MG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
NTA	MG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
NTA	MG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
NTA	MG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/10/2004	02/10/2004	1	0	1
SO4	MG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18
SO4	MG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18
SO4	MG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SO4	MG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/27/2004	02/27/2004	18	0	18
OS	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	KW-DUP-03-0204RA	WU0359-4RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	FC-MW-05-0204RA	WU0359-5RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	03/04/2004	6	20	26
OS	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	03/03/2004	6	19	25
OS	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	%	FC-MW-22-0204	WU0359-2DL3	NM	02/07/2004	02/13/2004	03/07/2004	6	23	29
OS	UG/L	FC-MW-22-0204	WU0359-2DL3	NM	02/07/2004	02/13/2004	03/07/2004	6	23	29
OS	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25
OS	UG/L	FC-MW-05-0204RA	WU0359-5RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	03/03/2004	6	19	25
OS	UG/L	KW-DUP-03-0204RA	WU0359-4RA	NM	02/07/2004	02/13/2004	03/05/2004	6	21	27
OS	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	03/05/2004	4	21	25

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OS	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	03/04/2004	6	20	26
EDB	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	%	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/18/2004	02/18/2004	9	0	9
EDB	UG/L	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
EDB	UG/L	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/18/2004	02/18/2004	11	0	11
OV	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	KWTB-020904	WU0359-1	NM	01/26/2004	02/13/2004	02/13/2004	18	0	18
OV	%	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	%	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	UG/L	KWTB-020904	WU0359-1	NM	01/26/2004	02/13/2004	02/13/2004	18	0	18
OV	UG/L	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
OV	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/13/2004	02/13/2004	6	0	6
OV	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/13/2004	02/13/2004	4	0	4
ETHA	UG/ML	RR-MW-06-0204	0402235-01A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
ETHA	UG/ML	A824-MW-02-0204	0402235-03A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHA	UG/ML	A824-MW-03-0204	0402235-04A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHA	UG/ML	A824-MW-01-0204	0402235-02A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	RR-MW-06-0204	0402235-01A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	A824-MW-03-0204	0402235-04A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	A824-MW-02-0204	0402235-03A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
ETHE	UG/ML	A824-MW-01-0204	0402235-02A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	RR-MW-06-0204	0402235-01A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	A824-MW-01-0204	0402235-02A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	A824-MW-02-0204	0402235-03A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
METH	UG/ML	A824-MW-03-0204	0402235-04A	NM	02/09/2004	02/19/2004	02/19/2004	10	0	10
TPH	%	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	%	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	%	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	%	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	%	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	%	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	%	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
TPH	%	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	FC-MW-06-0204	WU0359-3	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	UG/L	KW-DUP-03-0204	WU0359-4	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	UG/L	A824-MW-01-0204	WU0359-7	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	A824-MW-02-0204	WU0359-8	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	A824-MW-03-0204	WU0359-9	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	FC-MW-05-0204	WU0359-5	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20
TPH	UG/L	RR-MW-06-0204	WU0359-6	NM	02/09/2004	02/11/2004	02/27/2004	2	16	18
TPH	UG/L	FC-MW-22-0204	WU0359-2	NM	02/07/2004	02/11/2004	02/27/2004	4	16	20

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG6033-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Lab File ID: M2041 Lab Sample ID: WG6033-2

Date Analyzed: 02/13/04 Time Analyzed: 1055

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-M

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG6033-LCS	WG6033-1	M2039	02/13/04	0945
02	KWTB-020904	WU0359-1	M2043	02/13/04	1206
03	FC-MW-22-0204	WU0359-2	M2044	02/13/04	1237
04	FC-MW-06-0204	WU0359-3	M2045	02/13/04	1307
05	KW-DUP-03-0204	WU0359-4	M2046	02/13/04	1338
06	FC-MW-05-0204	WU0359-5	M2047	02/13/04	1409
07	RR-MW-06-0204	WU0359-6	M2048	02/13/04	1439
08	A824-MW-01-0204	WU0359-7	M2049	02/13/04	1510
09	A824-MW-02-0204	WU0359-8	M2050	02/13/04	1541
10	A824-MW-03-0204	WU0359-9	M2051	02/13/04	1611
11	FC-MW-22-0204MS	WG6033-3	M2056	02/13/04	1844
12	FC-MW-22-0204MSD	WG6033-4	M2057	02/13/04	1914
13					
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30					

COMMENTS:

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CT0297 NAS KEY WEST
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER
% Solids: NA

Lab ID: WG6033-2
Client ID: WG6033-Blank
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
74-87-3	Chloromethane	U	1	1.0	1	1	0.6
75-01-4	Vinyl chloride	U	1	1.0	1	1	0.2
74-83-9	Bromomethane	U	1	1.0	1	1	0.6
75-00-3	Chloroethane	U	1	1.0	1	1	0.2
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.1
75-09-2	Methylene Chloride		2	1.0	2	2	0.4
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.1
1634-04-4	Methyl tert-butyl ether	U	2	1.0	2	2	0.2
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.1
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.09
67-66-3	Chloroform	J	0.3	1.0	1	1	0.1
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.1
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.2
71-43-2	Benzene	U	1	1.0	1	1	0.09
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.2
79-01-6	Trichloroethene	U	1	1.0	1	1	0.08
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.1
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.09
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.1
110-75-8	2-Chloroethylvinylether	U	1	1.0	1	1	0.2
108-88-3	Toluene	U	1	1.0	1	1	0.2
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.1
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.08
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.09
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.2
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.5
75-25-2	Bromoform	U	1	1.0	1	1	0.1
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.2
	m+p-Xylenes	U	2	1.0	2	2	0.3
95-47-6	o-Xylene	U	1	1.0	1	1	0.2
1868-53-7	Dibromofluoromethane		90%				
17060-07-0	1,2-Dichloroethane-D4		94%				
2037-26-5	Toluene-D8		94%				
460-00-4	P-Bromofluorobenzene		98%				

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Lab File ID: MB547 BFB Injection Date: 02/04/04

Instrument ID: GCMS-M BFB Injection Time: 1443

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.5
75	30.0 - 60.0% of mass 95	40.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	86.5
175	5.0 - 9.0% of mass 174	6.1 (7.0)1
176	95.0 - 101.0% of mass 174	83.9 (97.0)1
177	5.0 - 9.0% of mass 176	5.5 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050M04A	M1905	02/04/04	1513
02		VSTD020M04A	M1906	02/04/04	1544
03		VSTD005M04A	M1907	02/04/04	1614
04		VSTD100M04A	M1911	02/04/04	1818
05		VSTD001M04C	M1915	02/04/04	2022
06		VSTD200M04B	M1917	02/04/04	2124
07					
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21					
22					

FORM V VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GCMS-M Calibration Date(s): 02/04/04 02/04/04

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1513 2124

LAB FILE ID: RF1: M1915 RF5: M1907 RF20: M1906
RF50: M1905 RF100: M1911 RF200: M1917

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
Chloromethane	0.488	0.488	0.487	0.441	0.496	0.470	AVRG		0.47808603	4.189	15.000
Vinyl chloride	0.414	0.422	0.430	0.425	0.477	0.462	AVRG		0.43845245	5.729	15.000
Bromomethane	0.279	0.286	0.307	0.303	0.279	0.308	AVRG		0.29392490	4.714	15.000
Chloroethane	0.303	0.264	0.265	0.264	0.228	0.263	AVRG		0.26447348	8.929	15.000
1,1-Dichloroethene	0.372	0.338	0.350	0.356	0.383	0.380	AVRG		0.36316432	4.916	15.000
Methylene Chloride	25046	51277	146310	324800	655680	1235300	LINR	-3.13e-002	1.84385919	0.99946	0.99000
trans-1,2-Dichloroethene	0.471	0.472	0.489	0.476	0.541	0.525	AVRG		0.49556917	6.043	15.000
Methyl tert-butyl ether	1.092	1.083	1.174	1.087	1.273	1.234	AVRG		1.15729401	7.148	15.000
1,1-Dichloroethane	0.727	0.759	0.796	0.747	0.816	0.793	AVRG		0.77300036	4.401	15.000
cis-1,2-Dichloroethene	0.540	0.527	0.540	0.506	0.571	0.571	AVRG		0.54226738	4.681	15.000
Chloroform	1.023	0.826	0.814	0.785	0.849	0.851	AVRG		0.85816824	9.841	15.000
Carbon Tetrachloride	0.279	0.287	0.295	0.300	0.339	0.353	AVRG		0.30905762	9.677	15.000
1,1,1-Trichloroethane	0.616	0.605	0.644	0.632	0.690	0.690	AVRG		0.64618042	5.624	15.000
Benzene	1.170	1.146	1.178	1.124	1.148	1.096	AVRG		1.14362678	2.628	15.000
1,2-Dichloroethane	0.401	0.330	0.355	0.336	0.350	0.361	AVRG		0.35571795	7.087	15.000
Trichloroethene	0.289	0.282	0.373	0.324	0.332	0.305	AVRG		0.31761690	10.455	15.000
1,2-Dichloropropane	0.303	0.279	0.288	0.280	0.290	0.284	AVRG		0.28731366	3.032	15.000
Bromodichloromethane	0.460	0.381	0.401	0.390	0.407	0.404	AVRG		0.40718464	6.807	15.000
cis-1,3-dichloropropene	0.517	0.455	0.491	0.476	0.494	0.471	AVRG		0.48413572	4.472	15.000
2-Chloroethylvinylether	0.153	0.124	0.139	0.118	0.144	0.138	AVRG		0.13609497	9.525	15.000
Toluene	0.813	0.720	0.774	0.726	0.762	0.727	AVRG		0.75370249	4.830	15.000
Tetrachloroethene	9819	29709	111640	285470	640120	1151200	LINR	4.455e-003	2.46998101	0.99759	0.99000
trans-1,3-Dichloropropene	0.520	0.372	0.403	0.377	0.385	0.369	AVRG		0.40415407	14.313	15.000
1,1,2-Trichloroethane	5918	20804	85182	198080	415210	758120	LINR	-1.08e-002	4.89416809	0.99937	0.99000
Dibromochloromethane	9777	31355	131780	318430	680130	1293400	LINR	1.155e-002	2.21974365	0.99961	0.99000
Chlorobenzene	1.349	0.999	1.049	1.068	1.069	0.972	AVRG		1.08423114	12.502	15.000
Ethylbenzene	2.164	1.571	1.664	1.688	1.704	1.530	AVRG		1.72020498	13.269	15.000
Xylenes (total)							AVRG				0.000
Bromoform	6841	19416	77204	175040	408310	758140	LINR	1.743e-002	3.76953432	0.99841	0.99000
1,1,2,2-Tetrachloroethane	9609	26143	98654	204720	503480	918310	LINR	4.169e-002	1.19869870	0.99823	0.99000
m+p-Xylenes	0.815	0.612	0.661	0.675	0.678	0.595	AVRG		0.67269675	11.566	15.000
o-Xylene	0.799	0.581	0.635	0.656	0.667	0.605	AVRG		0.65727852	11.635	15.000
Dibromofluoromethane	0.596	0.550	0.555	0.514	0.561	0.540	AVRG		0.55279834	4.879	15.000
1,2-Dichloroethane-D4	7335	26688	110880	253680	542460	1006100	LINR	1.234e-002	2.22833120	0.99926	0.99000
Toluene-D8	1.268	1.120	1.116	1.054	1.108	1.037	AVRG		1.11701936	7.297	15.000
P-Bromofluorobenzene	12186	46312	154690	366780	753760	1331400	LINR	-3.95e-002	2.78761235	0.99866	0.99000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GCMS-M Calibration Date(s): 02/04/04 02/04/04

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1513 2124

Average %RSD test result.

Calculate Average %RSD: 10.12852097
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Lab File ID: MB556 BFB Injection Date: 02/13/04

Instrument ID: GCMS-M BFB Injection Time: 0833

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.2
75	30.0 - 60.0% of mass 95	38.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	82.3
175	5.0 - 9.0% of mass 174	7.2 (8.7)1
176	95.0 - 101.0% of mass 174	80.6 (97.9)1
177	5.0 - 9.0% of mass 176	5.3 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050M13A	M2038	02/13/04	0901
02	WG6033-LCS	WG6033-1	M2039	02/13/04	0945
03	WG6033-BLANK	WG6033-2	M2041	02/13/04	1055
04	KWTB-020904	WU0359-1	M2043	02/13/04	1206
05	FC-MW-22-0204	WU0359-2	M2044	02/13/04	1237
06	FC-MW-06-0204	WU0359-3	M2045	02/13/04	1307
07	KW-DUP-03-0204	WU0359-4	M2046	02/13/04	1338
08	FC-MW-05-0204	WU0359-5	M2047	02/13/04	1409
09	RR-MW-06-0204	WU0359-6	M2048	02/13/04	1439
10	A824-MW-01-0204	WU0359-7	M2049	02/13/04	1510
11	A824-MW-02-0204	WU0359-8	M2050	02/13/04	1541
12	A824-MW-03-0204	WU0359-9	M2051	02/13/04	1611
13	FC-MW-22-0204MS	WG6033-3	M2056	02/13/04	1844
14	FC-MW-22-0204MSD	WG6033-4	M2057	02/13/04	1914
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GCMS-M Calibration Date: 02/13/04 Time: 0901

Lab File ID: M2038 Init. Calib. Date(s): 02/04/04 02/04/04

Init. Calib. Times: 1513 2124

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Chloromethane	0.4780000	0.4562100	0.4562100	0.1	-4.56		AVRG	
Vinyl chloride	0.4380000	0.4638300	0.4638300	0.01	5.90	20.00	AVRG	
Bromomethane	0.2940000	0.3088700	0.3088700	0.01	5.06		AVRG	
Chloroethane	0.2640000	0.2948300	0.2948300	0.01	11.68		AVRG	
1,1-Dichloroethene	0.3630000	0.4053800	0.4053800	0.1	11.68	20.00	AVRG	
Methylene Chloride	51.776000	50.000000	0.5786000	0.01	3.55		LINR	
trans-1,2-Dichloroethene	0.4960000	0.5557900	0.5557900	0.01	12.05		AVRG	
Methyl tert-butyl ether	1.1570000	1.1442000	1.1442000	0.01	-1.11		AVRG	
1,1-Dichloroethane	0.7730000	0.8564500	0.8564500	0.1	10.80		AVRG	
cis-1,2-Dichloroethene	0.5420000	0.6105300	0.6105300	0.01	12.64		AVRG	
Chloroform	0.8580000	0.8729100	0.8729100	0.01	1.74	20.00	AVRG	
Carbon Tetrachloride	0.3090000	0.3352100	0.3352100	0.01	8.48		AVRG	
1,1,1-Trichloroethane	0.6460000	0.6855900	0.6855900	0.01	6.13		AVRG	
Benzene	1.1440000	1.2572000	1.2572000	0.01	9.90		AVRG	
1,2-Dichloroethane	0.3560000	0.3656100	0.3656100	0.01	2.70		AVRG	
Trichloroethene	0.3180000	0.3652100	0.3652100	0.01	14.85		AVRG	
1,2-Dichloropropane	0.2870000	0.3005200	0.3005200	0.01	4.71	20.00	AVRG	
Bromodichloromethane	0.4070000	0.4251400	0.4251400	0.01	4.46		AVRG	
cis-1,3-dichloropropene	0.4840000	0.5239000	0.5239000	0.01	8.24		AVRG	
2-Chloroethylvinylether	0.1360000	0.1363300	0.1363300	0.01	0.24		AVRG	
Toluene	0.7540000	0.8258800	0.8258800	0.01	9.53	20.00	AVRG	
Tetrachloroethene	44.230000	50.000000	0.3563400	0.01	-11.54		LINR	
trans-1,3-Dichloropropene	0.4040000	0.3992000	0.3992000	0.01	-1.19		AVRG	
1,1,2-Trichloroethane	51.367000	50.000000	0.2121200	0.01	2.73		LINR	
Dibromochloromethane	48.592000	50.000000	0.4326100	0.01	-2.82		LINR	
Chlorobenzene	1.0840000	1.1214000	1.1214000	0.3	3.45		AVRG	
Ethylbenzene	1.7200000	1.7610000	1.7610000	0.01	2.38	20.00	AVRG	
Xylenes (total)	0.0000000	0.6979000	0.6979000	0.01	0.00		AVRG	<-
Bromoform	46.248000	50.000000	0.2407500	0.1	-7.50		LINR	

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GCMS-M Calibration Date: 02/13/04 Time: 0901

Lab File ID: M2038 Init. Calib. Date(s): 02/04/04 02/04/04

Init. Calib. Times: 1513 2124

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,1,2,2-Tetrachloroethane	44.514000	50.000000	0.7079200	0.3	-10.97		LINR
m+p-Xylenes	0.6730000	0.7061700	0.7061700	0.01	4.93		AVRG
o-Xylene	0.6570000	0.6813600	0.6813600	0.01	3.71		AVRG
Dibromofluoromethane	0.5530000	0.5101800	0.5101800	0.01	-7.74		AVRG
1,2-Dichloroethane-D4	44.468000	50.000000	0.3935700	0.01	-11.06		LINR
Toluene-D8	1.1170000	1.0754000	1.0754000	0.01	-3.72		AVRG
P-Bromofluorobenzene	50.472000	50.000000	0.3763000	0.01	0.94		LINR

FORM VII PEST

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER

Lab ID: WG6033-3 & WG6033-4
Client ID: FC-MW-22-0204MS & FC-MW-22-0204MSD
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Chloromethane	50	50	0.00	54	58	109	116	6	20	60-140
Vinyl chloride	50	50	0.00	65	66	130	132	2	20	60-140
Bromomethane	50	50	0.00	33	32	65	65	0.6	20	60-140
Chloroethane	50	50	0.00	62	64	125	129	3	20	60-140
1,1-Dichloroethene	50	50	0.00	63	65	127	130	3	20	44-167
Methylene Chloride	50	50	0.00	50	51	101	102	0.8	20	60-140
trans-1,2-Dichloroethene	50	50	0.00	59	59	117	118	1	20	60-140
Methyl tert-butyl ether	100	100	0.00	91	98	91	98	7	20	60-140
1,1-Dichloroethane	50	50	0.00	56	58	113	115	2	20	60-140
cis-1,2-Dichloroethene	50	50	0.00	55	55	111	110	1	20	60-140
Chloroform	50	50	0.00	53	53	106	105	0.2	20	60-140
Carbon Tetrachloride	50	50	0.00	68	66	135	133	2	20	60-140
1,1,1-Trichloroethane	50	50	0.00	60	59	120	119	1	20	60-140
Benzene	50	50	0.00	57	58	115	116	1	20	64-140
1,2-Dichloroethane	50	50	0.00	53	53	106	106	0.2	20	60-140
Trichloroethene	50	50	0.00	55	55	111	110	0.7	20	62-134
1,2-Dichloropropane	50	50	0.00	57	57	114	114	0.2	20	60-140
Bromodichloromethane	50	50	0.00	50	50	100	99	1	20	60-140
cis-1,3-dichloropropene	50	50	0.00	52	52	104	105	0.4	20	60-140
2-Chloroethylvinylether	50	50	0.00	0.0	0.0	* 0	* 0		20	60-140
Toluene	50	50	0.71	58	58	114	115	1	20	65-142
Tetrachloroethene	50	50	0.00	48	47	96	94	2	20	60-140
trans-1,3-Dichloropropene	50	50	0.00	49	50	99	100	0.8	20	60-140
1,1,2-Trichloroethane	50	50	0.00	129	110	* 258	* 220	16	20	60-140
Dibromochloromethane	50	50	0.00	49	50	98	99	1	20	60-140
Chlorobenzene	50	50	0.00	56	54	112	107	4	20	68-140
Ethylbenzene	50	50	38	96	91	116	106	5	20	60-140
Xylenes (total)	150	150	6.7	173	175	111	112	1	20	60-140
Bromoform	50	50	0.00	44	47	88	94	6	20	60-140
1,1,2,2-Tetrachloroethane	50	50	0.00	42	45	85	89	6	20	60-140
m+p-Xylenes	100	100	6.7	118	119	111	112	0.8	20	60-140
o-Xylene	50	50	0.00	56	56	111	112	0.7	20	60-140

FORM III VOA-1

M2056.D & M2057.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO297 NAS KEY WEST
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER

Lab ID: WG6033-1
Client ID: WG6033-LCS
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS	
Dichlorodifluoromethane	50	NA	61	122	4-217	
Chloromethane	50	NA	55	110	40-163	
Vinyl chloride	50	NA	52	105	55-151	
Bromomethane	50	NA	52	103	24-217	
Chloroethane	50	NA	54	108	69-134	
Trichlorofluoromethane	50	NA	47	93	71-147	
Diethyl Ether	50	NA	48	96	67-135	
Tertiary-butyl alcohol	250	NA	239	96	58-146	
1,1-Dichloroethene	50	NA	52	104	78-136	
Carbon Disulfide	50	NA	55	110	70-136	
Freon-113	50	NA	47	95	60-140	
Iodomethane	50	NA	55	110	60-140	
Acrolein	250	NA	291	116	0-199	NTC
Methylene Chloride	50	NA	51	103	52-115	
Acetone	50	NA	96	* 192	0-158	
Isobutyl Alcohol	1000	NA	947	95	60-140	
trans-1,2-Dichloroethene	50	NA	53	105	84-131	
Allyl Chloride	50	NA	49	98	60-140	
Methyl tert-butyl ether	100	NA	95	95	62-130	
Acetonitrile	500	NA	463	93	53-141	
Di-isopropyl ether	50	NA	50	99	82-130	
Chloroprene	50	NA	51	101	60-140	
Methacrylonitrile	500	NA	400	80	60-140	
Propionitrile	500	NA	422	84	60-140	
1,1-Dichloroethane	50	NA	53	106	81-134	
Acrylonitrile	250	NA	204	82	29-172	
Ethyl tertiary-butyl ether	50	NA	48	95	85-124	
Vinyl Acetate	50	NA	39	79	68-174	
cis-1,2-Dichloroethene	50	NA	49	98	84-123	
1,2-Dichloroethylene (total)	100	NA	102	102	84-131	
Methyl Methacrylate	50	NA	38	77	60-140	
2,2-Dichloropropane	50	NA	55	110	69-150	
Bromochloromethane	50	NA	52	103	77-146	
Chloroform	50	NA	49	98	80-130	
Carbon Tetrachloride	50	NA	46	91	74-137	
Tetrahydrofuran	50	NA	46	92	32-140	
1,1,1-Trichloroethane	50	NA	49	99	76-138	
1,1-Dichloropropene	50	NA	49	97	82-120	
2-Butanone	50	NA	48	95	49-154	
Benzene	50	NA	49	99	88-120	NTC
Cyclohexane	50	NA	0.40	* 1	60-140	
Ethyl Methacrylate	50	NA	44	88	60-140	
Tertiary-amyl methyl ether	50	NA	46	93	85-125	
1,2-Dichloroethane	50	NA	46	93	78-138	
Trichloroethene	50	NA	51	102	80-125	

FORM III VOA-1

M2039.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO297 NAS KEY WEST
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER

Lab ID: WG6033-1
Client ID: WG6033-LCS
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dibromomethane	50	NA	48		95	88-130
1,2-Dichloropropane	50	NA	49		98	80-122
Bromodichloromethane	50	NA	44		88	83-133
cis-1,3-dichloropropene	50	NA	48		96	81-138
1,4-Dioxane	1000	NA	0.00	*	0	60-140
2-Chloroethylvinylether	50	NA	8.3	*	17	50-211
Toluene	50	NA	49		98	88-121
4-methyl-2-pentanone	50	NA	39		78	72-140
Tetrachloroethene	50	NA	41		83	77-129
trans-1,3-Dichloropropene	50	NA	46		92	81-149
1,1,2-Trichloroethane	50	NA	46		92	82-126
Dibromochloromethane	50	NA	46		92	80-133
1,3-Dichloropropane	50	NA	45		90	86-125 NA
1,2-Dibromoethane	50	NA	42	*	84	88-127
2-Hexanone	50	NA	52		103	45-146
Chlorobenzene	50	NA	49		98	84-123
Ethylbenzene	50	NA	47		94	84-134
1,1,1,2-Tetrachloroethane	50	NA	49		98	83-130
Xylenes (total)	150	NA	149		99	88-123
m+p-Xylenes	100	NA	100		100	88-122
o-Xylene	50	NA	49		98	90-123
Styrene	50	NA	47		94	87-131
Bromoform	50	NA	44		87	77-138
Isopropylbenzene	50	NA	48		96	88-125
cis-1,4-Dichloro-2-Butene	50	NA	40		80	60-140
trans-1,4-Dichloro-2-Butene	50	NA	39		77	60-140
Bromobenzene	50	NA	50		99	84-133
N-Propylbenzene	50	NA	52		104	88-124
1,1,2,2-Tetrachloroethane	50	NA	42		84	81-131
1,3,5-Trimethylbenzene	50	NA	51		101	89-124
2-Chlorotoluene	50	NA	50		99	84-128
1,2,3-Trichloropropane	50	NA	40		81	76-132
4-Chlorotoluene	50	NA	50		101	86-132
tert-Butylbenzene	50	NA	48		96	82-131
Pentachloroethane	50	NA	54		109	60-140
1,2,4-Trimethylbenzene	50	NA	48		97	88-121
P-Isopropyltoluene	50	NA	52		104	86-122
1,3-Dichlorobenzene	50	NA	50		100	86-124
1,4-Dichlorobenzene	50	NA	54		107	80-127
N-Butylbenzene	50	NA	51		103	81-133
sec-Butylbenzene	50	NA	48		97	85-122
1,2-Dichlorobenzene	50	NA	48		96	86-126
1,2-Dibromo-3-Chloropropane	50	NA	44		88	61-136
1,3,5-Trichlorobenzene	50	NA	54		108	67-128
Hexachlorobutadiene	50	NA	48		96	52-129

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO297 NAS KEY WEST
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 02/13/04
Report Date: 03/02/2004
Matrix: WATER

Lab ID: WG6033-1
Client ID: WG6033-LCS
SDG: WU0359
Extracted by:
Extraction Method: SW846 5030
Analyst: KM
Analysis Method: SW846 8260B
Lab Prep Batch: WG6033
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	48	96	53-157
1,2,3-Trimethylbenzene	50	NA	57	114	60-140
Naphthalene	50	NA	35	70	45-151
1,2,3-Trichlorobenzene	50	NA	44	89	30-164
Methyl Acetate	50	NA	50	99	60-140
Methylcyclohexane	50	NA	48	95	60-140

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

GC Column: SPB 608 ID: 0.53 (mm) Init. Calib. Date(s): 02/17/04 02/17/04

Instrument ID: GC03

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 12.03

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01	ICAL	0.02 PPB	02/17/04	1553	12.03	
02	ICAL	0.05 PPB	02/17/04	1611	12.03	
03	ICAL	0.1 PPB	02/17/04	1630	12.03	
04	ICAL	0.25 PPB	02/17/04	1648	12.03	
05	ICAL	0.5PPB	02/17/04	1706	12.03	
06	ICAL	1.0 PPB	02/17/04	1724	12.03	
07	ICAL	2.5 PPB	02/17/04	1743	12.01	
08	CV	CV 0.5 PPB	02/18/04	1307	12.04	
09	WG6101-BLANK	WG6101-1	02/18/04	1328	12.03	
10	WG6101-LCS	WG6101-2	02/18/04	1346	12.03	
11	WG6101-LCSD	WG6101-3	02/18/04	1404	12.01	
12	FC-MW-22-020	WU0359-2	02/18/04	1533	12.03	
13	FC-MW-06-020	WU0359-3	02/18/04	1551	12.01	
14	KW-DUP-03-02	WU0359-4	02/18/04	1610	12.01	
15	FC-MW-05-020	WU0359-5	02/18/04	1628	12.01	
16	RR-MW-06-020	WU0359-6	02/18/04	1646	12.01	
17	A824-MW-01-0	WU0359-7	02/18/04	1704	12.01	
18	A824-MW-02-0	WU0359-8	02/18/04	1723	12.01	
19	A824-MW-03-0	WU0359-9	02/18/04	1741	12.01	
20	FC-MW-22-020	WG6101-4	02/18/04	1759	12.00	

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.24 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

GC Column: SPB 608 ID: 0.53 (mm) Init. Calib. Date(s): 02/17/04 02/17/04

Instrument ID: GC03

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 12.03

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01	FC-MW-22-020	WG6101-5	02/18/04	1817	12.01	
02	CV	CV 0.5 PPB	02/18/04	1836	12.01	
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.24 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

GC Column: RTX-CLP II ID: 0.53 (mm) Init. Calib. Date(s): 02/17/04 02/17/04

Instrument ID: GC03

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 11.33

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01	ICAL	0.02 PPB	02/17/04	1553	11.33	
02	ICAL	0.05 PPB	02/17/04	1611	11.33	
03	ICAL	0.1 PPB	02/17/04	1630	11.33	
04	ICAL	0.25 PPB	02/17/04	1648	11.33	
05	ICAL	0.5PPB	02/17/04	1706	11.33	
06	ICAL	1.0 PPB	02/17/04	1724	11.33	
07	ICAL	2.5 PPB	02/17/04	1743	11.33	
08	CV	CV 0.5 PPB	02/18/04	1307	11.35	
09	WG6101-BLANK	WG6101-1	02/18/04	1328	11.33	
10	WG6101-LCS	WG6101-2	02/18/04	1346	11.33	
11	WG6101-LCSD	WG6101-3	02/18/04	1404	11.33	
12	FC-MW-22-020	WU0359-2	02/18/04	1533	11.33	
13	FC-MW-06-020	WU0359-3	02/18/04	1551	11.33	
14	KW-DUP-03-02	WU0359-4	02/18/04	1610	11.32	
15	FC-MW-05-020	WU0359-5	02/18/04	1628	11.32	
16	RR-MW-06-020	WU0359-6	02/18/04	1646	11.32	
17	A824-MW-01-0	WU0359-7	02/18/04	1704	11.32	
18	A824-MW-02-0	WU0359-8	02/18/04	1723	11.32	
19	A824-MW-03-0	WU0359-9	02/18/04	1741	11.32	
20	FC-MW-22-020	WG6101-4	02/18/04	1759	11.32	

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

GC Column: RTX-CLP II ID: 0.53 (mm) Init. Calib. Date(s): 02/17/04 02/17/04

Instrument ID: GC03

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 11.33

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01	FC-MW-22-020	WG6101-5	02/18/04	1817	11.32	
02	CV	CV 0.5 PPB	02/18/04	1836	11.32	
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.10 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG6101-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Lab File ID: 3UB1203 Lab Sample ID: WG6101-1

Instrument ID: GC03 Matrix: (soil/water) WATER

Level: (low/med) LOW Date Extracted: 02/18/04

Date Analyzed (1): 02/18/04 Date Analyzed (2): 02/18/04

Time Analyzed (1): 1328 Time Analyzed (2): 1328

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	TIME ANALYZED 2	DATE
01	WG6101-LCS	WG6101-2	3UB1204	02/18/04	1346	02/18/04
02	WG6101-LCSD	WG6101-3	3UB1205	02/18/04	1404	02/18/04
03	FC-MW-22-0204	WU0359-2	3UB1209	02/18/04	1533	02/18/04
04	FC-MW-06-0204	WU0359-3	3UB1210	02/18/04	1551	02/18/04
05	KW-DUP-03-0204	WU0359-4	3UB1211	02/18/04	1610	02/18/04
06	FC-MW-05-0204	WU0359-5	3UB1212	02/18/04	1628	02/18/04
07	RR-MW-06-0204	WU0359-6	3UB1213	02/18/04	1646	02/18/04
08	A824-MW-01-0204	WU0359-7	3UB1214	02/18/04	1704	02/18/04
09	A824-MW-02-0204	WU0359-8	3UB1215	02/18/04	1723	02/18/04
10	A824-MW-03-0204	WU0359-9	3UB1216	02/18/04	1741	02/18/04
11	FC-MW-22-0204MS	WG6101-4	3UB1217	02/18/04	1759	02/18/04
12	FC-MW-22-0204MSD	WG6101-5	3UB1218	02/18/04	1817	02/18/04
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

COMMENTS:

FORM IV SV

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO297 NAS KEY WEST
PO No:
Sample Date:
Received Date:
Extraction Date: 02/18/04
Analysis Date: 02/18/04
Report Date: 03/05/2004
Matrix: WATER
% Solids: NA

Lab ID: WG6101-1
Client ID: WG6101-Blank
SDG: WU0359
Extracted by: SAW
Extraction Method: 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG6101
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.020	1.0	0.020	0.020	0.020
877-09-8	Tetrachloro-M-Xylene		*163%				

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date(s): 02/17/04 02/17/04

Column: SPB 608 ID: 0.53 (mm) Calibration Time(s): 1553 1950

LAB FILE ID: RF0.02: 3UB1170 RF0.05: 3UB1171 RF0.1: 3UB1172
RF0.25: 3UB1173 RF0.5: 3UB1174 RF1: 3UB1175

COMPOUND	RF0.02	RF0.05	RF0.1	RF0.25	RF0.5	RF1	CURVE	COEFFICENTS A0	A1	%RSD A2	MAX %RSD OR R^2	OR R^2
1,2-Dibromoethane	1347	3756	6141	14782	26925	42656	2ORDR	-1.53e-002	1.783e-005	1.122e-010	0.99890	0.99000
Tetrachloro-M-Xylene	2620	15850	22271	38420	47616	80078	2ORDR	6.211e-002	2.737e-005	1.211e-011	0.99528	0.99000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date(s): 02/17/04 02/17/04

Column: SPB 608 ID: 0.53 (mm) Calibration Time(s): 1553 1950

RF2.5: 3UB1176

COMPOUND	RF2.5	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,2-Dibromoethane	90229	2ORDR	-1.53e-002	1.783e-005	1.122e-010	0.99890	0.99000
Tetrachloro-M-Xylene	168590	2ORDR	6.211e-002	2.737e-005	1.211e-011	0.99528	0.99000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date(s): 02/17/04 02/17/04

Column: RTX-CLP II ID: 0.53 (mm) Calibration Time(s): 1553 1743

LAB FILE ID: RF0.02: 3UB2170 RF0.05: 3UB2171 RF0.1: 3UB2172
RF0.25: 3UB2173 RF0.5: 3UB2174 RF1: 3UB2175

COMPOUND	RF0.02	RF0.05	RF0.1	RF0.25	RF0.5	RF1	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,2-Dibromoethane	271	486	887	1871	3378	5392	2ORDR	-3.49e-002	1.666e-004	2.454e-009	0.99801	0.99000
Tetrachloro-M-Xylene	1018	2217	3312	5641	7338	11693	2ORDR	-7.45e-003	2.122e-004	-1.41e-009	0.99321	0.99000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date(s): 02/17/04 02/17/04

Column: RTX-CLP II ID: 0.53 (mm) Calibration Time(s): 1553 1743

RF2.5: 3UB2176

COMPOUND	RF2.5	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,2-Dibromoethane	12831	2ORDR	-3.49e-002	1.666e-004	2.454e-009	0.99801	0.99000
Tetrachloro-M-Xylene	29470	2ORDR	-7.45e-003	2.122e-004	-1.41e-009	0.99321	0.99000

FORM VI VOA

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date: 02/18/04 Time: 1307

Lab File ID: 3UB1202 Init. Calib. Date(s): 02/17/04 02/17/04

Init. Calib. Times: 1553 1950

GC Column: SPB 608 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.5000 or AMOUNT	CCAL RRF0.5000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1,2-Dibromoethane	0.5100800	0.5000000	58188.000	0.01	2.02	30.00	2RDR	
Tetrachloro-M-Xylene	1.9031000	1.2500000	56146.000	0.01	52.25	30.00	2RDR	<-

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date: 02/18/04 Time: 1307

Lab File ID: 3UB2202 Init. Calib. Date(s): 02/17/04 02/17/04

Init. Calib. Times: 1553 1743

GC Column: RTX-CLP II ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.5000 or AMOUNT	CCAL RRF0.5000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1,2-Dibromoethane	0.5372400	0.5000000	6552.0000	0.01	7.45	30.00	2RDR	
Tetrachloro-M-Xylene	1.6358000	1.2500000	6553.6000	0.01	30.86	30.00	2RDR	<-

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date: 02/18/04 Time: 1836

Lab File ID: 3UB1219 Init. Calib. Date(s): 02/17/04 02/17/04

Init. Calib. Times: 1553 1950

GC Column: SPB 608 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.5000 or AMOUNT	CCAL RRF0.5000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1,2-Dibromoethane	0.5983800	0.5000000	58188.000	0.01	19.68	30.00	2RDR	
Tetrachloro-M-Xylene	2.0428000	1.2500000	56146.000	0.01	63.42	30.00	2RDR	<-

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC03 Calibration Date: 02/18/04 Time: 1836

Lab File ID: 3UB2219 Init. Calib. Date(s): 02/17/04 02/17/04

Init. Calib. Times: 1553 1743

GC Column: RTX-CLP II ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.5000 or AMOUNT	CCAL RRF0.5000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,2-Dibromoethane	0.5716700	0.5000000	6928.0000	0.01	14.33	30.00	2RDR
Tetrachloro-M-Xylene	1.5522000	1.2500000	6200.8000	0.01	24.18	30.00	2RDR

FORM VII PEST

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEY WEST SDG No.: WU0359

GC Column(1): SPB 608 ID: 0.53 (mm) GC Column(2): RTX-CLP IIID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 TCX#	1 S1 TCX#	2 S2 #	1 S2 #	2 S3 #	1 S3 #	2 S4 #	1 S4 OUT
01	WG6101-BLANK	WG6101-1	163*	141*						2
02	WG6101-LCS	WG6101-2	110	100						0
03	WG6101-LCSD	WG6101-3	136*	117						1
04	FC-MW-22-0204	WU0359-2	135*	114						1
05	FC-MW-06-0204	WU0359-3	114	101						0
06	KW-DUP-03-0204	WU0359-4	133*	116						1
07	FC-MW-05-0204	WU0359-5	91	75						0
08	RR-MW-06-0204	WU0359-6	137*	125						1
09	A824-MW-01-0204	WU0359-7	116	101						0
10	A824-MW-02-0204	WU0359-8	143*	127						1
11	A824-MW-03-0204	WU0359-9	155*	140*						2
12	FC-MW-22-0204MS	WG6101-4	144*	128						1
13	FC-MW-22-0204MSD	WG6101-5	134*	121						1
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										

QC LIMITS
S1 (TCX) = Tetrachloro-M-Xylene (57-128)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II SV-1

Katahdin Analytical Services, Inc.
Instrument: GC03
Amount Injected 2 µl

GC Laboratory Instrument Runlog

Method: 8151 / 6640B / 504
(circle)

Reviewed by/ Date:

Date	Init.	Result File	Sample ID	MI	Y/N	Method	Column	Comments
2-14-04	JLP	34B1/2165	0.02 Test	N	N	504 A/8010A	134/208	
		166						
		167						
2-17-04	JLP	168	Prime	N	N	504A/8011A		
		169		N	N			
		170	0.02 PPB ICAL	Y	Y			
		171	0.05	Y				
		172	0.10	Y				
		173	0.25	Y				
		174	0.50	Y				
		175	1.0	Y				
		176	2.5	Y				
		177	W6088-1	Y	Y			
		178	-1RE	N				
		179	-2	N				
		180	-3	N				
		181	DBCM	Y	Y			
		182	QC 0.25 µg/mL	Y				
		183	MDL	Y				
		184	W40318-2RE	Y	Y			
		185	-3RE	Y				
		186	-4RE	N				
		187	-5RE	Y				
		188	-6RE	N				
		189	W40334-2RE		Y			
		190	W40346-1RE		Y			
		191	-3RE	Y				
		192	-5RE	Y				
		193	-7RE	N				
		194	-8RE					

Katahdin Analytical Services, Inc.
Instrument: GC03
Amount Injected 2ul

GC Laboratory Instrument Runlog

Method: 8151 / 6640B / 504
(circle)

Reviewed by/ Date:

Date	Init.	Result File	Sample ID	MI	Y/N	Method	Column	Comments
2-17-04	JLP	34B1/2195	WU0334-9RE	N	Y	504A/8011A	134/208	
↓	↓	196	↓ -10RE	↓	↓	↓	↓	
2-18-04	↓	↓ 197	CV 0.5 PPB	↓	Y	↓	↓	
2-18-04	JLP	198	Prime	N	N	↓	↓	
↓	↓	199	↓	N	N	↓	↓	
↓	↓	200	CV 0.5 PPB	Y	Y	↓	↓	
↓	↓	201	↓	N	Y	↓	↓	
↓	↓	202	↓	N	Y	↓	↓	BSST
↓	↓	203	WG6101-1	~~M~~	Y	↓	↓	A+BSST
↓	↓	204	↓ -2	Y	Y	↓	↓	DBCPT on A
↓	↓	205	↓ -3	Y	Y	↓	↓	DBCPT on A
↓	↓	206	WU0156-13DL	N	Y	↓	↓	1:2
↓	↓	207	↓ -13	Y	Y	↓	↓	
↓	↓	208	WG6101-1RA	N	Y	↓	↓	A+BSST
↓	↓	209	WU0359-2	Y	Y	↓	↓	
↓	↓	210	↓ -3	N	↓	↓	↓	
↓	↓	211	↓ -4	N	↓	↓	↓	
↓	↓	212	↓ -5	Y	↓	↓	↓	ASST
↓	↓	213	↓ -6	Y	↓	↓	↓	
↓	↓	214	↓ -7	N	↓	↓	↓	
↓	↓	215	↓ -8	N	↓	↓	↓	
↓	↓	216	↓ -9	N	↓	↓	↓	BSST
↓	↓	217	WG6101-4	Y	Y	↓	↓	WU0359-2MS
↓	↓	218	↓ -5	YDM	Y	↓	↓	↓ -2MSD
↓	↓	219	CV 0.5 PPB	Y	Y	↓	↓	
2-19-04	JLP	220	Prime	N	N	↓	↓	
↓	↓	221	↓	N	N	↓	↓	
↓	↓	222	CV 0.5 PPB	Y	Y	↓	↓	
↓	↓	223	WG6134-1	N	Y	↓	↓	A+BSST
↓	↓	224	↓ -2	Y	Y	↓	↓	A EDBT A+B SST

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG6030-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Lab File ID: X4569 Lab Sample ID: WG6030-1

Instrument ID: GCMS-X Date Extracted: 02/13/04

Matrix: (soil/water) WATER Date Analyzed: 03/02/04

Level:(low/med) LOW Time Analyzed: 2331

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG6030-LCS	WG6030-2	X4570	03/03/04	0016
02	FC-MW-22-0204MSD	WG6030-4	X4572	03/03/04	0143
03	FC-MW-22-0204	WU0359-2	X4573	03/03/04	0228
04	FC-MW-22-0204MS	WG6030-3RA	X4578	03/03/04	1245
05	FC-MW-06-0204	WU0359-3	X4614	03/04/04	2146
06	RR-MW-06-0204	WU0359-6	X4617	03/05/04	0000
07	A824-MW-01-0204	WU0359-7	X4618	03/05/04	0045
08	A824-MW-02-0204	WU0359-8	X4619	03/05/04	0129
09	A824-MW-03-0204	WU0359-9	X4620	03/05/04	0214
10	KW-DUP-03-0204	WU0359-4RA	X4635	03/05/04	1920
11	FC-MW-05-0204	WU0359-5RA	X4636	03/05/04	2005
12	FC-MW-22-0204	WU0359-2DL3	X4654	03/07/04	1056
13					
14					
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COMMENTS:

FORM IV SV

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO297 NAS KEYWEST
PO No:
Sample Date:
Received Date:
Extraction Date: 02/13/04
Analysis Date: 03/02/04
Report Date: 03/08/2004
Matrix: WATER
% Solids: NA

Lab ID: WG6030-1
Client ID: WG6030-Blank
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.050
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.080
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.050
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.080
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.060
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.080
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.080
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.11
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.090
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.12
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.070
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.090
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.080
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.090
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.10
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.15
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.080
90-12-0	1-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.080
7297-45-2	2-Methylnaphthalene-d10		69%				
81103-79-9	Fluorene-d10		78%				
1718-52-1	Pyrene-d10		118%				

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Lab File ID: XD198 DFTPP Injection Date: 03/02/04

Instrument ID: GCMS-X DFTPP Injection Time: 0943

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	50.0
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	40.8
197	Less than 1.0% of mass 198	0.5
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.2
275	10.0 - 30.0% of mass 198	21.7
365	1.0 - 100.0% of mass 198	2.3
441	0.0 - 100.0% of mass 443	8.4 (70.3)2
442	40.0 - 100.0% of mass 198	52.6
443	17.0 - 23.0% of mass 442	12.0 (22.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00X0302	X4553	03/02/04	1004
02		SSTD3.00X0302	X4554	03/02/04	1048
03		SSTD2.00X0302	X4555	03/02/04	1132
04		SSTD0.50X0302	X4556	03/02/04	1217
05		SSTD0.20X0302	X4557	03/02/04	1302
06		SSTD0.05X0302	X4558	03/02/04	1345
07					
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FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO297 NAS KEYWEST SDG No.: WU0359

Instrument ID: GCMS-X Calibration Date(s): 03/02/04 03/02/04

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 1004 1345

LAB FILE ID: RF0.05: X4558 RF0.2: X4557 RF0.5: X4556
RF1: X4553 RF2: X4555 RF3: X4554

COMPOUND	RF0.05	RF0.2	RF0.5	RF1	RF2	RF3	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Naphthalene	1.036	0.901	0.946	1.032	0.864	0.879	AVRG		0.94304046		8.029	15.000
2-Methylnaphthalene	0.506	0.445	0.491	0.564	0.507	0.529	AVRG		0.50699575		7.805	15.000
Acenaphthylene	1.048	1.224	1.248	1.388	1.303	1.441	AVRG		1.27520214		10.868	15.000
Acenaphthene	1.112	1.266	1.102	1.135	0.992	1.050	AVRG		1.10938455		8.310	30.000
Fluorene	0.881	0.961	1.030	1.135	1.015	1.083	AVRG		1.01747461		8.813	15.000
Phenanthrene	0.778	0.828	0.801	0.902	0.778	0.848	AVRG		0.82258995		5.805	15.000
Anthracene	0.572	0.732	0.817	0.808	0.747	0.839	AVRG		0.75239673		13.000	15.000
Fluoranthene	0.518	0.497	0.533	0.644	0.575	0.702	AVRG		0.57817311		13.833	15.000
Pyrene	1836	6093	20103	48767	86013	136190	LINR	-6.85e-002	0.59925380		0.99104	0.99000
Benzo(a)anthracene	0.566	0.594	0.603	0.676	0.560	0.603	AVRG		0.60054255		6.922	15.000
Chrysene	1.336	1.310	1.390	1.287	1.121	1.206	AVRG		1.27499621		7.576	15.000
Benzo(b)fluoranthene	446	1360	6023	12410	19927	36944	2ORDR	-1.58e-002	0.96534316	-2.63e-002	0.99016	0.99000
Benzo(k)fluoranthene	1.969	1.652	1.786	2.326	2.308	2.374	AVRG		2.06927745		14.973	15.000
Benzo(a)pyrene	1.073	0.798	1.086	1.141	1.170	1.219	AVRG		1.08101917		13.760	30.000
Indeno(1,2,3-cd)pyrene	0.783	0.702	0.720	0.688	0.673	0.692	AVRG		0.70975495		5.505	15.000
Dibenzo(a,h)anthracene	0.555	0.553	0.468	0.462	0.501	0.473	AVRG		0.50203161		8.485	15.000
Benzo(g,h,i)perylene	0.808	0.869	0.738	0.726	0.770	0.701	AVRG		0.76883360		7.988	15.000
1-Methylnaphthalene	0.437	0.489	0.492	0.566	0.496	0.523	AVRG		0.50078228		8.527	15.000
2-Methylnaphthalene-d10	0.226	0.304	0.394	0.378	0.360	0.371	AVRG		0.33876273		18.655	15.000
Fluorene-d10	0.927	1.010	1.168	1.234	1.092	1.164	AVRG		1.09922892		10.346	15.000
Pyrene-d10	1.176	1.287	1.262	1.472	1.323	1.287	AVRG		1.30093970		7.472	15.000

Average %RSD test result.

Calculate Average %RSD: 10.41187382
Maximum Average %RSD: 30.00000000

Note: Passes Average %RSD Test.

FORM VI SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Lab File ID: XD199 DFTPP Injection Date: 03/02/04

Instrument ID: GCMS-X DFTPP Injection Time: 1542

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	59.5
70	Less than 2.0% of mass 69	0.9 (1.5)1
127	40.0 - 60.0% of mass 198	42.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	23.7
365	1.0 - 100.0% of mass 198	2.5
441	0.0 - 100.0% of mass 443	11.2 (85.9)2
442	40.0 - 100.0% of mass 198	63.1
443	17.0 - 23.0% of mass 442	13.1 (20.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00X0302	X4559	03/02/04	1604
02	WG6030-BLANK	WG6030-1	X4569	03/02/04	2331
03	WG6030-LCS	WG6030-2	X4570	03/03/04	0016
04	FC-MW-22-0204MSD	WG6030-4	X4572	03/03/04	0143
05	FC-MW-22-0204	WU0359-2	X4573	03/03/04	0228
06					
07					
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FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Instrument ID: GCMS-X Calibration Date: 03/02/04 Time: 1604

Lab File ID: X4559 Init. Calib. Date(s): 03/02/04 03/02/04

Init. Calib. Times: 1004 1302

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.9240000	0.9959000	0.9959000	0.01	7.78	100.00	AVRG
2-Methylnaphthalene	0.5070000	0.5629700	0.5629700	0.01	11.04	100.00	AVRG
Acenaphthylene	1.3210000	1.3281000	1.3281000	0.01	0.54	100.00	AVRG
Acenaphthene	1.1090000	1.0922000	1.0922000	0.01	-1.51	20.00	AVRG
Fluorene	1.0450000	1.1766000	1.1766000	0.01	12.59	100.00	AVRG
Phenanthrene	0.8310000	0.9031600	0.9031600	0.01	8.68	100.00	AVRG
Anthracene	0.7890000	0.8260800	0.8260800	0.01	4.70	100.00	AVRG
Fluoranthene	0.5900000	0.6038300	0.6038300	0.01	2.34	20.00	AVRG
Pyrene	1.7820000	1.9496000	1.9496000	0.01	9.40	100.00	AVRG
Benzo(a)anthracene	0.6070000	0.6566600	0.6566600	0.01	8.18	100.00	AVRG
Chrysene	1.2630000	1.2589000	1.2589000	0.01	-0.32	100.00	AVRG
Benzo(b)fluoranthene	1.0920000	1.2761000	1.2761000	0.01	16.86	100.00	AVRG
Benzo(k)fluoranthene	1.0865000	1.0000000	2.4390000	0.01	8.65	100.00	LINR
Benzo(a)pyrene	1.0915000	1.0000000	1.2595000	0.01	9.15	20.00	LINR
Indeno(1,2,3-cd)pyrene	0.6950000	0.7439900	0.7439900	0.01	7.05	100.00	AVRG
Dibenzo(a,h)anthracene	0.4910000	0.5044800	0.5044800	0.01	2.74	100.00	AVRG
Benzo(g,h,i)perylene	0.7610000	0.8370200	0.8370200	0.01	9.99	100.00	AVRG
1-Methylnaphthalene	0.5130000	0.5678400	0.5678400	0.01	10.69	100.00	AVRG
2-Methylnaphthalene-d10	0.3610000	0.3873100	0.3873100	0.01	7.29	100.00	AVRG
Fluorene-d10	1.1340000	1.2047000	1.2047000	0.01	6.23	100.00	AVRG
Pyrene-d10	1.3260000	1.3807000	1.3807000	0.01	4.12	100.00	AVRG

FORM VII PEST

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Lab File ID: XD200 DFTPP Injection Date: 03/03/04

Instrument ID: GCMS-X DFTPP Injection Time: 0827

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	56.3
70	Less than 2.0% of mass 69	0.7 (1.3)1
127	40.0 - 60.0% of mass 198	42.7
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	24.1
365	1.0 - 100.0% of mass 198	2.6
441	0.0 - 100.0% of mass 443	11.8 (86.6)2
442	40.0 - 100.0% of mass 198	66.9
443	17.0 - 23.0% of mass 442	13.6 (20.3)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00X0303	X4576	03/03/04	1054
02	FC-MW-22-0204MS	WG6030-3RA	X4578	03/03/04	1245
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Instrument ID: GCMS-X Calibration Date: 03/03/04 Time: 1054

Lab File ID: X4576 Init. Calib. Date(s): 03/02/04 03/02/04

Init. Calib. Times: 1004 1302

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.9240000	0.9429300	0.9429300	0.01	2.05	100.00	AVRG
2-Methylnaphthalene	0.5070000	0.5782900	0.5782900	0.01	14.06	100.00	AVRG
Acenaphthylene	1.3210000	1.4037000	1.4037000	0.01	6.26	100.00	AVRG
Acenaphthene	1.1090000	0.9394400	0.9394400	0.01	-15.29	20.00	AVRG
Fluorene	1.0450000	0.9846800	0.9846800	0.01	-5.77	100.00	AVRG
Phenanthrene	0.8310000	0.8478500	0.8478500	0.01	2.03	100.00	AVRG
Anthracene	0.7890000	0.6264800	0.6264800	0.01	-20.60	100.00	AVRG
Fluoranthene	0.5900000	0.6012100	0.6012100	0.01	1.90	20.00	AVRG
Pyrene	1.7820000	1.7035000	1.7035000	0.01	-4.40	100.00	AVRG
Benzo(a)anthracene	0.6070000	0.6036300	0.6036300	0.01	-0.56	100.00	AVRG
Chrysene	1.2630000	1.0505000	1.0505000	0.01	-16.82	100.00	AVRG
Benzo(b)fluoranthene	1.0920000	0.9319500	0.9319500	0.01	-14.66	100.00	AVRG
Benzo(k)fluoranthene	0.8642300	1.0000000	1.8965000	0.01	-13.58	100.00	LINR
Benzo(a)pyrene	0.8918200	1.0000000	1.0117000	0.01	-10.82	20.00	LINR
Indeno(1,2,3-cd)pyrene	0.6950000	0.4299600	0.4299600	0.01	-38.14	100.00	AVRG
Dibenzo(a,h)anthracene	0.4910000	0.4441200	0.4441200	0.01	-9.55	100.00	AVRG
Benzo(g,h,i)perylene	0.7610000	0.8107400	0.8107400	0.01	6.54	100.00	AVRG
1-Methylnaphthalene	0.5130000	0.5634500	0.5634500	0.01	9.83	100.00	AVRG
2-Methylnaphthalene-d10	0.3610000	0.4160200	0.4160200	0.01	15.24	100.00	AVRG
Fluorene-d10	1.1340000	1.0110000	1.0110000	0.01	-10.85	100.00	AVRG
Pyrene-d10	1.3260000	1.2247000	1.2247000	0.01	-7.64	100.00	AVRG

FORM VII PEST

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Lab File ID: XD203 DFTPP Injection Date: 03/04/04

Instrument ID: GCMS-X DFTPP Injection Time: 1527

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	54.3
70	Less than 2.0% of mass 69	0.5 (0.9)1
127	40.0 - 60.0% of mass 198	42.1
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.5
275	10.0 - 30.0% of mass 198	23.8
365	1.0 - 100.0% of mass 198	2.3
441	0.0 - 100.0% of mass 443	11.2 (80.5)2
442	40.0 - 100.0% of mass 198	74.2
443	17.0 - 23.0% of mass 442	13.8 (18.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00X0304	X4606	03/04/04	1547
02	FC-MW-06-0204	WU0359-3	X4614	03/04/04	2146
03	RR-MW-06-0204	WU0359-6	X4617	03/05/04	0000
04	A824-MW-01-0204	WU0359-7	X4618	03/05/04	0045
05	A824-MW-02-0204	WU0359-8	X4619	03/05/04	0129
06	A824-MW-03-0204	WU0359-9	X4620	03/05/04	0214
07					
08					
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12					
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FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Instrument ID: GCMS-X Calibration Date: 03/04/04 Time: 1547

Lab File ID: X4606 Init. Calib. Date(s): 03/02/04 03/02/04

Init. Calib. Times: 1004 1302

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.9240000	0.8731800	0.8731800	0.01	-5.50	100.00	AVRG
2-Methylnaphthalene	0.5070000	0.5290500	0.5290500	0.01	4.35	100.00	AVRG
Acenaphthylene	1.3210000	1.3496000	1.3496000	0.01	2.16	100.00	AVRG
Acenaphthene	1.1090000	1.0388000	1.0388000	0.01	-6.33	20.00	AVRG
Fluorene	1.0450000	1.0847000	1.0847000	0.01	3.80	100.00	AVRG
Phenanthrene	0.8310000	0.8359300	0.8359300	0.01	0.59	100.00	AVRG
Anthracene	0.7890000	0.7337300	0.7337300	0.01	-7.00	100.00	AVRG
Fluoranthene	0.5900000	0.6897400	0.6897400	0.01	16.90	20.00	AVRG
Pyrene	1.7820000	1.5444000	1.5444000	0.01	-13.33	100.00	AVRG
Benzo(a)anthracene	0.6070000	0.6935600	0.6935600	0.01	14.26	100.00	AVRG
Chrysene	1.2630000	1.2435000	1.2435000	0.01	-1.54	100.00	AVRG
Benzo(b)fluoranthene	1.0920000	1.3342000	1.3342000	0.01	22.18	100.00	AVRG
Benzo(k)fluoranthene	0.9834400	1.0000000	2.1875000	0.01	-1.66	100.00	LINR
Benzo(a)pyrene	1.0570000	1.0000000	1.2166000	0.01	5.70	20.00	LINR
Indeno(1,2,3-cd)pyrene	0.6950000	1.0712000	1.0712000	0.01	54.13	100.00	AVRG
Dibenzo(a,h)anthracene	0.4910000	0.6490200	0.6490200	0.01	32.18	100.00	AVRG
Benzo(g,h,i)perylene	0.7610000	1.0956000	1.0956000	0.01	43.97	100.00	AVRG
1-Methylnaphthalene	0.5130000	0.5173200	0.5173200	0.01	0.84	100.00	AVRG
2-Methylnaphthalene-d10	0.3610000	0.3865600	0.3865600	0.01	7.08	100.00	AVRG
Fluorene-d10	1.1340000	1.1663000	1.1663000	0.01	2.85	100.00	AVRG
Pyrene-d10	1.3260000	1.1678000	1.1678000	0.01	-11.93	100.00	AVRG

FORM VII PEST

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Lab File ID: XD204 DFTPP Injection Date: 03/05/04

Instrument ID: GCMS-X DFTPP Injection Time: 0918

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.7
68	Less than 2.0% of mass 69	1.0 (1.6)1
69	Less than 100.0% of mass 198	60.2
70	Less than 2.0% of mass 69	0.6 (1.1)1
127	40.0 - 60.0% of mass 198	46.1
197	Less than 1.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.7
275	10.0 - 30.0% of mass 198	21.5
365	1.0 - 100.0% of mass 198	1.9
441	0.0 - 100.0% of mass 443	8.8 (80.8)2
442	40.0 - 100.0% of mass 198	55.5
443	17.0 - 23.0% of mass 442	10.8 (19.5)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00X0305	X4622	03/05/04	0941
02	KW-DUP-03-0204	WU0359-4RA	X4635	03/05/04	1920
03	FC-MW-05-0204	WU0359-5RA	X4636	03/05/04	2005
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Instrument ID: GCMS-X Calibration Date: 03/05/04 Time: 0941

Lab File ID: X4622 Init. Calib. Date(s): 03/02/04 03/02/04

Init. Calib. Times: 1004 1302

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.9240000	0.9681100	0.9681100	0.01	4.77	100.00	AVRG
2-Methylnaphthalene	0.5070000	0.5489100	0.5489100	0.01	8.27	100.00	AVRG
Acenaphthylene	1.3210000	1.3041000	1.3041000	0.01	-1.28	100.00	AVRG
Acenaphthene	1.1090000	1.1156000	1.1156000	0.01	0.60	20.00	AVRG
Fluorene	1.0450000	1.0985000	1.0985000	0.01	5.12	100.00	AVRG
Phenanthrene	0.8310000	0.9686700	0.9686700	0.01	16.57	100.00	AVRG
Anthracene	0.7890000	0.7915900	0.7915900	0.01	0.33	100.00	AVRG
Fluoranthene	0.5900000	0.6504400	0.6504400	0.01	10.24	20.00	AVRG
Pyrene	1.7820000	1.9814000	1.9814000	0.01	11.19	100.00	AVRG
Benzo(a)anthracene	0.6070000	0.6005100	0.6005100	0.01	-1.07	100.00	AVRG
Chrysene	1.2630000	1.2860000	1.2860000	0.01	1.82	100.00	AVRG
Benzo(b)fluoranthene	1.0920000	1.0732000	1.0732000	0.01	-1.72	100.00	AVRG
Benzo(k)fluoranthene	0.9027900	1.0000000	1.9906000	0.01	-9.72	100.00	LINR
Benzo(a)pyrene	0.9364400	1.0000000	1.0671000	0.01	-6.36	20.00	LINR
Indeno(1,2,3-cd)pyrene	0.6950000	0.7709200	0.7709200	0.01	10.92	100.00	AVRG
Dibenzo(a,h)anthracene	0.4910000	0.5002200	0.5002200	0.01	1.88	100.00	AVRG
Benzo(g,h,i)perylene	0.7610000	0.9570700	0.9570700	0.01	25.76	100.00	AVRG
1-Methylnaphthalene	0.5130000	0.5608600	0.5608600	0.01	9.33	100.00	AVRG
2-Methylnaphthalene-d10	0.3610000	0.3454800	0.3454800	0.01	-4.30	100.00	AVRG
Fluorene-d10	1.1340000	0.9958100	0.9958100	0.01	-12.19	100.00	AVRG
Pyrene-d10	1.3260000	1.2911000	1.2911000	0.01	-2.63	100.00	AVRG

FORM VII PEST

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Lab File ID: XD206 DFTPP Injection Date: 03/07/04

Instrument ID: GCMS-X DFTPP Injection Time: 0944

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	65.2
70	Less than 2.0% of mass 69	0.4 (0.6)1
127	40.0 - 60.0% of mass 198	45.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	20.5
365	1.0 - 100.0% of mass 198	1.8
441	0.0 - 100.0% of mass 443	7.4 (83.6)2
442	40.0 - 100.0% of mass 198	47.2
443	17.0 - 23.0% of mass 442	8.9 (18.8)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00X0307	X4653	03/07/04	1010
02	FC-MW-22-0204	WU0359-2DL3	X4654	03/07/04	1056
03					
04					
05					
06					
07					
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09					
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11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

Instrument ID: GCMS-X Calibration Date: 03/07/04 Time: 1010

Lab File ID: X4653 Init. Calib. Date(s): 03/06/04 03/06/04

Init. Calib. Times: 1011 1310

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.8170000	0.8578600	0.8578600	0.01	5.00	100.00	AVRG
2-Methylnaphthalene	0.4780000	0.5095600	0.5095600	0.01	6.60	100.00	AVRG
Acenaphthylene	1.1730000	1.2420000	1.2420000	0.01	5.88	100.00	AVRG
Acenaphthene	0.9070000	0.9337700	0.9337700	0.01	2.95	20.00	AVRG
Fluorene	0.8860000	0.9495800	0.9495800	0.01	7.18	100.00	AVRG
Phenanthrene	1.0650000	0.8866200	0.8866200	0.01	-16.75	100.00	AVRG
Anthracene	0.8690000	0.7476400	0.7476400	0.01	-13.96	100.00	AVRG
Fluoranthene	0.6480000	0.6200400	0.6200400	0.01	-4.31	20.00	AVRG
Pyrene	1.8500000	1.7509000	1.7509000	0.01	-5.36	100.00	AVRG
Benzo(a)anthracene	0.6470000	0.6472200	0.6472200	0.01	0.03	100.00	AVRG
Chrysene	1.2320000	1.1607000	1.1607000	0.01	-5.79	100.00	AVRG
Benzo(b)fluoranthene	1.0510000	1.1828000	1.1828000	0.01	12.54	100.00	AVRG
Benzo(k)fluoranthene	1.8420000	1.9849000	1.9849000	0.01	7.76	100.00	AVRG
Benzo(a)pyrene	1.0420000	1.1845000	1.1845000	0.01	13.68	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.7860000	0.9689100	0.9689100	0.01	23.27	100.00	AVRG
Dibenzo(a,h)anthracene	1.2499000	1.0000000	0.5918000	0.01	24.99	100.00	2RDR
Benzo(g,h,i)perylene	0.9180000	0.8889800	0.8889800	0.01	-3.16	100.00	AVRG
1-Methylnaphthalene	0.4710000	0.5038200	0.5038200	0.01	6.97	100.00	AVRG
2-Methylnaphthalene-d10	0.3510000	0.3722400	0.3722400	0.01	6.05	100.00	AVRG
Fluorene-d10	0.9020000	0.9737900	0.9737900	0.01	7.96	100.00	AVRG
Pyrene-d10	1.3310000	1.2574000	1.2574000	0.01	-5.53	100.00	AVRG

FORM VII PEST

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEYWEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/13/04
Analysis Date: 03/03/04
Report Date: 03/08/2004
Matrix: WATER

Lab ID: WG6030-3RA& WG6030-4
Client ID: FC-MW-22-0204MS & FC-MW-22-0204MSD
SDG: WU0359
Extracted by: AB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG6030
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Naphthalene	1.9	1.9	47	53	56	* 307	* 458	6	30	30-150
2-Methylnaphthalene	1.9	1.9	29	32	35	* 180	* 322	8	30	30-150
Acenaphthylene	1.9	1.9	0.00	1.5	1.9	78	99	25	30	30-150
Acenaphthene	1.9	1.9	0.09	1.3	1.5	62	74	19	30	30-150
Fluorene	1.9	1.9	0.00	1.4	1.7	76	89	18	30	30-150
Phenanthrene	1.9	1.9	0.00	1.6	1.6	83	85	5	30	30-150
Anthracene	1.9	1.9	0.00	1.5	1.6	79	81	4	30	30-150
Fluoranthene	1.9	1.9	0.00	2.0	2.3	109	118	11	30	30-150
Pyrene	1.9	1.9	0.00	1.3	1.5	71	79	12	30	30-150
Benzo(a)anthracene	1.9	1.9	0.00	2.4	2.6	129	134	6	30	30-150
Chrysene	1.9	1.9	0.00	1.4	1.6	74	85	16	30	30-150
Benzo(b)fluoranthene	1.9	1.9	0.00	1.3	1.5	70	77	11	30	30-150
Benzo(k)fluoranthene	1.9	1.9	0.00	1.3	1.6	70	81	16	30	30-150
Benzo(a)pyrene	1.9	1.9	0.00	1.5	1.5	80	79	0.7	30	30-150
Indeno(1,2,3-cd)pyrene	1.9	1.9	0.00	0.77	1.4	41	72	* 57	30	30-150
Dibenzo(a,h)anthracene	1.9	1.9	0.00	1.3	1.2	67	64	2	30	30-150
Benzo(g,h,i)perylene	1.9	1.9	0.00	1.4	1.2	76	61	19	30	30-150

FORM III SV-1

X4578.D & X4572.D

FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO297 NAS KEYWEST SDG No.: WU0359

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG6030-BLANK	WG6030-1	69	78	118						0
02	WG6030-LCS	WG6030-2	74	76	74						0
03	FC-MW-22-0204MSD	WG6030-4	101	84	90						0
04	FC-MW-22-0204	WU0359-2	82	71	80						0
05	FC-MW-22-0204MS	WG6030-3RA	90	68	79						0
06	FC-MW-06-0204	WU0359-3	87	76	122						0
07	RR-MW-06-0204	WU0359-6	64	54	73						0
08	A824-MW-01-0204	WU0359-7	83	76	93						0
09	A824-MW-02-0204	WU0359-8	65	63	79						0
10	A824-MW-03-0204	WU0359-9	79	67	74						0
11	KW-DUP-03-0204	WU0359-4RA	75	71	97						0
12	FC-MW-05-0204	WU0359-5RA	60	58	92						0
13	FC-MW-22-0204	WU0359-2DL3	D	D	D						0
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1	= 2-Methylnaphthalene-d1	(30-150)
S2	= Fluorene-d10	(30-150)
S3	= Pyrene-d10	(30-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 8
FL-PRO ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project: CTO297 NAS KEY WEST SDG No.: WU0359

GC Column: ZB-1 ID: 0.53 (mm) Init. Calib. Date(s): 01/15/04 01/15/04

Instrument ID: GC12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 18.20 S2 : 24.42

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	ICAL	FLPRO 5 UG/M	01/15/04	0329	18.20	24.42
02	ICAL	FLPRO 20 UG/	01/15/04	0438	18.20	24.42
03	ICAL	FLPRO 50 UG/	01/15/04	0548	18.20	24.42
04	ICAL	FLPRO 100UG/	01/15/04	0658	18.20	24.42
05	ICAL	FLPRO 200UG/	01/15/04	0809	18.20	24.42
06	INDSOURCE	FLPRO IND	01/15/04	0919	18.20	24.42
07	CV	FLPRO 50 UG/	02/26/04	1924	18.19	24.40
08	WG5979-BLANK	WG5979-1	02/26/04	2034	18.19	24.41
09	WG5979-LCS	WG5979-2	02/26/04	2144	18.20	24.40
10	CV	FLPRO 50 UG/	02/27/04	0922	18.19	24.40
11	FC-MW-22-020	WU0359-2	02/27/04	1032	18.20	24.40
12	FC-MW-06-020	WU0359-3	02/27/04	1142	18.19	24.40
13	KW-DUP-03-02	WU0359-4	02/27/04	1252	18.19	24.40
14	FC-MW-05-020	WU0359-5	02/27/04	1402	18.20	24.40
15	RR-MW-06-020	WU0359-6	02/27/04	1513	18.19	24.40
16	A824-MW-01-0	WU0359-7	02/27/04	1623	18.20	24.40
17	A824-MW-02-0	WU0359-8	02/27/04	1733	18.20	24.40
18	A824-MW-03-0	WU0359-9	02/27/04	1843	18.20	24.40
19	FC-MW-22-020	WG5979-3	02/27/04	1952	18.20	24.40
20	FC-MW-22-020	WG5979-4	02/27/04	2103	18.20	24.41

QC LIMITS
S1 = O-Terphenyl (+/- 0.36 MINUTES)
S2 = n-Triacontane-D62 (+/- 0.49 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST

FORM 8
FL-PRO ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project: CTO297 NAS KEY WEST SDG No.: WU0359

GC Column: ZB-1 ID: 0.53 (mm) Init. Calib. Date(s): 01/15/04 01/15/04

Instrument ID: GC12

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 18.20 S2 : 24.42

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01	CV	FLPRO 50 UG/	02/28/04	0032	18.20	24.41
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

	QC LIMITS
S1 = O-Terphenyl	(+/- 0.36 MINUTES)
S2 = n-Triacontane-D62	(+/- 0.49 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG5979-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Lab File ID: CUB2051 Lab Sample ID: WG5979-1

Instrument ID: GC12 Date Extracted: 02/11/04

Matrix: (soil/water) WATER Date Analyzed: 02/26/04

Level: (low/med) LOW Time Analyzed: 2034

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG5979-LCS	WG5979-2	CUB2052	02/26/04	2144
02	FC-MW-22-0204	WU0359-2	CUB2063	02/27/04	1032
03	FC-MW-06-0204	WU0359-3	CUB2064	02/27/04	1142
04	KW-DUP-03-0204	WU0359-4	CUB2065	02/27/04	1252
05	FC-MW-05-0204	WU0359-5	CUB2066	02/27/04	1402
06	RR-MW-06-0204	WU0359-6	CUB2067	02/27/04	1513
07	A824-MW-01-0204	WU0359-7	CUB2068	02/27/04	1623
08	A824-MW-02-0204	WU0359-8	CUB2069	02/27/04	1733
09	A824-MW-03-0204	WU0359-9	CUB2070	02/27/04	1843
10	FC-MW-22-0204MS	WG5979-3	CUB2071	02/27/04	1952
11	FC-MW-22-0204MSD	WG5979-4	CUB2072	02/27/04	2103
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV SV

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO297 NAS KEY WEST
PO No:
Sample Date:
Received Date:
Extraction Date: 02/11/04
Analysis Date: 02/26/04
Report Date: 03/01/2004
Matrix: WATER
% Solids: NA

Lab ID: WG5979-1
Client ID: WG5979-Blank
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Petroleum Range Organics	U	500	1.0	500	500	280
	n-Triacontane-D62		104%				
	O-Terphenyl		119%				

FORM 6
FL-PRO INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC12 Calibration Date(s): 01/15/04 01/15/04

Column: ZB-1 ID: 0.53 (mm) Calibration Time(s): 0329 0809

LAB FILE ID: RF5: CUA2058 RF20: CUA2059 RF50: CUA2060
RF100: CUA2061 RF200: CUA2062

COMPOUND	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	%RSD OR R^2	MAX %RSD OR R^2
C-24	28608	115080	291160	567020	1159700	LINR	0.21946184	1.729e-004	0.99986	0.99000
C-8	29571	113520	285540	559500	1120700	LINR	-0.3179999	1.787e-004	0.99998	0.99000
C-10	44616	119260	291320	572080	1153100	LINR	-0.9962156	1.747e-004	0.99981	0.99000
C-12	8727	118790	296890	573940	1155400	LINR	0.67416490	1.722e-004	0.99955	0.99000
C-14	30797	116970	289990	572110	1157900	LINR	-5.64e-002	1.731e-004	0.99996	0.99000
C-16	30385	117240	293420	575020	1165800	LINR	-3.37e-002	1.72e-004	0.99994	0.99000
C-18	29940	116910	292420	573010	1166600	LINR	8.384e-002	1.719e-004	0.99991	0.99000
C-28	29723	116310	294110	572040	1164400	LINR	3.314e-002	1.722e-004	0.99990	0.99000
C-20	29610	116560	293280	571720	1164600	LINR	6.577e-002	1.722e-004	0.99990	0.99000
C-22	29259	116660	293340	572810	1169300	LINR	0.16148628	1.715e-004	0.99989	0.99000
FL-PRO peaks C8-C40	491470	1955200	4966100	9706200	2.e+007	LINR	0.84359268	1.732e-004	0.99994	0.99000
C-26	29407	115890	294330	572720	1167500	LINR	0.11742793	1.717e-004	0.99989	0.99000
C-38	28905	107560	279190	558160	1129200	LINR	0.41790430	1.771e-004	0.99995	0.99000
C-40	23709	102680	285040	550470	1136800	LINR	1.00039501	1.758e-004	0.99970	0.99000
C-30	31378	117890	295870	573650	1161900	LINR	-0.2570571	1.727e-004	0.99992	0.99000
C-32	29450	114070	293980	572950	1156100	LINR	-4.48e-002	1.732e-004	0.99995	0.99000
C-34	29113	115760	300230	585980	1178500	LINR	-2.36e-002	1.698e-004	0.99995	0.99000
C-36	28271	114090	296030	583060	1159300	LINR	-0.1381361	1.723e-004	0.99995	0.99000
O-Terphenyl	6399.80	6360.20	6552.40	6396.50	6295.50	AVRG		6400.87200	1.477	40.000
n-Triacontane-D62	5100.80	5099.40	5229.10	5106.60	5062.00	AVRG		5119.58333	1.245	40.000

FORM VI FL-PRO

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC12 Calibration Date: 02/26/04 Time: 1924

Lab File ID: CUB2050 Init. Calib. Date(s): 01/15/04 01/15/04

Init. Calib. Times: 0329 0809

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
C-24	48.790000	50.000000	5809.3000	0.01	-2.42	25.00	LINR
C-8	49.052000	50.000000	5531.8000	0.01	-1.90	25.00	LINR
C-10	49.467000	50.000000	5595.0000	0.01	-1.07	25.00	LINR
C-12	50.798000	50.000000	5913.9000	0.01	1.60	25.00	LINR
C-14	49.983000	50.000000	5895.1000	0.01	-0.03	25.00	LINR
C-16	48.902000	50.000000	5915.8000	0.01	-2.20	25.00	LINR
C-18	49.250000	50.000000	5927.7000	0.01	-1.50	25.00	LINR
C-28	48.774000	50.000000	5856.8000	0.01	-2.45	25.00	LINR
C-20	49.036000	50.000000	5886.7000	0.01	-1.93	25.00	LINR
C-22	49.067000	50.000000	5900.2000	0.01	-1.87	25.00	LINR
FL-PRO peaks C8-C40	838.36000	850.00000	5777.4000	0.01	-1.37	25.00	LINR
C-26	48.741000	50.000000	5854.8000	0.01	-2.52	25.00	LINR
C-38	50.176000	50.000000	5558.5000	0.01	0.35	25.00	LINR
C-40	50.513000	50.000000	4903.0000	0.01	1.03	25.00	LINR
C-30	48.947000	50.000000	5893.2000	0.01	-2.11	25.00	LINR
C-32	48.923000	50.000000	5852.5000	0.01	-2.15	25.00	LINR
C-34	48.836000	50.000000	5999.3000	0.01	-2.33	25.00	LINR
C-36	49.105000	50.000000	5921.8000	0.01	-1.79	25.00	LINR
O-Terphenyl	6400.9000	6597.0000	6597.0000	0.01	3.06	25.00	AVRG
n-Triacontane-D62	5119.6000	5212.1000	5212.1000	0.01	1.81	25.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC12 Calibration Date: 02/27/04 Time: 0922

Lab File ID: CUB2062 Init. Calib. Date(s): 01/15/04 01/15/04

Init. Calib. Times: 0329 0809

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
C-24	48.885000	50.000000	5630.2000	0.01	-2.23	25.00	LINR
C-8	48.707000	50.000000	5485.9000	0.01	-2.59	25.00	LINR
C-10	49.526000	50.000000	5782.8000	0.01	-0.95	25.00	LINR
C-12	50.229000	50.000000	5754.2000	0.01	0.46	25.00	LINR
C-14	49.978000	50.000000	5779.4000	0.01	-0.04	25.00	LINR
C-16	49.624000	50.000000	5775.5000	0.01	-0.75	25.00	LINR
C-18	49.642000	50.000000	5766.7000	0.01	-0.72	25.00	LINR
C-28	48.819000	50.000000	5666.3000	0.01	-2.36	25.00	LINR
C-20	49.248000	50.000000	5713.2000	0.01	-1.50	25.00	LINR
C-22	49.216000	50.000000	5721.8000	0.01	-1.57	25.00	LINR
FL-PRO peaks C8-C40	839.61000	850.00000	5698.6000	0.01	-1.22	25.00	LINR
C-26	48.786000	50.000000	5668.8000	0.01	-2.43	25.00	LINR
C-38	50.399000	50.000000	5643.7000	0.01	0.80	25.00	LINR
C-40	48.973000	50.000000	5456.9000	0.01	-2.05	25.00	LINR
C-30	48.976000	50.000000	5702.5000	0.01	-2.05	25.00	LINR
C-32	49.052000	50.000000	5669.0000	0.01	-1.90	25.00	LINR
C-34	49.981000	50.000000	5890.6000	0.01	-0.04	25.00	LINR
C-36	49.566000	50.000000	5768.2000	0.01	-0.87	25.00	LINR
O-Terphenyl	6400.9000	6434.6000	6434.6000	0.01	0.53	25.00	AVRG
n-Triacontane-D62	5119.6000	5046.4000	5046.4000	0.01	-1.43	25.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project: CTO297 NAS KEY WEST SDG No.: WU0359

Instrument ID: GC12 Calibration Date: 02/28/04 Time: 0032

Lab File ID: CUB2075 Init. Calib. Date(s): 01/15/04 01/15/04

Init. Calib. Times: 0329 0809

GC Column: ZB-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
C-24	50.433000	50.000000	5809.3000	0.01	0.87	25.00	LINR
C-8	49.117000	50.000000	5531.8000	0.01	-1.77	25.00	LINR
C-10	47.885000	50.000000	5595.0000	0.01	-4.23	25.00	LINR
C-12	51.605000	50.000000	5913.9000	0.01	3.21	25.00	LINR
C-14	50.979000	50.000000	5895.1000	0.01	1.96	25.00	LINR
C-16	50.831000	50.000000	5915.8000	0.01	1.66	25.00	LINR
C-18	51.026000	50.000000	5927.7000	0.01	2.05	25.00	LINR
C-28	50.460000	50.000000	5856.8000	0.01	0.92	25.00	LINR
C-20	50.741000	50.000000	5886.7000	0.01	1.48	25.00	LINR
C-22	50.745000	50.000000	5900.2000	0.01	1.49	25.00	LINR
FL-PRO peaks C8-C40	851.01000	850.00000	5777.4000	0.01	0.12	25.00	LINR
C-26	50.383000	50.000000	5854.8000	0.01	0.77	25.00	LINR
C-38	49.645000	50.000000	5558.5000	0.01	-0.71	25.00	LINR
C-40	44.103000	50.000000	4903.0000	0.01	-11.79	25.00	LINR
C-30	50.623000	50.000000	5893.2000	0.01	1.25	25.00	LINR
C-32	50.641000	50.000000	5852.5000	0.01	1.28	25.00	LINR
C-34	50.904000	50.000000	5999.3000	0.01	1.81	25.00	LINR
C-36	50.890000	50.000000	5921.8000	0.01	1.78	25.00	LINR
O-Terphenyl	6400.9000	6597.0000	6597.0000	0.01	3.06	25.00	AVRG
n-Triacontane-D62	5119.6000	5212.1000	5212.1000	0.01	1.81	25.00	AVRG

FORM VII PEST

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO297 NAS KEY WEST
PO No:
Sample Date: 02/07/04
Received Date: 02/10/04
Extraction Date: 02/11/04
Analysis Date: 02/27/04
Report Date: 03/01/2004
Matrix: WATER

Lab ID: WG5979-3 & WG5979-4
Client ID: FC-MW-22-0204MS & FC-MW-22-0204MSD
SDG: WU0359
Extracted by: JP
Extraction Method: SW846 3510
Analyst: SAW
Analysis Method: SW846 M8100
Lab Prep Batch: WG5979
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Petroleum Range Organics	1700	1700	2700	3800	4600	65	* 112	19	30	41-101

FORM III SV-1

CUB2071.d & CUB2072.d

FORM 2
WATER FL-PRO SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code:

Project: CTO297 NAS KEY WEST SDG No.: WU0359

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 OTP#	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG5979-BLANK	WG5979-1	104	119							0
02	WG5979-LCS	WG5979-2	76	93							0
03	FC-MW-22-0204	WU0359-2	90	94							0
04	FC-MW-06-0204	WU0359-3	77	86							0
05	KW-DUP-03-0204	WU0359-4	81	90							0
06	FC-MW-05-0204	WU0359-5	70	75*							1
07	RR-MW-06-0204	WU0359-6	80	89							0
08	A824-MW-01-0204	WU0359-7	93	101							0
09	A824-MW-02-0204	WU0359-8	77	84							0
10	A824-MW-03-0204	WU0359-9	68	79*							1
11	FC-MW-22-0204MS	WG5979-3	68	80*							1
12	FC-MW-22-0204MSD	WG5979-4	88	99							0
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1	= n-Triacontane-D62	(42-193)
S2 (OTP)	= O-Terphenyl	(82-142)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0402235

Work Order Summary

CLIENT:	Ms. Andrea Colby Katahdin Laboratory 340 County Road, #5 West Brook, ME 04092	**BILL TO:**	Ms. Andrea Colby Katahdin Laboratory 340 County Road, #5 West Brook, ME 04092
PHONE:	207-874-2400	**P.O. #**	
FAX:	207-775-4029	**PROJECT #**	WU0359 Keywest
DATE RECEIVED:	2/13/2004	**CONTACT:**	Betty Chu
DATE COMPLETED:	2/25/2004		

FRACTION #	NAME	TEST
01A	RR-MW-06-0204	Mod RSK-175
02A	A824-MW-01-0204	Mod RSK-175
03A	A824-MW-02-0204	Mod RSK-175
04A	A824-MW-03-0204	Mod RSK-175
05A	Lab Blank	Mod RSK-175
06A	LCS	Mod RSK-175

CERTIFIED BY: Linda J. Freeman

Laboratory Director

DATE: 02/26/04

Certfication numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/03, Expiration date: 06/30/04
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified RSK 175
Katahdin Laboratory
Workorder# 0402235

Four VOA Vial-40 mL samples were received on February 13, 2004. The laboratory performed analysis via Modified RSK 175 for Methane, Ethane and Ethene using GC/FID. The method involves placing an aliquot of the sample in a headspace vial. The vial is then placed into HP7694 Headspace Autosampler equipped with oven, shaker and 1 mL sample loop. Sample is incubated and then equilibrated at 40°C for 15 minutes with high agitation. Finally, a direct injection of the headspace is performed. See the data sheets for the reporting limits for each compound.

Requirement	*RSK 175*	*ATL Modifications*
Sample Collection	Collect sample in 60 mL crimp-top vial.	Collect sample in 40 mL VOA vial.
Headspace Generation	Headspace is generated in 60 mL sample vial by displacing volume of liquid with Helium. The amount of liquid should be 10% of sample volume in bottle, up to 10 mL.	5.0 mL of sample is displaced with 5.0 mL Nitrogen and transferred to a Nitrogen purged and capped autosampler vial. Headspace is then generated in the autosampler vial.
Sample Preparation	Sample is shaken 5 min. to equilibrate analyte between headspace and liquid phase.	Prior to injection, autosampler shakes sample for 15 min. while heating to 40°C.
Headspace Injection	Syringe injection of 300 mL headspace into GC.	Autosampler pressurizes sample to fill 1.0 mL loop with headspace sample.
Calibration and Quantitation	Direct injections of gas phase standards are used to obtain a Calibration Curve. Henry's Law is used to calculate mg of gas per Liter of water. Calculation requires recording total volume of serum bottle and headspace, and sample temperature.	Calibration standards are prepared by addition of a gaseous spike solution to clean water. Response factors are calculated for each level of a multi point calibration, and the mean is used to calculate quantitation for each target analyte.
Initial Calibration Curve (ICAL)	Linear regression	% RSD </= 30%, use average RF to quantify results
Lab Blanks	Blank subtraction is performed.	No blank subtraction; Lab Blank must be less than the Reporting Limit.
Specified Detectors	FID or ECD	FID or TCD

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
RR-MW-06-0204	0402235-01A	2/ 9/2004	2/13/2004	NA	10	2/19/2004	NA	Good
A824-MW-01-0204	0402235-02A	2/ 9/2004	2/13/2004	NA	10	2/19/2004	NA	Good
A824-MW-02-0204	0402235-03A	2/ 9/2004	2/13/2004	NA	10	2/19/2004	NA	Good
A824-MW-03-0204	0402235-04A	2/ 9/2004	2/13/2004	NA	10	2/19/2004	NA	Good
Lab Blank	0402235-05A	NA	NA	NA	NA	2/19/2004	NA	Good
LCS	0402235-06A	NA	NA	NA	NA	2/19/2004	NA	Good

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 0402235-05A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7021903	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/19/04 10:32 AM

Compound	Rpt. Limit (ug/ml)	Amount (ug/ml)
Methane	0.010	Not Detected
Ethane	0.010	Not Detected
Ethene	0.010	Not Detected

Container Type: NA - Not Applicable

Air Toxics Ltd.

INITIAL CALIBRATION DATA

Start Cal Date : 11-APR-2003 11:42
End Cal Date : 11-APR-2003 14:02
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/gc7.i/16Jul2003.b/38100411m5a.m
Cal Date : 17-Jul-2003 10:52 atoyama
Curve Type : Average

Calibration File Names:
Level 1: /chem/gc7.i/11Apr2003.b/7041103.d
Level 2: /chem/gc7.i/11Apr2003.b/7041104.d
Level 3: /chem/gc7.i/11Apr2003.b/7041105.d
Level 4: /chem/gc7.i/11Apr2003.b/7041106.d
Level 5: /chem/gc7.i/11Apr2003.b/7041107.d
Level 6: /chem/gc7.i/11Apr2003.b/7041108.d

Compound	0.00500 Level 1	0.02700 Level 2	0.06700 Level 3	1.330 Level 4	6.651 Level 5	133.028 Level 6	___ RRF	% RSD
1 Methane	23473600	20391519	18145642	19641331	15588518	18737320	19329655	13.519
2 Ethylene	22286222	21228170	19317603	20626919	16449448	+++++	19981673	11.246
3 Ethane	23052444	20508100	18422992	19735760	15755809	+++++	19495021	13.781
4 Propene	23241100	22213288	19741557	20499315	15275004	23483000	20742211	14.761
5 Propane	24163100	21716018	19656431	20275345	15092413	22819091	20620400	15.365

Data File: /chem/gc7.i/19Feb2004.b/7021901.d
Report Date: 19-Feb-2004 10:28

Air Toxics Ltd.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc7.i
Lab File ID: 7021901.d
Analysis Type: AIR
Lab Sample ID: ccv
Method: /chem/gc7.i/19Feb2004.b/38100411m5a.m

Injection Date: 19-FEB-2004 09:50
Init. Cal. Date(s): 11-APR-2003 11-APR-2003
Init. Cal. Times: 11:42 14:02
Quant Type: ESTD

COMPOUND	RRF / AMOUNT	RF0.000	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Methane	19329655	21171226	0.100	-9.52718	30.00000	Averaged
2 Ethylene	19981673	22566754	0.010	-12.93726	30.00000	Averaged
3 Ethane	19495021	21389114	0.010	-9.71578	30.00000	Averaged

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 0402235-06A

MODIFIED METHOD RSK-175 GC/FID

File Name:	7021902	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/19/04 10:11 AM

Compound	%Recovery
Methane	92
Ethane	96
Ethene	97

Container Type: NA - Not Applicable

Field Duplicates - WU0359

	Sample		Duplicate		RPD %	Difference
	FC-MW-06-0204		KW-DUP-03-0204			
	UG/L		UG/L			
Benzene	0.3	J	0.3	J	0.0	0
Ethylbenzene	0.4	J	0.4	J	0.0	0
m+p-xylenes	0.4	J	0.4	J	0.0	0
total xylenes	0.4	J	0.4	J	0.0	0
1-Methylnaphthalene	0.098	J	0.091	J	7.4	0
Naphthalene	0.099	J	0.088	J	11.8	0