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NAS CECIL FIELD
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SAMPLING AND ANALYSIS OUTLINE AND REPORT MAIN BASE AREA 7 BASE
REALIGNMENT AND CLOSURE NAS CECIL FIELD FL
1/1/1999
HARDING LAWSON ASSOCIATES

SAMPLING AND ANALYSIS OUTLINE AND REPORT

MAIN BASE AREA 7

BASE REALIGNMENT AND CLOSURE

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

Unit Identification No. N60200

Contract No. N62467-89-D-0317/090

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Revision 0.0

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GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
AQUIRE	Aquatic Information Retrieval
BCT	BRAC cleanup team
BRAC	Base Realignment and Closure
EBS	environmental baseline survey
FDEP	Florida Department of Environmental Protection
IR	Installation Restoration
MB7	Main Base Area 7
NAS	Naval Air Station
PRE	preliminary risk evaluation
SCTL	soil cleanup target level
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1.0 INTRODUCTION

Main Base Area 7 (MB7) is the site designation assigned to an undeveloped pine forest located along the westernmost property boundary of the Main Base at Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. The perimeter of MB7 is formed by Perimeter Road to the east, fences to the north and south, and a tree line to the west (Figure 1). No buildings are located within MB7.

The Environmental Baseline Survey (EBS) Report (ABB Environmental Services, Inc. [ABB-ES], 1994a) documents the presence of several small disposal sites containing household debris or debris. The debris does not appear to have adversely impacted the property.

MB7 borders private property to the west and four Installation Restoration (IR) sites (Sites 3, 5, 17, and Potential Source of Contamination 4) to the east.

The EBS Report recommended that MB7 be classified as Gray due to the presence of IR sites to the east and potential migration of contaminants from these sites to MB7.

Harding Lawson Associates conducted an additional site walkover of MB7 in January 1997. Several locations at which household debris was disposed of were noted. However, no areas of environmental concern were noted during the walkover of MB7. A sheen was noted on surface water in the drainage ditch and a surface water and sediment sample was recommended for collection and analysis.

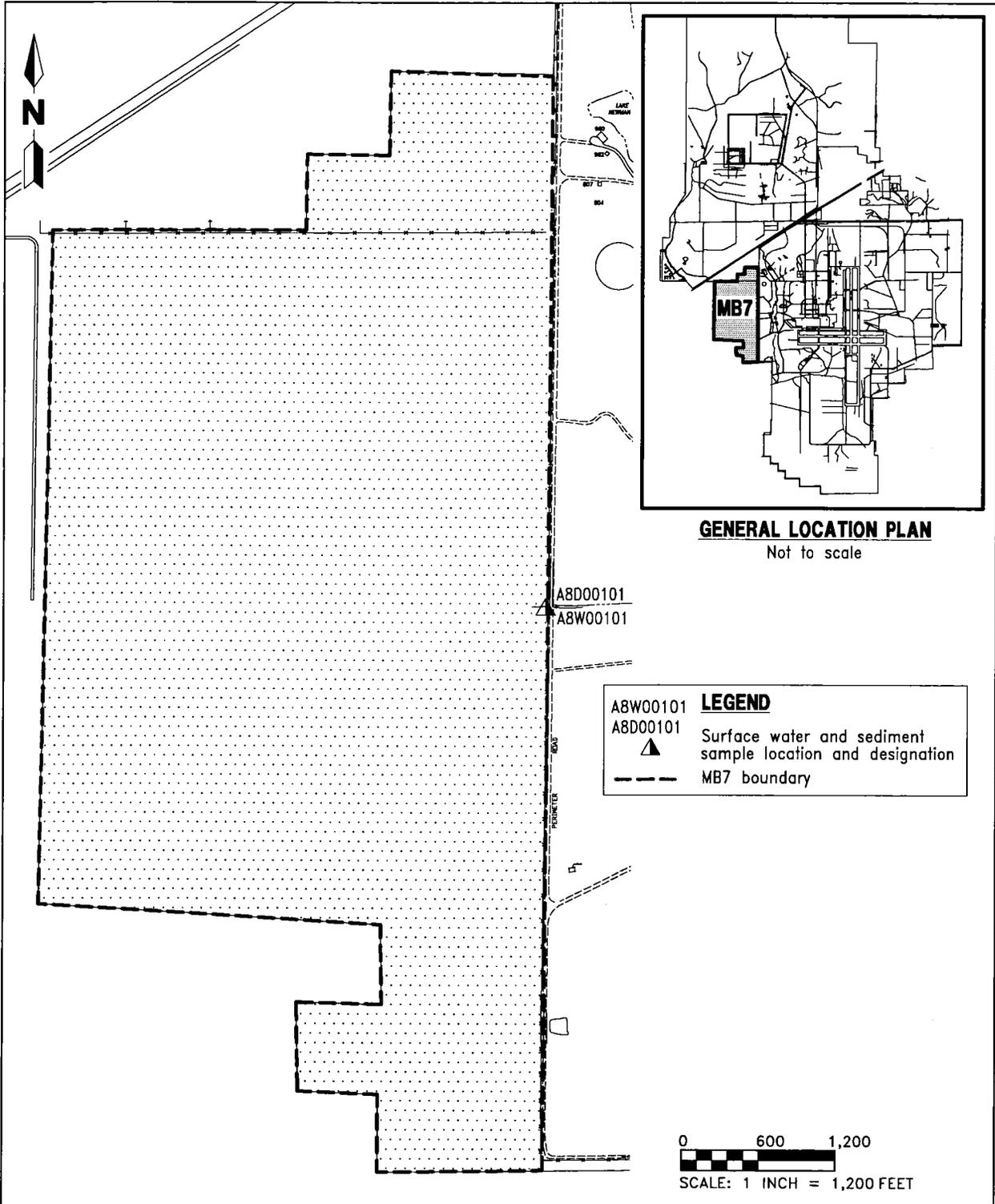
2.0 SAMPLING AND ANALYSIS OUTLINE

The Base Realignment and Closure (BRAC) cleanup team (BCT) reviewed the available data and discussed the strategy for Phase II Sampling and Analysis of MB7 during the BCT meeting on July 16, 1997. The BCT's consensus on the strategy for assessment reached at this meeting involved collection and analysis of one surface water and sediment sample from the drainage ditch on the east side of MB7.

Sample collection techniques, quality assurance objectives, quality control requirements, and sample handling and shipping procedures are outlined in the BRAC Project Operations Plan (ABB-ES, 1994b).

3.0 PHASE II INVESTIGATION AND PRELIMINARY RISK EVALUATION

One surface water and sediment sample was collected and submitted to Environmental Conservation Laboratories for full target compound list and target analyte list analysis. A preliminary risk evaluation (PRE), based on the analytical results, was conducted to assess potential risks to human and ecological receptors posed by contaminants in surface water and sediment. The evaluation was conducted in general conformance with methodology provided in the U.S. Environmental Protection Agency (USEPA) Region IV memorandum entitled "Amended



**FIGURE 1
MAIN BASE OPEN AREA 7 (MB7)
SAMPLE LOCATION PLAN**



SAMPLING AND ANALYSIS REPORT

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

Guidance on PREs for the Purpose of Reaching a Finding of Suitability to Lease (FOSL)" (USEPA, 1994), a USEPA Region IV bulletin on ecological risk assessment (USEPA, 1995), and minutes of meetings with the USEPA and the Florida Department of Environmental Protection concerning PREs (ABB-ES, 1995).

Inorganic analytes were compared to NAS Cecil Field screening criteria for inorganics established by the NAS Cecil Field partnering team. The NAS Cecil Field screening criteria were determined by using the nonparametric upper-outside value cutoffs as described in *Understanding Robust and Exploratory Data Analysis* (Hoaglin et al., 1983). These screening values were developed from data collected throughout NAS Cecil Field. No risk evaluation is conducted for inorganic analytes detected at concentrations below NAS Cecil Field screening criteria for inorganics.

All detected analytes were compared to readily available ecological screening values to assess the likelihood of adverse effects associated with potential exposure to surface water and sediment (Appendix A).

One volatile organic compound (VOC), and six inorganic analytes were detected in the sediment sample. Calcium and copper were the only inorganic analytes detected at concentrations in excess of NAS Cecil Field inorganic background data set values. However, no ecological screening criteria were exceeded; therefore, no further ecological risk evaluation is required.

Four inorganic analytes were detected in the surface water sample. Aluminum and iron were detected at concentrations exceeding NAS Cecil Field inorganic background data set values. Aluminum also exceeded all ecological screening criteria. Iron exceeded all the ecological screening criteria with the Aquatic Information Retrieval (AQUIRE) value.

4.0 CONCLUSIONS AND RECOMMENDATIONS

No evidence of release or disposal of hazardous materials was observed or documented within MB6. One VOC and six inorganics were detected in the sediment sample collected during a Phase II evaluation of MB7. The detected concentrations are below the ecological screening criteria used in the evaluation and do not represent a hazard to the environment. Four inorganic analytes were detected in the surface water sample collected from the drainage ditch at MB7. Aluminum and iron were detected at concentrations above NAS Cecil Field and ecologic screening criteria (with the exception of the AQUIRE value for iron. Therefore, the color classification for MB7 should be changed from 7/Gray to 3/Light Green, to indicate that one VOC and several inorganic analytes have been detected at concentrations that do not require remedial action.

5.0 REFERENCES

- ABB Environmental Services, Inc. (ABB-ES). 1994a. *Base Realignment and Closure Environmental Baseline Survey Report, Naval Air Station, Cecil Field, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOC), North Charleston, South Carolina (November).
- ABB-ES. 1994b. *Project Operations Plan for Cecil Field and Health and Safety Plan*. Prepared for SOUTHNAVFACENGCOC, North Charleston, South Carolina (December).
- ABB-ES. 1995. Minutes of September 25, 1995, conference call to discuss preliminary risk evaluations.
- Hoaglin, D.C., F. Mosteller, and J.W. Tukey. 1983. *Understanding Robust and Exploratory Data Analysis*. New York: John Wiley and Sons, Inc.
- U.S. Environmental Protection Agency (USEPA). 1994. Memorandum from USEPA Region IV. Subject: "Amended Guidance on Preliminary Risk Evaluations (PREs) for the Purpose of Reaching a Finding of Suitability to Lease (FOSL)." Atlanta, Georgia (December 20).
- USEPA. 1995. *Supplemental Guidance to RAGS*. Region IV bulletins. USEPA Region IV Waste Management Division. Atlanta, Georgia.

APPENDIX A

LABORATORY ANALYTICAL DATA

**Preliminary Ecological Risk Evaluation Table for Analytes Detected in Surface Water
Main Base Open Area 7
Naval Air Station Cecil Field**

Analyte	Sample	BKGRD	Screening Criteria			
	A8W00101		Region IV ¹	Ambient ²	Florida ³	AQUIRE ⁴
*Aluminum	500	1042	87	87		50
Calcium	660	43000				
*Iron	3200	3027	1000	1000	1000	3700
Sodium	4900	12175				

Notes:

All values are reported in ug/l

BKGRD=NAS Cecil Field Inorganic Background Data Set

* Asterisk indicates screening criteria has been exceeded.

Screening Criteria

(refer to the Project Operations Plan, ABB-ES, 1995, Appendix A for details, acronyms and definitions)

¹ USEPA Region IV Waste Management Division Chronic Freshwater Surface Water Screening Values for Hazardous Waste Sites (November, 1995)

² Federal Ambient Water Criteria (USEPA 1988, 1991)

³ Florida Administrative Code Surface water Quality Standards, Chapter 62-302 (1995)

⁴ Reported toxicity values from the USEPA Aquire database

**Preliminary Ecological Risk Evaluation Table for Analytes Detected in Sediment Samples
Main Base Area 7
Naval Air Station Cecil Field**

Analyte	Sample	Screening Criteria							
	A8D00101	BKGRD	Region IV ¹	ER-L ²	ER-M ³	LEL ⁴	SQG ⁵	TEL ⁶	PEL ⁷
Tetrachloroethene	2.6								
Aluminum	360	4432.5							
*Calcium	83	9.44							
*Copper	10	5.965	18.7	34	270	16		18.7	108
Iron	61	1486				20000			
Lead	2.4	196.9	30.2	46.7	218	31		30.2	112
Zinc	14	36.5	124	150	410	120		124	271

Notes:

All Analytes are reported in mg/kg.

* Asterisk indicates screening criteria has been exceeded.

Screening Criteria (refer to the Project Operations Plan, ABB-ES, 1995, Appendix A for details, acronyms and definitions)

¹ Draft USEPA Region IV Waste Management Division Sediment Screening Values. (USEPA, 11/95)

² ER-L NOAA Sediment Guidelines, protective of 90% of the test population of benthic organisms

³ ER-M NOAA Sediment Guidelines, protective of 50% of the test population of benthic organisms

⁴ LEL OME Provincial Sediment Quality Guidelines (Persaud et al., 1992)

⁵ SQG USEPA Sediment Quality Guidelines (USEPA, 1988, 1993)

⁶ TEL Sediment quality Assessment Guidelines, MacDonald Environmental Sciences, Ltd., 1994.

⁷ PEL Sediment quality Assessment Guidelines, MacDonald Environmental Sciences, Ltd., 1994.

NAS CECIL FIELD -- MAIN BASE OPEN AREA 7
 SEDIMENT -- ANALYTICAL DATA -- REQUEST NO. 10620

Lab Sample Number: JR38592
 Site: BRAC
 Locator: A8D00101
 Collect Date: 28-OCT-98

	VALUE	QUAL UNITS	DL
BRAC VOLATILES			
1,1,1-Trichloroethane	1 U	ug/kg	1
1,1,2,2-Tetrachloroethane	1 U	ug/kg	1
1,1,2-Trichloroethane	1 U	ug/kg	1
1,1-Dichloroethane	1 U	ug/kg	1
1,1-Dichloroethene	1 U	ug/kg	1
1,2-Dichloroethane	1 U	ug/kg	1
1,2-Dichloropropane	1 U	ug/kg	1
Benzene	1 U	ug/kg	1
Bromodichloromethane	1 U	ug/kg	1
Bromoform	1 U	ug/kg	1
Bromomethane	1 U	ug/kg	1
Carbon tetrachloride	1 U	ug/kg	1
Chlorobenzene	1 U	ug/kg	1
Chloroethane	1 U	ug/kg	1
Chloroform	1 U	ug/kg	1
Chloromethane	1 U	ug/kg	1
Dibromochloromethane	1 U	ug/kg	1
Ethyl benzene	1 U	ug/kg	1
Methyl chloride	1 U	ug/kg	1
Tetrachloroethene	2.6	ug/kg	1
Toluene	1 U	ug/kg	1
Trichloroethene	1 U	ug/kg	1
Vinyl chloride	1 U	ug/kg	1
cis-1,3-Dichloropropene	1 U	ug/kg	1
m,p-Xylene	1 U	ug/kg	1
o-Xylene	1 U	ug/kg	1
trans-1,2-Dichloroethene	1 U	ug/kg	1
trans-1,3-Dichloropropene	1 U	ug/kg	1
BRAC SEMIVOLATILES			
Phenol	230 U	ug/kg	230
bis(2-Chloroethyl)ether	230 U	ug/kg	230
1,3-Dichlorobenzene	230 U	ug/kg	230
1,4-Dichlorobenzene	230 U	ug/kg	230
1,2-Dichlorobenzene	230 U	ug/kg	230
N-Nitroso-di-n-propylamine	230 U	ug/kg	230
Nitrobenzene	230 U	ug/kg	230
Isophorone	230 U	ug/kg	230
2-Methylphenol	230 U	ug/kg	230
2-Nitrophenol	230 U	ug/kg	230
2,4-Dimethylphenol	230 U	ug/kg	230
bis(2-Chloroethoxy) methane	230 U	ug/kg	230
2,4-Dichlorophenol	230 U	ug/kg	230
1,2,4-Trichlorobenzene	230 U	ug/kg	230
Naphthalene	230 U	ug/kg	230
Hexachlorobutadiene	230 U	ug/kg	230
Hexachlorocyclopentadiene	230 U	ug/kg	230
Hexachloroethane	230 U	ug/kg	230
4-Chloro-3-methylphenol	230 U	ug/kg	230
2-Methylnaphthalene	230 U	ug/kg	230

NAS CECIL FIELD -- MAIN BASE OPEN AREA 7
 SEDIMENT -- ANALYTICAL DATA -- REQUEST NO. 10620

Lab Sample Number: JR38592
 Site: BRAC
 Locator: A8D00101
 Collect Date: 28-OCT-98

	VALUE	QUAL	UNITS	DL
2,4,6-Trichlorophenol	230	U	ug/kg	230
2-Chloronaphthalene	230	U	ug/kg	230
Dimethylphthalate	230	U	ug/kg	230
Acenaphthylene	230	U	ug/kg	230
2,4-Dinitrophenol	230	U	ug/kg	230
3- & 4-Methylphenol (2)	230	U	ug/kg	230
4-Nitrophenol	230	U	ug/kg	230
2,4-Dinitrotoluene	230	U	ug/kg	230
Diethylphthalate	230	U	ug/kg	230
4-Chlorophenyl-phenylether	230	U	ug/kg	230
Fluorene	230	U	ug/kg	230
4,6-Dinitro-2-methylphenol	230	U	ug/kg	230
4-Bromophenyl-phenylether	230	U	ug/kg	230
Hexachlorobenzene	230	U	ug/kg	230
Pentachlorophenol	230	U	ug/kg	230
Phenanthrene	230	U	ug/kg	230
Pyrene	230	U	ug/kg	230
Anthracene	230	U	ug/kg	230
Acenaphthene	230	U	ug/kg	230
Di-n-butylphthalate	230	U	ug/kg	230
Fluoranthene	230	U	ug/kg	230
3,3-Dichlorobenzidine	930	U	ug/kg	930
Benzo (a) anthracene	230	U	ug/kg	230
Carbazole	230	U	ug/kg	230
Chrysene	230	U	ug/kg	230
bis(2-Ethylhexyl) phthalate	230	U	ug/kg	230
Di-n-octylphthalate	230	U	ug/kg	230
Benzo (b) fluoranthene	230	U	ug/kg	230
Benzo (k) fluoranthene	230	U	ug/kg	230
Benzo (a) pyrene	230	U	ug/kg	230
Indeno (1,2,3-cd) pyrene	230	U	ug/kg	230
Dibenzo (a,h) anthracene	230	U	ug/kg	230
Benzo (g,h,i) perylene	230	U	ug/kg	230
2,6-Dinitrotoluene	230	U	ug/kg	230
4-Chloroaniline	230	U	ug/kg	230
2-Nitroaniline	230	U	ug/kg	230
3-Nitroaniline	230	U	ug/kg	230
4-Nitroaniline	230	U	ug/kg	230
BRAC PESTICIDES/PCBS				
alpha-BHC	2.4	U	ug/kg	2.4
beta-BHC	2.4	U	ug/kg	2.4
gamma-BHC (Lindane)	2.3	U	ug/kg	2.3
Heptachlor	2.4	U	ug/kg	2.4
Aldrin	2.3	U	ug/kg	2.3
Heptachlor epoxide	2.3	U	ug/kg	2.3
Endosulfan I	2.4	U	ug/kg	2.4
Dieldrin	2.4	U	ug/kg	2.4
4,4-DDE	2.4	U	ug/kg	2.4
Endrin	2.4	U	ug/kg	2.4
Endosulfan II	2.4	U	ug/kg	2.4
4,4-DDD	2.3	U	ug/kg	2.3

NAS CECIL FIELD -- MAIN BASE OPEN AREA 7
 SEDIMENT -- ANALYTICAL DATA -- REQUEST NO. 10620

Lab Sample Number: JR38592
 Site: BRAC
 Locator: A8D00101
 Collect Date: 28-OCT-98

	VALUE	QUAL UNITS	DL
Endosulfan sulfate	2.3 U	ug/kg	2.3
4,4-DDT	2.4 U	ug/kg	2.4
Methoxychlor	4 U	ug/kg	4
Endrin ketone	2.3 U	ug/kg	2.3
Endrin aldehyde	2.3 U	ug/kg	2.3
alpha-Chlordane	2.3 U	ug/kg	2.3
gamma-Chlordane	2.4 U	ug/kg	2.4
Toxaphene	93 U	ug/kg	93
Aroclor-1221	46 U	ug/kg	46
Aroclor-1232	46 U	ug/kg	46
Aroclor-1248	46 U	ug/kg	46
Aroclor-1254	46 U	ug/kg	46
Aroclor-1260	46 U	ug/kg	46
Aroclor-1016/1242	46 U	ug/kg	46
CLP METALS AND CYANIDE			
Aluminum	360	mg/kg	28
Antimony	3 U	mg/kg	3
Arsenic	.7 U	mg/kg	.7
Barium	28 U	mg/kg	28
Beryllium	1 U	mg/kg	1
Cadmium	1 U	mg/kg	1
Calcium	83	mg/kg	35
Chromium	1 U	mg/kg	1
Cobalt	7 U	mg/kg	7
Copper	10	mg/kg	7
Iron	61	mg/kg	14
Lead	2.4	mg/kg	1
Magnesium	35 U	mg/kg	35
Manganese	1 U	mg/kg	1
Mercury	.01 U	mg/kg	.01
Nickel	7 U	mg/kg	7
Potassium	35 U	mg/kg	35
Selenium	3 U	mg/kg	3
Silver	3 U	mg/kg	3
Sodium	35 U	mg/kg	35
Thallium	1 U	mg/kg	1
Vanadium	1 U	mg/kg	1
Zinc	14	mg/kg	7
Cyanide	-		

U = NOT DETECTED J = ESTIMATED VALUE
 UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
 R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- MAIN BASE OPEN AREA 7
 SURFACE WATER -- ANALYTICAL DATA -- REQUEST NO. 10621

Lab Sample Number: JR38591
 Site: BRAC
 Locator: A8W00101
 Collect Date: 28-OCT-98

VALUE QUAL UNITS DL

BRAC VOLATILES

1,1,1-Trichloroethane	1 U	ug/l	1
1,1,2,2-Tetrachloroethane	1 U	ug/l	1
1,1,2-Trichloroethane	1 U	ug/l	1
1,1-Dichloroethane	1 U	ug/l	1
1,1-Dichloroethene	1 U	ug/l	1
1,2-Dichloroethane	1 U	ug/l	1
1,2-Dichloropropane	1 U	ug/l	1
Benzene	1 U	ug/l	1
Bromodichloromethane	1 U	ug/l	1
Bromoform	1 U	ug/l	1
Bromomethane	1 U	ug/l	1
Carbon tetrachloride	1 U	ug/l	1
Chlorobenzene	1 U	ug/l	1
Chloroethane	1 U	ug/l	1
Chloroform	1 U	ug/l	1
Chloromethane	1 U	ug/l	1
Dibromochloromethane	1 U	ug/l	1
Ethyl benzene	1 U	ug/l	1
Methyl chloride	1 U	ug/l	1
Tetrachloroethene	1 U	ug/l	1
Toluene	1 U	ug/l	1
Trichloroethene	1 U	ug/l	1
Vinyl chloride	1 U	ug/l	1
cis-1,3-Dichloropropene	1 U	ug/l	1
m,p-Xylene	1 U	ug/l	1
o-Xylene	1 U	ug/l	1
trans-1,2-Dichloroethene	1 U	ug/l	1
trans-1,3-Dichloropropene	1 U	ug/l	1

BRAC SEMIVOLATILES

Phenol	5 U	ug/l	5
bis(2-Chloroethyl)ether	5 U	ug/l	5
1,3-Dichlorobenzene	5 U	ug/l	5
1,4-Dichlorobenzene	5 U	ug/l	5
1,2-Dichlorobenzene	5 U	ug/l	5
N-Nitroso-di-n-propylamine	5 U	ug/l	5
Nitrobenzene	5 U	ug/l	5
Isophorone	5 U	ug/l	5
2-Methylphenol	5 U	ug/l	5
2-Nitrophenol	5 U	ug/l	5
2,4-Dimethylphenol	5 U	ug/l	5
bis(2-Chloroethoxy) methane	5 U	ug/l	5
2,4-Dichlorophenol	5 U	ug/l	5
1,2,4-Trichlorobenzene	5 U	ug/l	5
Naphthalene	5 U	ug/l	5
Hexachlorobutadiene	5 U	ug/l	5
Hexachlorocyclopentadiene	5 U	ug/l	5
Hexachloroethane	5 U	ug/l	5
4-Chloro-3-methylphenol	5 U	ug/l	5
2-Methylnaphthalene	5 U	ug/l	5

NAS CECIL FIELD -- MAIN BASE OPEN AREA 7
 SURFACE WATER -- ANALYTICAL DATA -- REQUEST NO. 10621

Lab Sample Number: JR38591
 Site: BRAC
 Locator: A8W00101
 Collect Date: 28-OCT-98

	VALUE	QUAL	UNITS	DL
2,4,6-Trichlorophenol	5	U	ug/l	5
2-Chloronaphthalene	5	U	ug/l	5
Dimethylphthalate	5	U	ug/l	5
Acenaphthylene	5	U	ug/l	5
2,4-Dinitrophenol	5	U	ug/l	5
3- & 4-Methylphenol (2)	5	U	ug/l	5
4-Nitrophenol	5	U	ug/l	5
2,4-Dinitrotoluene	5	U	ug/l	5
Diethylphthalate	5	U	ug/l	5
4-Chlorophenyl-phenylether	5	U	ug/l	5
Fluorene	5	U	ug/l	5
4,6-Dinitro-2-methylphenol	5	U	ug/l	5
4-Bromophenyl-phenylether	5	U	ug/l	5
Hexachlorobenzene	5	U	ug/l	5
Pentachlorophenol	5	U	ug/l	5
Phenanthrene	5	U	ug/l	5
Pyrene	5	U	ug/l	5
Anthracene	5	U	ug/l	5
Acenaphthene	5	U	ug/l	5
Di-n-butylphthalate	5	U	ug/l	5
Fluoranthene	5	U	ug/l	5
3,3-Dichlorobenzidine	20	U	ug/l	20
Benzo (a) anthracene	5	U	ug/l	5
Carbazole	5	U	ug/l	5
Chrysene	5	U	ug/l	5
bis(2-Ethylhexyl) phthalate	5	U	ug/l	5
Di-n-octylphthalate	5	U	ug/l	5
Benzo (b) fluoranthene	5	U	ug/l	5
Benzo (k) fluoranthene	5	U	ug/l	5
Benzo (a) pyrene	5	U	ug/l	5
Indeno (1,2,3-cd) pyrene	5	U	ug/l	5
Dibenzo (a,h) anthracene	5	U	ug/l	5
Benzo (g,h,i) perylene	5	U	ug/l	5
2,6-Dinitrotoluene	5	U	ug/l	5
4-Chloroaniline	5	U	ug/l	5
2-Nitroaniline	5	U	ug/l	5
3-Nitroaniline	5	U	ug/l	5
4-Nitroaniline	5	U	ug/l	5
BRAC PESTICIDES/PCBS				
alpha-BHC	.05	U	ug/l	.05
beta-BHC	.05	U	ug/l	.05
gamma-BHC (Lindane)	.05	U	ug/l	.05
Heptachlor	.05	U	ug/l	.05
Aldrin	.05	U	ug/l	.05
Heptachlor epoxide	.05	U	ug/l	.05
Endosulfan I	.05	U	ug/l	.05
Dieldrin	.05	U	ug/l	.05
4,4-DDE	.05	U	ug/l	.05
Endrin	.05	U	ug/l	.05
Endosulfan II	.05	U	ug/l	.05
4,4-DDD	.05	U	ug/l	.05

NAS CECIL FIELD -- MAIN BASE OPEN AREA 7
 SURFACE WATER -- ANALYTICAL DATA -- REQUEST NO. 10621

Lab Sample Number: JR38591
 Site: BRAC
 Locator: A8W00101
 Collect Date: 28-OCT-98

	VALUE	QUAL	UNITS	DL
Endosulfan sulfate	.05	U	ug/l	.05
4,4-DDT	.05	U	ug/l	.05
Methoxychlor	.1	U	ug/l	.1
Endrin ketone	.05	U	ug/l	.05
Endrin aldehyde	.05	U	ug/l	.05
alpha-Chlordane	1	U	ug/l	1
gamma-Chlordane	1	U	ug/l	1
Toxaphene	2	U	ug/l	2
Aroclor-1221	1	U	ug/l	1
Aroclor-1232	1	U	ug/l	1
Aroclor-1248	1	U	ug/l	1
Aroclor-1254	1	U	ug/l	1
Aroclor-1260	1	U	ug/l	1
Aroclor-1016/1242	1	U	ug/l	1
CLP METALS AND CYANIDE				
Aluminum	.5		mg/l	.05
Antimony	.005	U	mg/l	.005
Arsenic	.01	U	mg/l	.01
Barium	.1	U	mg/l	.1
Beryllium	.001	U	mg/l	.001
Cadmium	.001	U	mg/l	.001
Calcium	.66		mg/l	.5
Chromium	.01	U	mg/l	.01
Cobalt	.05	U	mg/l	.05
Copper	.05	U	mg/l	.05
Iron	3.2		mg/l	.05
Lead	.005	U	mg/l	.005
Magnesium	.5	U	mg/l	.5
Manganese	.01	U	mg/l	.01
Mercury	.0002	U	mg/l	.0002
Nickel	.01	U	mg/l	.01
Potassium	.5	U	mg/l	.5
Selenium	.01	U	mg/l	.01
Silver	.01	U	mg/l	.01
Sodium	4.9		mg/l	.5
Thallium	.002	U	mg/l	.002
Vanadium	.01	U	mg/l	.01
Zinc	.1	U	mg/l	.1
Cyanide	-			

U = NOT DETECTED J = ESTIMATED VALUE
 UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
 R = RESULT IS REJECTED AND UNUSABLE