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NAS CECIL FIELD
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SAMPLING AND ANALYSIS REPORT FACILITY 241 BASE REALIGNMENT AND CLOSURE ZONE D INDUSTRIAL AND FLIGHT LINE AREA NAS CECIL FIELD FL

3/1/1999

HARDING LAWSON ASSOCIATES

SAMPLING AND ANALYSIS REPORT

FACILITY 241

BASE REALIGNMENT AND CLOSURE

ZONE D, INDUSTRIAL AND FLIGHT LINE AREA

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Unit Identification Code: N60200

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Base Realignment and Closure
Zone D, Industrial and Flight Line Area
Naval Air Station Cecil Field, Jacksonville, Florida

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GLOSSARY

ABB-ES	ABB Environmental Services, Inc.
BRAC	Base Realignment and Closure (Act)
EBS	environmental baseline survey
ELCR	excess lifetime cancer risk
FDEP	Florida Department of Environmental Protection
GCTL	groundwater cleanup target level
HI	hazard index
HLA	Harding Lawson Associates
HQ	hazard quotient
NAS	Naval Air Station
PRE	preliminary risk evaluation
RBC	risk-based concentration
SAO	sampling and analysis outline
SCTL	soil cleanup target level
TRPH	total recoverable petroleum hydrocarbons
USEPA	U.S. Environmental Protection Agency

1.0 INTRODUCTION

Harding Lawson Associates (HLA), under contract to Southern Division, Naval Facilities Engineering Command, has completed the Phase II Sampling and Analysis program for Facility 241 at Naval Air Station (NAS) Cecil Field. This report summarizes the related field operations, results, conclusions, and recommendations.

Facility 241 is referred to as an air compressor building in the Base Realignment and Closure (Act) (BRAC) NAS Cecil Field Environmental Baseline Survey (EBS) Report (ABB Environmental Services, Inc. [ABB-ES], 1994a). Facility 241 located at the southeast corner of the intersection of 5th Street and Jet Road (Figure 1). The facility was color-coded Red in the EBS Report (ABB-ES, 1994a) due to observed releases of compressor oil within the building and release of oil-laden condensate on the south side of the building.

A floor drain within the building is reportedly connected to the storm water drainage ditch along the east side of Jet Road. The facility drawings reviewed do not clearly indicate whether or not the floor drains discharge to the storm water drainage system or to the sanitary sewer system, and Facility 241 was not addressed in the Illicit Discharge Report (Ogden, 1996).

Oil-laden condensate for the compressed air system was formerly routed to two concrete pits on the south side of the building. The pits appear to be designed to allow infiltration. Condensate was being collected in 55-gallon drums at the time of the EBS. Surface soil surrounding the concrete pits was described as being saturated with oil. The observations noted in the EBS Report were confirmed during an HLA follow-up reconnaissance in January 1996. This release was identified as an environmental concern for the property.

A Sampling and Analysis Outline (SAO) for the assessment of surface soil and groundwater at Facility 241 was prepared by HLA (then ABB-ES) and approved by the BRAC cleanup team (ABB-ES, 1997). The results of the sampling and analysis program are discussed in Chapters 2.0 and 3.0. NAS Cecil Field has a decontamination and closure procedure for all facilities to be undertaken prior to lease or transfer. Therefore, the oil-stained floor within Facility 241 was not evaluated for potential contaminants.

2.0 PHASE II INVESTIGATION

Contaminated surface soil surrounding the condensate discharge locations was excavated and removed from the site prior to the soil sampling event. No record of the soil removal action or disposition of excavated soils was provided. The sampling strategy was modified to determine whether or not subsurface soils in the condensate discharge area have been impacted.

Subsurface soil samples were collected from the area beneath the condensate discharge and between the compressed air tanks and the drainage swale. Both samples were collected from the interval directly overlying the groundwater table. One surface soil sample was collected from the drainage swale between

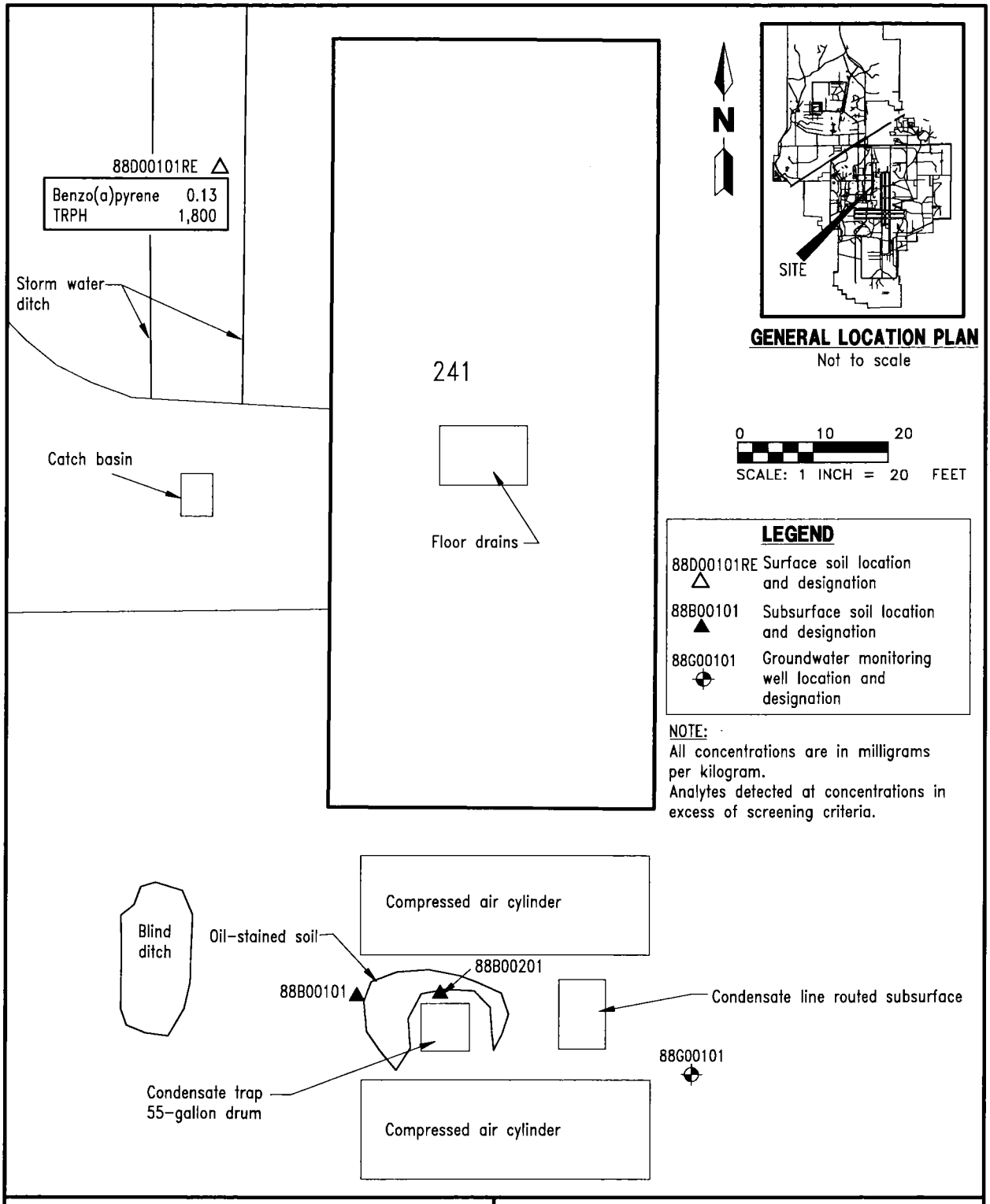

FIGURE 1
FACILITY 241
AIR COMPRESSOR FACILITY
SAMPLE LOCATIONS

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SAMPLING AND ANALYSIS REPORT

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Facility 241 and Jet Road. One groundwater monitoring well was installed downgradient (east) of the condensate discharge area at Facility 241. The well was completed at a depth of 16 feet below land surface. The groundwater flow direction in this area is likely to be east-southeast, based on the groundwater flow model produced for NAS Cecil Field by the U.S. Geological Survey. One groundwater sample was collected from the monitoring well. Field activities were undertaken in general conformance with the Project Operations Plan (ABB-ES, 1994b).

All samples were analyzed for the full Contract Laboratory Program suite of target compound list organics and target analyte list inorganics. A site plan indicating the location of the monitoring well and soil sample locations is presented on Figure 1.

3.0 PRELIMINARY RISK EVALUATION

A preliminary risk evaluation (PRE) was conducted to assess potential risks to human and ecological receptors posed by contaminants in soil or groundwater. Primary exposure pathways were evaluated to determine those pathways that potentially contribute to human health and ecological risks. The evaluation was conducted in general conformance with methodology provided in the U.S. Environmental Protection Agency (USEPA) Region IV memorandum entitled "Amended Guidance on Preliminary Risk Evaluations (PREs) for the Purpose of Reaching a Finding of Suitability to Lease (FOSL) (USEPA, 1994a), 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 (FDEP) concerning PREs (ABB-ES, 1995a). Site background information and rationale for sample collection and analysis are detailed in the EBS Report (ABB-ES, 1994a) and the SAO (ABB-ES, 1997).

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 below NAS Cecil Field screening criteria for inorganics.

3.1 PUBLIC HEALTH PRE. All detected analytes were compared to readily available risk-based screening values to assess the likelihood of adverse human health effects associated with potential exposure to groundwater or surface soil. Risk-based screening values were obtained from USEPA Region III Risk-Based Concentrations (RBCs) (USEPA, 1996) and FDEP Cleanup Target Levels (FDEP, 1998). Most screening values published in the references listed above are based on toxicity constants and standard human exposure scenarios and correspond to fixed levels of risk. The designated level of risk for noncarcinogenic chemicals is based on a hazard quotient (HQ) of 1. The level of risk for carcinogenic chemicals is based on an excess lifetime cancer risk (ELCR) of 1×10^{-6}. Cancer and noncancer risks associated with industrial and residential land use are estimated by dividing the maximum detected analyte concentration by the

corresponding USEPA Region III RBC value at the designated level of risk (ELCR of 1×10^{-6} or HQ of 1, respectively). For noncarcinogens, the HQs are summed to determine the cumulative noncancer risk or hazard index (HI).

3.1.1 Surface Soil Eleven semivolatile organic compounds, 6 pesticide compounds, and 17 inorganic analytes were detected in the surface soil sample collected from the drainage swale west of Facility 241. Benzo(a)pyrene was detected at a concentration in excess of the Florida soil cleanup target level (SCTL). The detected concentration of total recoverable petroleum hydrocarbons (TRPH) was also in excess of the SCTL. No other compounds were detected at concentrations in excess of screening criteria.

Concentrations of detected analytes in surface soil have been compared with RBCs and SCTLs and, where applicable, with NAS Cecil Field Inorganic Background Data Set (see Appendix A). Benzo(a)pyrene and TRPH were detected at concentrations in excess of SCTLs. An ELCR of 1.3x10-6 was calculated in association with a potential residential surface soil exposure scenario.

3.1.2 Subsurface Soil Two volatile organic compounds and nine inorganic analytes were detected in subsurface soil samples collected in the vicinity of the former condensate discharge area. No compounds were detected at concentrations in excess of soil screening criteria.

3.1.3 Groundwater Nine inorganic analytes were detected in the groundwater sample collected in the study area. No analytes were detected at concentrations in excess of the NAS Cecil Field screening criteria for inorganics. No organic compounds were detected in groundwater.

Concentrations of detected analytes in groundwater have been compared with RBCs for tap water and groundwater cleanup target levels (GCTLs) and, where applicable, with NAS Cecil Field Inorganic Background Data Set (see Appendix A). No compounds or analytes were detected at concentrations in excess of GCTLs. Therefore, no HI or ELCR was calculated in association with a potential groundwater exposure scenario.

3.2 ECOLOGICAL PRE. An ecological PRE was conducted to evaluate potential risks to ecological receptors in the vicinity of Facility 241. Exposure pathways and ecological habitats were characterized during a site walkover conducted by HLA ecological risk assessors in September 1995. The methods and assumptions used in derivation of ecological screening values applied in this evaluation are presented in the Project Operations Plan (ABB-ES, 1994b).

Facility 241 is located in a developed area that is subject to frequent jet aircraft traffic. Ecological habitat is limited to maintained grass surrounding the building. The drainage swale west of Facility 241 does not normally contain surface water. Pathways of potential contaminant exposure at Facility 241 for wildlife receptors include direct contact, incidental ingestion of surface soil, and limited terrestrial food-web model exposure to contaminants in surface soil that may bioaccumulate. No exposure pathway from groundwater to surface water was identified in the study area, and the terrestrial habitat is of limited significance. Therefore, no further ecological risk evaluation was conducted.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the information obtained for this assessment, the concentration of benzo(a)pyrene in surface soil within the drainage swale west of Facility 241 may represent a potential hazard to human health. Additional samples should be collected to delineate the extent of contaminants, and prepare a plan for a removal action. Therefore, the color classification for Facility 241 should be changed to 5/Yellow to indicate that remedial action is in progress and should not be changed until such remedial action has been completed .

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APPENDIX A

PRELIMINARY RISK EVALUATION TABLES

Preliminary Human Health Risk Evaluation Table for Analytes Detected in Groundwater
Facility 241, Naval Air Station Cecil Field

Analyte[1]	Samples	Screening Values			Calculated Risk Values[2]	
	88G00101	BKGRD	GCTL	RBC(T)	ELCR	HQ
Aluminum	1090	13100	200	37000 n		
Barium	5.1	88.2	2000	2600 n		
Calcium	22500	81100				
Cobalt	1.2	12.8	420	2200 n		
Iron	649	7760	300	11000 n		
Magnesium	3130	10000				
Manganese	6.6	96.2	50	840 n		
Potassium	1630	4330				
Sodium	5440	16500	160000			
Thallium	4	13.3	2	2.9 n		
Vanadium	4.2	20.2	49	260 n		
Zinc	9.2	76.8	5000	11000 n		

Notes:

[1] All detected analytes are reported. Concentrations and screening values are expressed in ug/l

[2]ELCR and HQ are only calculated for analytes detected at concentrations in excess of BKGRD and GWCTL

* = Background screening criteria or GWCTLs have been exceeded

BKGRD = NAS Cecil Field Inorganic Background Data Set

GCTL = Groundwater Cleanup Target Levels, FDEP, Chapter 62-785, Florida Administrative Code

RBC(T) = Risk-based Concentration (Tap Water), USEPA Region III, April 1998

n = non-carcinogenic risk

c = carcinogenic risk

ELCR = calculated excess lifetime cancer risk, based on RBC(T) values.

(ELCR = maximum detected concentration/RBC(T) * 1E-06)

HQ = calculated Hazard Quotient for non-carcinogenic analytes

(HQ = maximum detected concentration/RBC(T))

Preliminary Human Health Risk Evaluation Table for Analytes Detected in Surface Soil
Facility 241, Naval Air Station Cecil Field

Analyte[1]	Samples		Screening Values			Calculated Risk Values[2]	
	88S00101	88D00101	BKGRD	SCTL	RBC(R)	ELCR	HQ
Benzo (a) anthracene		0.13		1.4	0.88 c		
*Benzo (a) pyrene		0.13		0.1	0.088 c	1.E-06	
Benzo (b) fluoranthene		0.2		1.4	0.88 c		
Benzo (g,h,i) perylene		0.077		2300			
Benzo (k) fluoranthene		0.076		15	8.8 c		
Chrysene		0.15		140	88 c		
Fluoranthene		0.25		2800	3100 n		
Indeno (1,2,3-cd) pyrene		0.088		1.5	0.88 c		
Phenanthrene		0.18		1900			
Pyrene		0.37		2200	2300 n		
bis(2-Ethylhexyl) phthalate	0.046	0.079		75	46 c		
4,4-DDD		0.0066		4.5	2.7 c		
4,4-DDE		0.00052		3.2	1.9 c		
4,4-DDT	0.00052			3.2	1.9 c		
Methoxychlor	0.012			380	390 n		
alpha-Chlordane		0.00061		3	0.49 c		
gamma-Chlordane		0.00092		3	1.8 c		
Aluminum	1570	934	4432.5	72000	78000 n		
Barium	3.2	7.8	14.4	105	5500 n		
Cadmium		1.3	1.715	75	39 n		
Calcium	3820	2060	9.44				
Chromium	4.1	5.2	7.75	290	390 n		
Copper	3	19.3	5.965	390	3100 n		
Iron	376	494	1486	23000	23000 n		
Lead	12.1	54.5	196.9	500			
Magnesium	117	118	328.65				
Manganese	6.8	5.5	21.95	1600	1600 n		
Mercury		0.1	0.16	3.7	23 n		
Nickel	0.77	1.5	3.89	105	1600 n		
Potassium	16.6	13.7	101.8				
Sodium	31.9	39.5	343				
Thallium	0.88		2.84				
Vanadium	1.5	2.3	6.3	15	550 n		
Zinc	8.1	47.7	36.5	23000	23000 n		
*Total petroleum hydrocarbons	73	1800		350			
					Sum=	1.E-06	

Notes:

[1] All detected analytes are reported. Concentrations and screening values are expressed in mg/kg

[2] ELCR and HQ are only calculated for analytes detected at concentrations in excess of BKGRD and SCTL

* = Background screening criteria or SCTLs have been exeeded

BKGRD = NAS Cecil Field Inorganic Background Data Set

SCTL = Soil Cleanup Target Level, Chapter 62-785, Florida Administrative Code

RBC(R) = Risk-based Concentration (Residential), USEPA Region III, April 1998

c = carcinogenic risk

n = non-carcinogenic risk

ELCR = calculated excess lifetime cancer risk, based on RBC(R) values. (ELCR = detected concentration/RBC(R) * 1 E-06)

HQ = calculated Hazard Quotient for non-carcinogenic analytes (HQ = detected concentration/RBC(R))

Preliminary Human Health Risk Evaluation Table for Analytes Detected in Subsurface Soil
Facility 241, Naval Air Station Cecil Field

Analyte[1]	Samples		Screening Values			Calculated Risk Values[2]	
	88B00101	88B00201	BKGRD	SCTL	RBC(R)	ELCR	HQ
2-Butanone	0.016			4800	47000000 n		
Acetone	0.031			770	7800000 n		
Aluminum	2300	2800	4432.5	72000	78000 n		
Calcium	1100	1700	9.44				
Chromium	3	3	7.75	290	390 n		
Iron	21	310	1486	23000	23000 n		
Lead	5.2	10	196.9	500			
Magnesium	68	88	328.65				
Manganese		2	21.95	1600	1600 n		
Mercury	0.03		0.16	3.7	23 n		
Vanadium		1	6.3	15	550 n		

Notes:

[1] All detected analytes are reported. Concentrations and screening values are expressed in mg/kg

[2]ELCR and HQ are only calculated for analytes detected at concentrations in excess of BKGRD and SCTL

* = Background screening criteria or SCTLs have been exeeded

BKGRD = NAS Cecil Field Inorganic Background Data Set

SCTL = Soil Cleanup Target Level, Chapter 62-785, Florida Administrative Code

RBC(R) = Risk-based Concentration (Residential), USEPA Region III, April 1998

c = carcinogenic risk

n = non-carcinogenic risk

ELCR = calculated excess lifetime cancer risk, based on RBC(R) values. (ELCR = detected concentration/RBC(R) * 1 E-06)

HQ = calculated Hazard Quotient for non-carcinogenic analytes (HQ = detected concentration/RBC(R))

APPENDIX B

LABORATORY ANALYTICAL DATA

NAS CECIL FIELD -- FACILITY 241
SURFACE SOIL AND SEDIMENT -- VOLATILES -- REQUEST NO. 10843

Lab Sample Number:	C832J				C832H			
Site	CECILBRAC3				CECILBRAC3			
Locator	88S00101				88D00101			
Collect Date:	08-FEB-97				08-FEB-97			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW								
Chloromethane	11	U	ug/kg	11	12	U	ug/kg	12
Bromomethane	11	U	ug/kg	11	12	U	ug/kg	12
Vinyl chloride	11	U	ug/kg	11	12	U	ug/kg	12
Chloroethane	11	U	ug/kg	11	12	U	ug/kg	12
Methylene chloride	11	U	ug/kg	11	12	U	ug/kg	12
Acetone	11	U	ug/kg	11	12	U	ug/kg	12
Carbon disulfide	11	U	ug/kg	11	12	U	ug/kg	12
1,1-Dichloroethene	11	U	ug/kg	11	12	U	ug/kg	12
1,1-Dichloroethane	11	U	ug/kg	11	12	U	ug/kg	12
1,2-Dichloroethene (total)	11	U	ug/kg	11	12	U	ug/kg	12
Chloroform	11	U	ug/kg	11	12	U	ug/kg	12
1,2-Dichloroethane	11	U	ug/kg	11	12	U	ug/kg	12
2-Butanone	11	U	ug/kg	11	12	U	ug/kg	12
1,1,1-Trichloroethane	11	U	ug/kg	11	12	U	ug/kg	12
Carbon tetrachloride	11	U	ug/kg	11	12	U	ug/kg	12
Bromodichloromethane	11	U	ug/kg	11	12	U	ug/kg	12
1,2-Dichloropropane	11	U	ug/kg	11	12	U	ug/kg	12
cis-1,3-Dichloropropene	11	U	ug/kg	11	12	U	ug/kg	12
Trichloroethene	11	U	ug/kg	11	12	U	ug/kg	12
Dibromochloromethane	11	U	ug/kg	11	12	U	ug/kg	12
1,1,2-Trichloroethane	11	U	ug/kg	11	12	U	ug/kg	12
Benzene	11	U	ug/kg	11	12	U	ug/kg	12
trans-1,3-Dichloropropene	11	U	ug/kg	11	12	U	ug/kg	12
Bromoform	11	U	ug/kg	11	12	U	ug/kg	12
4-Methyl-2-pentanone	11	U	ug/kg	11	12	U	ug/kg	12
2-Hexanone	11	U	ug/kg	11	12	U	ug/kg	12
Tetrachloroethene	11	U	ug/kg	11	12	U	ug/kg	12
Toluene	11	U	ug/kg	11	12	U	ug/kg	12
1,1,2,2-Tetrachloroethane	11	U	ug/kg	11	12	U	ug/kg	12
Chlorobenzene	11	U	ug/kg	11	12	U	ug/kg	12
Ethylbenzene	11	U	ug/kg	11	12	U	ug/kg	12
Styrene	11	U	ug/kg	11	12	U	ug/kg	12
Xylenes (total)	11	U	ug/kg	11	12	U	ug/kg	12

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

NAS CECIL FIELD -- FACILITY 241
SURFACE SOIL AND SEDIMENT -- SEMIVOLATILES -- REQUEST NO. 10844

	C832J				C832H				C832HRE			
Lab Sample Number:												
Site	CECILBRAC3				CECILBRAC3				CECILBRAC3			
Locator	88S00101				88D00101				88D00101RE			
Collect Date:	08-FEB-97				08-FEB-97				08-FEB-97			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW												
Phenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
bis(2-Chloroethyl) ether	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2-Chlorophenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
1,3-Dichlorobenzene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
1,4-Dichlorobenzene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
1,2-Dichlorobenzene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2-Methylphenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,2-oxybis(1-Chloropropane)	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
4-Methylphenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
N-Nitroso-di-n-propylamine	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Hexachloroethane	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Nitrobenzene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Isophorone	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2-Nitrophenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,4-Dimethylphenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
bis(2-Chloroethoxy) methane	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,4-Dichlorophenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
1,2,4-Trichlorobenzene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Naphthalene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
4-Chloroaniline	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Hexachlorobutadiene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
4-Chloro-3-methylphenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2-Methylnaphthalene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Hexachlorocyclopentadiene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,4,6-Trichlorophenol	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,4,5-Trichlorophenol	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
2-Chloronaphthalene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2-Nitroaniline	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
Dimethylphthalate	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Acenaphthylene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,6-Dinitrotoluene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
3-Nitroaniline	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
Acenaphthene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,4-Dinitrophenol	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
4-Nitrophenol	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
Dibenzofuran	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
2,4-Dinitrotoluene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Diethylphthalate	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
4-Chlorophenyl-phenylether	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Fluorene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
4-Nitroaniline	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
4,6-Dinitro-2-methylphenol	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
N-Nitrosodiphenylamine	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
4-Bromophenyl-phenylether	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Hexachlorobenzene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Pentachlorophenol	870	U	ug/kg	870	970	U	ug/kg	970	970	U	ug/kg	970
Phenanthrene	360	U	ug/kg	360	180	J	ug/kg	400	180	J	ug/kg	400
Anthracene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Carbazole	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Di-n-butylphthalate	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400

NAS CECIL FIELD -- FACILITY 241
SURFACE SOIL AND SEDIMENT -- SEMIVOLATILES -- REQUEST NO. 10844

Lab Sample Number:	C832J				C832H				C832HRE			
Site	CECILBRAC3				CECILBRAC3				CECILBRAC3			
Locator	88S00101				88D00101				88D00101RE			
Collect Date:	08-FEB-97				08-FEB-97				08-FEB-97			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Fluoranthene	360	U	ug/kg	360	240	J	ug/kg	400	250	J	ug/kg	400
Pyrene	360	U	ug/kg	360	330	J	ug/kg	400	370	J	ug/kg	400
Butylbenzylphthalate	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
3,3-Dichlorobenzidine	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Benzo (a) anthracene	360	U	ug/kg	360	120	J	ug/kg	400	130	J	ug/kg	400
Chrysene	360	U	ug/kg	360	140	J	ug/kg	400	150	J	ug/kg	400
bis(2-Ethylhexyl) phthalate	46	J	ug/kg	360	69	J	ug/kg	400	79	J	ug/kg	400
Di-n-octylphthalate	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Benzo (b) fluoranthene	360	U	ug/kg	360	200	J	ug/kg	400	200	J	ug/kg	400
Benzo (k) fluoranthene	360	U	ug/kg	360	76	J	ug/kg	400	76	J	ug/kg	400
Benzo (a) pyrene	360	U	ug/kg	360	130	J	ug/kg	400	130	J	ug/kg	400
Indeno (1,2,3-cd) pyrene	360	U	ug/kg	360	74	J	ug/kg	400	88	J	ug/kg	400
Dibenzo (a,h) anthracene	360	U	ug/kg	360	400	U	ug/kg	400	400	U	ug/kg	400
Benzo (g,h,i) perylene	360	U	ug/kg	360	58	J	ug/kg	400	77	J	ug/kg	400

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

NAS CECIL FIELD -- FACILITY 241
SURFACE SOIL AND SEDIMENT -- PESTICIDES AND PCBs -- REQUEST NO. 10845

Lab Sample Number:	C832J				C832H				
Site	CECILBRAC3				CECILBRAC3				
Locator	88S00101				88D00101				
Collect Date:	07-FEB-97				07-FEB-97				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	
CLP PESTICIDES/PCBS 90-SOW									
alpha-BHC	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
beta-BHC	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
delta-BHC	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
gamma-BHC (Lindane)	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
Heptachlor	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
Aldrin	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
Heptachlor epoxide	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
Endosulfan I	1.8	U	ug/kg	1.8	2	U	ug/kg	2	
Dieldrin	3.6	U	ug/kg	3.6	4	U	ug/kg	4	
4,4-DDE	3.6	U	ug/kg	3.6	.52	J	ug/kg	4	
Endrin	3.6	U	ug/kg	3.6	4	U	ug/kg	4	
Endosulfan II	3.6	U	ug/kg	3.6	4	U	ug/kg	4	
4,4-DDD	3.6	U	ug/kg	3.6	6.6	J	ug/kg	4	
Endosulfan sulfate	3.6	U	ug/kg	3.6	4	U	ug/kg	4	
4,4-DDT	.52	J	ug/kg	4	4	U	ug/kg	4	
Methoxychlor	12	J	ug/kg	18	20	U	ug/kg	20	
Endrin ketone	3.6	U	ug/kg	3.6	4	U	ug/kg	4	
Endrin aldehyde	3.6	U	ug/kg	3.6	4	U	ug/kg	4	
alpha-Chlordane	1.8	U	ug/kg	1.8	.61	J	ug/kg	2	
gamma-Chlordane	1.8	U	ug/kg	1.8	.92	J	ug/kg	2	
Toxaphene	180	U	ug/kg	180	200	U	ug/kg	200	
Aroclor-1016	36	U	ug/kg	36	40	U	ug/kg	40	
Aroclor-1221	72	U	ug/kg	72	81	U	ug/kg	81	
Aroclor-1232	36	U	ug/kg	36	40	U	ug/kg	40	
Aroclor-1242	36	U	ug/kg	36	40	U	ug/kg	40	
Aroclor-1248	36	U	ug/kg	36	40	U	ug/kg	40	
Aroclor-1254	36	U	ug/kg	36	40	U	ug/kg	40	
Aroclor-1260	36	U	ug/kg	36	40	U	ug/kg	40	

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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- FACILITY 241
SURFACE SOIL AND SEDIMENT -- INORGANICS -- REQUEST NO. 10846

Lab Sample Number:	C832J				C832H				
Site	CECILBRAC3				CECILBRAC3				
Locator	88S00101				88D00101				
Collect Date:	08-FEB-97				08-FEB-97				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE								
Aluminum	1570		mg/kg	40	934		mg/kg	40
Antimony	.66	U	mg/kg	12	.73	U	mg/kg	12
Arsenic	.44	U	mg/kg	2	.49	U	mg/kg	2
Barium	3.2	J	mg/kg	40	7.8	J	mg/kg	40
Beryllium	.22	U	mg/kg	1	.24	U	mg/kg	1
Cadmium	.22	U	mg/kg	1	1.3		mg/kg	1
Calcium	3820		mg/kg	1000	2060		mg/kg	1000
Chromium	4.1		mg/kg	2	5.2		mg/kg	2
Cobalt	.22	U	mg/kg	10	.24	U	mg/kg	10
Copper	3	J	mg/kg	5	19.3		mg/kg	5
Iron	376		mg/kg	20	494		mg/kg	20
Lead	12.1		mg/kg	.6	54.5		mg/kg	.6
Magnesium	117	J	mg/kg	1000	118	J	mg/kg	1000
Manganese	6.8		mg/kg	3	5.5		mg/kg	3
Mercury	.05	U	mg/kg	.1	.1	J	mg/kg	.1
Nickel	.77	J	mg/kg	8	1.5	J	mg/kg	8
Potassium	16.6	J	mg/kg	1000	13.7	J	mg/kg	1000
Selenium	.87	U	mg/kg	1	.97	U	mg/kg	1
Silver	.22	U	mg/kg	2	.24	U	mg/kg	2
Sodium	31.9	J	mg/kg	1000	39.5	J	mg/kg	1000
Thallium	.88	J	mg/kg	2	.73	U	mg/kg	2
Vanadium	1.5	J	mg/kg	10	2.3	J	mg/kg	10
Zinc	8.1		mg/kg	4	47.7		mg/kg	4
Cyanide	.06	U	mg/kg	.5	.07	U	mg/kg	.5

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NAS CECIL FIELD -- FACILITY 241
SURFACE SOIL AND SEDIMENT -- TPH -- REQUEST NO. 10847

Lab Sample Number:	A7B0801150				A7B0801150			
Site	CECILBRAC3				CECILBRAC3			
Locator	88S00101				88D00101			
Collect Date:	07-FEB-97				07-FEB-97			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
TPH								
Total petroleum hydrocarbons	73		mg/kg	11	1800		mg/kg	120

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R = RESULT IS REJECTED AND UNUSABLE

NAS CECIL FIELD -- FACILITY 241
SUBSURFACE SOIL -- VOLATILES -- REQUEST NO. 10839

Lab Sample Number:	JR75551			JR75558			JR33831					
Site	BRAC			BRAC			BRAC					
Locator	88B00101			88B00101D			88B00201					
Collect Date:	09-OCT-97			09-OCT-97			25-SEP-98					
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BRAC VOLATILES												
1,1,1-Trichloroethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
1,1,2,2-Tetrachloroethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
1,1,2-Trichloroethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
1,1-Dichloroethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
1,1-Dichloroethene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
1,2-Dichloroethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
1,2-Dichloropropane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Benzene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Bromodichloromethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Bromoform	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Bromomethane	13	U	ug/Kg	13	13	U	ug/Kg	13	14	U	ug/kg	14
Carbon tetrachloride	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Chlorobenzene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Chloroethane	13	U	ug/Kg	13	13	U	ug/Kg	13	14	U	ug/kg	14
Chloroform	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Chloromethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Dibromochloromethane	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Ethyl benzene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Methylene chloride	20	U	ug/Kg	20	20	U	ug/Kg	20	21	U	ug/kg	21
Tetrachloroethene	20	U	ug/Kg	20	20	U	ug/Kg	20	21	U	ug/kg	21
Toluene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Trichloroethene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
Vinyl chloride	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
cis-1,3-Dichloropropene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
m,p-Xylene	13	U	ug/Kg	13	13	U	ug/Kg	13	14	U	ug/kg	14
o-Xylene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
trans-1,2-Dichloroethene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7
trans-1,3-Dichloropropene	7	U	ug/Kg	7	7	U	ug/Kg	7	7	U	ug/kg	7

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NAS CECIL FIELD -- FACILITY 241
SUBSURFACE SOIL -- SEMIVOLATILES -- REQUEST NO. 10840

Lab Sample Number:	JR75551			JR75558			JR33831		
Site	BRAC			BRAC			BRAC		
Locator	88B00101			88B00101D			88B00201		
Collect Date:	09-OCT-97			09-OCT-97			25-SEP-98		
	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL	VALUE QUAL	UNITS	DL
BRAC SEMIVOLATILES									
Phenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
bis(2-Chloroethyl)ether	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
1,3-Dichlorobenzene	440 U	ug/Kg	440	440 U	ug/Kg	440	7 U	ug/kg	7
1,4-Dichlorobenzene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
1,2-Dichlorobenzene	440 U	ug/Kg	440	440 U	ug/Kg	440	7 U	ug/kg	7
N-Nitroso-di-n-propylamine	440 U	ug/Kg	440	-			460 U	ug/kg	460
Nitrobenzene	440 U	ug/Kg	440	-			460 U	ug/kg	460
Isophorone	440 U	ug/Kg	440	-			460 U	ug/kg	460
2-Methylphenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
2-Nitrophenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
2,4-Dimethylphenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
bis(2-Chloroethoxy) methane	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
2,4-Dichlorophenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
1,2,4-Trichlorobenzene	440 U	ug/Kg	440	-			7 U	ug/kg	7
Naphthalene	440 U	ug/Kg	440	-			14 U	ug/kg	14
Hexachlorobutadiene	440 U	ug/Kg	440	440 U	ug/Kg	440	7 U	ug/kg	7
Hexachlorocyclopentadiene	440 U	ug/Kg	440	-			460 U	ug/kg	460
Hexachloroethane	440 U	ug/Kg	440	-			460 U	ug/kg	460
4-Chloro-3-methylphenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
2-Methylnaphthalene	440 U	ug/Kg	440	-			460 U	ug/kg	460
2,4,6-Trichlorophenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
2-Chloronaphthalene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Dimethylphthalate	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Acenaphthylene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
2,4-Dinitrophenol	2200 U	ug/Kg	2200	-			2300 U	ug/kg	2300
3- & 4-Methylphenol (2)	440 U	ug/Kg	440	-			460 U	ug/kg	460
4-Nitrophenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
2,4-Dinitrotoluene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Diethylphthalate	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
4-Chlorophenyl-phenylether	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Fluorene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
4,6-Dinitro-2-methylphenol	1300 U	ug/Kg	1300	-			1400 U	ug/kg	1400
4-Bromophenyl-phenylether	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Hexachlorobenzene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Pentachlorophenol	440 U	ug/Kg	440	-			460 U	ug/kg	460
Phenanthrene	440 U	ug/Kg	440	-			460 U	ug/kg	460
Pyrene	440 U	ug/Kg	440	-			460 U	ug/kg	460
Anthracene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Acenaphthene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Di-n-butylphthalate	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Fluoranthene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
3,3-Dichlorobenzidine	890 U	ug/Kg	890	890 U	ug/Kg	890	920 U	ug/kg	920
Benzo (a) anthracene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Carbazole	440 U	ug/Kg	440	440 U	ug/Kg	440	-		
Chrysene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
bis(2-Ethylhexyl) phthalate	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Di-n-octylphthalate	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Benzo (b) fluoranthene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Benzo (k) fluoranthene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460
Benzo (a) pyrene	440 U	ug/Kg	440	440 U	ug/Kg	440	460 U	ug/kg	460

NAS CECIL FIELD -- FACILITY 241
SUBSURFACE SOIL -- SEMIVOLATILES -- REQUEST NO. 10840

Lab Sample Number:		JR75551				JR75558				JR33831				
Site		BRAC				BRAC				BRAC				
Locator		88B00101				88B00101D				88B00201				
Collect Date:		09-OCT-97				09-OCT-97				25-SEP-98				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL		
Indeno (1,2,3-cd) pyrene	440	U	ug/Kg	440	-				460	U	ug/kg	460		
Dibenzo (a,h) anthracene	440	U	ug/Kg	440	440	U	ug/Kg	440	460	U	ug/kg	460		
Benzo (g,h,i) perylene	440	U	ug/Kg	440	440	U	ug/Kg	440	460	U	ug/kg	460		
2,6-Dinitrotoluene	440	U	ug/Kg	440	440	U	ug/Kg	440	460	U	ug/kg	460		
4-Chloroaniline	440	U	ug/Kg	440	-				460	U	ug/kg	460		
2-Nitroaniline	440	U	ug/Kg	440	-				460	U	ug/kg	460		
3-Nitroaniline	440	U	ug/Kg	440	-				460	U	ug/kg	460		
4-Nitroaniline	440	U	ug/Kg	440	-				460	U	ug/kg	460		

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NAS CECIL FIELD -- FACILITY 241
SUBSURFACE SOIL -- PESTICIDES/PCBs -- REQUEST NO. 10841

Lab Sample Number:	JR75551				JR75558				JR33831			
Site	BRAC				BRAC				BRAC			
Locator	88B00101				88B00101D				88B00201			
Collect Date:	09-OCT-97				09-OCT-97				25-SEP-98			
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
BRAC PESTICIDES/PCBS												
alpha-BHC	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
beta-BHC	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
gamma-BHC (Lindane)	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Heptachlor	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Aldrin	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Heptachlor epoxide	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Endosulfan I	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Dieldrin	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
4,4-DDE	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Endrin	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Endosulfan II	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
4,4-DDD	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Endosulfan sulfate	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
4,4-DDT	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Methoxychlor	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
Endrin ketone	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	-			
Endrin aldehyde	2.2	U	ug/Kg	2.2	2.2	U	ug/Kg	2.2	2.3	U	ug/kg	2.3
alpha-Chlordane	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46
gamma-Chlordane	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46
Toxaphene	88	U	ug/Kg	88	88	U	ug/Kg	88	92	U	ug/kg	92
Aroclor-1221	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46
Aroclor-1232	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46
Aroclor-1248	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46
Aroclor-1254	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46
Aroclor-1260	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46
Aroclor-1016/1242	44	U	ug/Kg	44	44	U	ug/Kg	44	46	U	ug/kg	46

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NAS CECIL FIELD -- FACILITY 241
SUBSURFACE SOIL -- INORGANICS -- REQUEST NO. 10842

Lab Sample Number:	JR75551				JR33831				
Site	BRAC				BRAC				
Locator	88B00101				88B00201				
Collect Date:	09-OCT-97				25-SEP-98				
	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL	
CLP METALS AND CYANIDE									
Aluminum	2300		mg/kg	270	2800		mg/kg	56	
Antimony	3	U	mg/kg	3	3	U	mg/kg	3	
Arsenic	.7	U	mg/kg	.7	.7	U	mg/kg	.7	
Barium	27	U	mg/kg	27	28	U	mg/kg	28	
Beryllium	1	U	mg/kg	1	1	U	mg/kg	1	
Cadmium	1	U	mg/kg	1	1	U	mg/kg	1	
Calcium	1100		mg/kg	330	1700		mg/kg	35	
Chromium	3		mg/kg	1	2.6		mg/kg	1	
Cobalt	7	U	mg/kg	7	7	U	mg/kg	7	
Copper	7	U	mg/kg	7	7	U	mg/kg	7	
Iron	21		mg/kg	13	310		mg/kg	14	
Lead	5.2		mg/kg	1	9.9		mg/kg	1	
Magnesium	68		mg/kg	33	88		mg/kg	35	
Manganese	1	U	mg/kg	1	1.9		mg/kg	1	
Mercury	.03		mg/kg	.01	.01	U	mg/kg	.01	
Nickel	7	U	mg/kg	7	7	U	mg/kg	7	
Potassium	33	U	mg/kg	33	35	U	mg/kg	35	
Selenium	3	U	mg/kg	3	3	U	mg/kg	3	
Silver	3	U	mg/kg	3	3	U	mg/kg	3	
Sodium	8.7	U	mg/kg	8.7	35	U	mg/kg	35	
Thallium	1	U	mg/kg	1	1	U	mg/kg	1	
Vanadium	1	U	mg/kg	1	1		mg/kg	1	
Zinc	7	U	mg/kg	7	7	U	mg/kg	7	
Cyanide	-				-				

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NAS CECIL FIELD -- FACILITY 241
GROUNDWATER -- VOLATILES -- REQUEST NO. 10848

Lab Sample Number:	C82QX
Site	CECILBRAC3
Locator	88G00101
Collect Date:	07-FEB-97

	VALUE	QUAL	UNITS	DL
CLP VOLATILES 90-SOW				
Chloromethane	10	U	ug/l	10
Bromomethane	10	U	ug/l	10
Vinyl chloride	10	U	ug/l	10
Chloroethane	10	U	ug/l	10
Methylene chloride	10	U	ug/l	10
Acetone	10	U	ug/l	10
Carbon disulfide	10	U	ug/l	10
1,1-Dichloroethene	10	U	ug/l	10
1,1-Dichloroethane	10	U	ug/l	10
1,2-Dichloroethene (total)	10	U	ug/l	10
Chloroform	10	U	ug/l	10
1,2-Dichloroethane	10	U	ug/l	10
2-Butanone	10	U	ug/l	10
1,1,1-Trichloroethane	10	U	ug/l	10
Carbon tetrachloride	10	U	ug/l	10
Bromodichloromethane	10	U	ug/l	10
1,2-Dichloropropane	10	U	ug/l	10
cis-1,3-Dichloropropene	10	U	ug/l	10
Trichloroethene	10	U	ug/l	10
Dibromochloromethane	10	U	ug/l	10
1,1,2-Trichloroethane	10	U	ug/l	10
Benzene	10	U	ug/l	10
trans-1,3-Dichloropropene	10	U	ug/l	10
Bromoform	10	U	ug/l	10
4-Methyl-2-pentanone	10	U	ug/l	10
2-Hexanone	10	U	ug/l	10
Tetrachloroethene	10	U	ug/l	10
Toluene	10	U	ug/l	10
1,1,2,2-Tetrachloroethane	10	U	ug/l	10
Chlorobenzene	10	U	ug/l	10
Ethylbenzene	10	U	ug/l	10
Styrene	10	U	ug/l	10
Xylenes (total)	10	U	ug/l	10

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NAS CECIL FIELD -- FACILITY 241
GROUNDWATER -- SEMIVOLATILES -- REQUEST NO. 10849

Lab Sample Number:	C82QX			
Site	CECILBRAC3			
Locator	88G00101			
Collect Date:	07-FEB-97			
	VALUE	QUAL	UNITS	DL
CLP SEMIVOLATILES 90-SOW				
Phenol	10	U	ug/l	10
bis(2-Chloroethyl) ether	10	U	ug/l	10
2-Chlorophenol	10	U	ug/l	10
1,3-Dichlorobenzene	10	U	ug/l	10
1,4-Dichlorobenzene	10	U	ug/l	10
1,2-Dichlorobenzene	10	U	ug/l	10
2-Methylphenol	10	U	ug/l	10
2,2-oxybis(1-Chloropropane)	10	U	ug/l	10
4-Methylphenol	10	U	ug/l	10
N-Nitroso-di-n-propylamine	10	U	ug/l	10
Hexachloroethane	10	U	ug/l	10
Nitrobenzene	10	U	ug/l	10
Isophorone	10	U	ug/l	10
2-Nitrophenol	10	U	ug/l	10
2,4-Dimethylphenol	10	U	ug/l	10
bis(2-Chloroethoxy) methane	10	U	ug/l	10
2,4-Dichlorophenol	10	U	ug/l	10
1,2,4-Trichlorobenzene	10	U	ug/l	10
Naphthalene	10	U	ug/l	10
4-Chloroaniline	10	U	ug/l	10
Hexachlorobutadiene	10	U	ug/l	10
4-Chloro-3-methylphenol	10	U	ug/l	10
2-Methylnaphthalene	10	U	ug/l	10
Hexachlorocyclopentadiene	10	U	ug/l	10
2,4,6-Trichlorophenol	10	U	ug/l	10
2,4,5-Trichlorophenol	25	U	ug/l	25
2-Chloronaphthalene	10	U	ug/l	10
2-Nitroaniline	25	U	ug/l	25
Dimethylphthalate	10	U	ug/l	10
Acenaphthylene	10	U	ug/l	10
2,6-Dinitrotoluene	10	U	ug/l	10
3-Nitroaniline	25	U	ug/l	25
Acenaphthene	10	U	ug/l	10
2,4-Dinitrophenol	25	U	ug/l	25
4-Nitrophenol	25	U	ug/l	25
Dibenzofuran	10	U	ug/l	10
2,4-Dinitrotoluene	10	U	ug/l	10
Diethylphthalate	10	U	ug/l	10
4-Chlorophenyl-phenylether	10	U	ug/l	10
Fluorene	10	U	ug/l	10
4-Nitroaniline	25	U	ug/l	25
4,6-Dinitro-2-methylphenol	25	U	ug/l	25
N-Nitrosodiphenylamine	10	U	ug/l	10
4-Bromophenyl-phenylether	10	U	ug/l	10
Hexachlorobenzene	10	U	ug/l	10
Pentachlorophenol	25	U	ug/l	25
Phenanthrene	10	U	ug/l	10
Anthracene	10	U	ug/l	10
Carbazole	10	U	ug/l	10
Di-n-butylphthalate	10	U	ug/l	10

NAS CECIL FIELD -- FACILITY 241
GROUNDWATER -- SEMIVOLATILES -- REQUEST NO. 10849

Lab Sample Number:	C82QX			
Site	CECILBRAC3			
Locator	88G00101			
Collect Date:	07-FEB-97			
	VALUE	QUAL	UNITS	DL
Fluoranthene	10	U	ug/l	10
Pyrene	10	U	ug/l	10
Butylbenzylphthalate	10	U	ug/l	10
3,3-Dichlorobenzidine	10	U	ug/l	10
Benzo (a) anthracene	10	U	ug/l	10
Chrysene	10	U	ug/l	10
bis(2-Ethylhexyl) phthalate	10	U	ug/l	10
Di-n-octylphthalate	10	U	ug/l	10
Benzo (b) fluoranthene	10	U	ug/l	10
Benzo (k) fluoranthene	10	U	ug/l	10
Benzo (a) pyrene	10	U	ug/l	10
Indeno (1,2,3-cd) pyrene	10	U	ug/l	10
Dibenzo (a,h) anthracene	10	U	ug/l	10
Benzo (g,h,i) perylene	10	U	ug/l	10

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NAS CECIL FIELD -- FACILITY 241
GROUNDWATER -- PESTICIDES AND PCBs -- REQUEST NO. 10850

Lab Sample Number:	C82QX
Site	CECILBRAC3
Locator	88G00101
Collect Date:	07-FEB-97

	VALUE	QUAL	UNITS	DL
CLP PESTICIDES/PCBS 90-SOW				
alpha-BHC	.05	U	ug/l	.05
beta-BHC	.05	U	ug/l	.05
delta-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	.1	U	ug/l	.1
4,4-DDE	.1	U	ug/l	.1
Endrin	.1	U	ug/l	.1
Endosulfan II	.1	U	ug/l	.1
4,4-DDD	.1	U	ug/l	.1
Endosulfan sulfate	.1	U	ug/l	.1
4,4-DDT	.1	U	ug/l	.1
Methoxychlor	.5	U	ug/l	.5
Endrin ketone	.1	U	ug/l	.1
Endrin aldehyde	.1	U	ug/l	.1
alpha-Chlordane	.05	U	ug/l	.05
gamma-Chlordane	.05	U	ug/l	.05
Toxaphene	5	U	ug/l	5
Aroclor-1016	1	U	ug/l	1
Aroclor-1221	2	U	ug/l	2
Aroclor-1232	1	U	ug/l	1
Aroclor-1242	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

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NAS CECIL FIELD -- FACILITY 241
GROUNDWATER -- INORGANICS -- REQUEST NO. 10851

Lab Sample Number:	C82QX			
Site	CECILBRAC3			
Locator	88G00101			
Collect Date:	07-FEB-97			
	VALUE	QUAL	UNITS	DL
CLP METALS AND CYANIDE				
Aluminum	1090		ug/l	200
Antimony	3	U	ug/l	60
Arsenic	2	U	ug/l	10
Barium	5.1	J	ug/l	200
Beryllium	1	U	ug/l	5
Cadmium	1	U	ug/l	5
Calcium	22500		ug/l	5000
Chromium	1	U	ug/l	10
Cobalt	1.2	J	ug/l	50
Copper	1	U	ug/l	25
Iron	649		ug/l	100
Lead	1	U	ug/l	3
Magnesium	3130	J	ug/l	5000
Manganese	6.6	J	ug/l	15
Mercury	.1	U	ug/l	.2
Nickel	2	U	ug/l	40
Potassium	1630	J	ug/l	5000
Selenium	4	U	ug/l	5
Silver	1	U	ug/l	10
Sodium	5440		ug/l	5000
Thallium	4	J	ug/l	10
Vanadium	4.2	J	ug/l	50
Zinc	9.2	J	ug/l	20
Cyanide	1.2	U	ug/l	10

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