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June 28, 2002

Project Number N2872

Commander, Southern Division
Naval Facilities Engineering Command
ATTN: Mr. Wayne Hansel (Code ES24)
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: CLEAN Contract Number N62467-94-D-0888
Contract Task Order (CTO) Number 0192

Subject: Site Screening Letter Report
Petroleum Contaminated Area 18
Naval Air Station Jacksonville, Jacksonville, Florida

Dear Mr. Hansel:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this Site Screening Letter Report for Petroleum Contaminated Area (PCA) 18. This Site Screening Letter Report was prepared for the United States Navy (Navy) Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) under Contract Task Order (CTO) 0192, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D0888. The objective of the Site Screening Letter Report is to document results of the field screening activities for soil and groundwater contamination. The field screening activities were performed in accordance with the Work Plan for Site Screening at Various Petroleum Sites dated August 2001.

Background Information

PCA 18 is the former location of a 2,000-gallon, fiberglass, diesel underground storage tank (UST) Number G3900 at Building 3900. Building 3900 (a former water treatment plant) is located in the Westside Regional Park on the west side of Roosevelt Boulevard (Figure 1). The UST was located 10 feet (ft) west of Building 3900 under a concrete slab (Figure 2). The date of the UST installation is unknown and the tank was used to store diesel fuel for an emergency generator. The former UST was in operation at the water treatment plant until 1991, when operations ceased. On September 11, 1995, J.A. Jones Environmental Services Company (J.A. Jones) of Jacksonville, Florida began the tank closure assessment. Prior to removal, most of the diesel fuel in the tank was pumped dry. While attempting to lift the UST to remove the remaining diesel fuel, the UST cracked releasing 50 gallons of petroleum into the excavation. As a result of the release, J.A. Jones initiated an Interim Remedial Action (IRA) plan on September 11, 1995. Using a vacuum truck, approximately 1,600 gallons of petroleum contact water was removed from the excavation. After pumping the pit, 6 cubic yards of contaminated soil were removed for disposal. Once the contaminated soil and groundwater were removed, one temporary monitoring well was installed in the center of the tank pit. Groundwater samples were collected from the temporary well and sent to a laboratory to be analyzed. Of the constituents analyzed, one volatile organic compound (VOC) constituent (benzene) was reported in excess of the current groundwater cleanup target levels (GCTLs) per Chapter 62-770 of the Florida Administrative Code (FAC). No soil samples were collected

for laboratory analysis. In November 1995, J.A. Jones prepared a Storage Tank Closure Report, which presented the results, and submitted it to SOUTHNAVFACENGCOM.

SOUTHNAVFACENGCOM requested that TtNUS perform a limited site screening at PCA 18 to determine current conditions of the site. This effort was to include installing one soil boring and collect and analyze soil and groundwater samples to determine the presence or absence of contamination at the previous source. The intent explained to TtNUS was to facilitate obtaining funds for sites requiring additional assessment and clean up.

The specific activities performed for this limited screening are detailed below.

Field Screening Activities

On December 20, 2001, TtNUS mobilized to PCA 18 (Building 3900) for the field screening activities. During field screening activities, one soil boring (JAX-18-SB-1) was completed at PCA 18. TtNUS performed media sampling via hand-auger from surface level to approximately 10 ft bls (below land surface). The location of PCA 18 with surrounding features, former tank location, and the location of the soil boring is indicated on Figure 2.

Site Lithology

TtNUS observed from the one hand-augered boring that the site is underlain by a layer of organic fill and sand from surface to 1 ft bls. From 1 ft to 7.5 ft bls was a fine to medium grained sand with some silt. A layer of silty fine to medium grained sand was located from 7.5 ft to 8.0 ft bls.

Soil Vapor Analysis

The potential for petroleum impacted soil in the vadose zone was assessed through soil headspace analysis. Headspace analysis was conducted using an organic vapor analyzer (OVA)/flame ionization detector (FID). The soil vapor analysis was performed according to the head space method prescribed in Chapter 62-770.200(2), FAC. Soil samples were collected at approximately 2-ft intervals to the water table, which was encountered at 3 ft bls. The results of the soil vapor screening, presented in Table 1, indicated no soil vapors readings above 50 parts per million (ppm). For diesel fuel sites, soils exhibiting an OVA response of greater than 50 ppm are considered "excessively contaminated" as defined by Chapter 62-770.200, FAC.

Soil Sampling Results

Based on the results of the soil headspace analyses, one soil sample [JAX-18-SB-1 (2.5)] was collected just above the water table at 2.5 ft bls. The soil sample was placed on ice; shipped to Accutest Laboratories in Orlando, Florida; and analyzed for VOCs by United States Environmental Protection Agency (USEPA) Method 8021B, polynuclear aromatic hydrocarbons (PAHs) by USEPA Method 8310, and total recoverable petroleum hydrocarbons (TRPH) by Florida Petroleum Range Organics (FL-PRO). Results of the laboratory analysis indicated that PAH constituents are present at concentrations above Chapter 62-770, FAC, soil cleanup target levels (SCTLs). A summary of detected constituents is presented in Table 2. The complete set of analytical results is presented in Attachment A.

Groundwater Sampling Results

For groundwater sample collection, soil-boring JAX-18-SB-1 was converted to a temporary monitoring well. For the installation of the temporary monitoring well, the soil boring was advanced to 8 ft bls with a hand auger, and a 2-inch polyvinyl chloride (PVC) 0.01 inch slot well screen was installed. The screen intersected the water column from 3 to 8 ft bls, and a sand pack was installed around the well screen. For groundwater recovery, Teflon® tubing was inserted into the well, and the tubing was connected to a

peristaltic pump for low-flow purging and sampling. Several screen volumes were then pumped from the well in order to reduce the turbidity level and ensure a representative sample based on visual observation. The groundwater sample [JAX-18-GW-1 (3-8)] was placed on ice; shipped to Accutest laboratories in Orlando, Florida; and analyzed for VOCs using USEPA Method 8021B, PAHs using USEPA Method 8310, TRPH using FL-PRO, and ethylene dibromide (EDB) using USEPA Method 504.1. The groundwater analytical results, presented in Table 3, indicate petroleum constituents present in groundwater, but at concentrations below Florida Department of Environmental Protection (FDEP) GCTLs. The complete set of analytical results is presented in Attachment A.

Conclusions and Recommendations

Data obtained during the field screening at PCA 18 indicated soil vapor readings below 50 ppm. Confirmatory soil analytical results indicate petroleum constituents present in soil at concentrations exceeding Chapter 62-770, FAC, SCTLs for PAHs. The analytical results from the groundwater sample collected indicate dissolved petroleum constituents are present at the site, but at levels below Chapter 62-770, FAC, GCTLs.

As a result of the PCA 18 site screening, TtNUS recommends that a site assessment (SA) be conducted in accordance with Chapter 62-770, FAC for PCA Site 18 at Building 3900.

Sincerely,

Gregory S. Roof
Task Order Manager

GSR/jf

Enclosures (3)

cc: Jorge Caspary, FDEP (hard copy, CD)
Frank Sigona, NAS Jacksonville (hard copy, CD)
D. Wroblewski (letter only)
M. Perry (unbound copy, CD)
File – CTO 192

TABLES

TABLE 1
SOIL VAPOR MEASUREMENTS

PCA 18
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Soil Boring Number	Date of Measurement	Sample Depth (ft bls)	Headspace Readings (ppm)		
			Total Organic Reading	Carbon Filtered Reading	Net Reading
JAX-18-SB-1	12/20/2001	1	0	0	0
		2.5	0	0	0

Notes:
Wet Soils encountered at approximately 3 ft bls.

TABLE 2
CONFIRMATORY SOIL SAMPLING ANALYTICAL RESULTS

PCA 18
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Compound	Direct Exposure Residential[1]	Leachability Based on Groundwater Criteria[1]	**PCA 18**
			JAX-18-SB-1 (2.5)
			12/20/2001
Sample Depth			2.5 ft bls
PAHs (USEPA Method 8310) (µg/kg)			
Anthracene	1,800,000	2,500,000	2760
Benzo(A)anthracene	1,400	3,200	**6970**
Benzo(A)pyrene	100	8,000	**6620**
Benzo(B)fluoranthene	1,400	10,000	**3660**
Benzo(G,H,I)perylene	2,300,000	32,000,000	3420
Benzo(K)fluoranthene	15,000	25,000	3000
Chrysene	140,000	77,000	5950
Dibenzo(A,H)anthracene	100	30,000	**615**
Fluoranthene	2,900,000	1,200,000	15400
Fluorene	2,200,000	160,000	1110 J
Indeno(1,2,3-CD)pyrene	1,500	28,000	**3990**
phenanthrene	2,000,000	250,000	10400
pyrene	2,000,000	880,000	13400
FL-PRO (mg/kg)			
TRPH	340	340	46.8

Notes:
J = Estimated Value
U = below laboratory detection limits
[1]Chapter 62-770, FAC (April 30, 1999)
Bold values are above target levels.
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram

TABLE 3
SUMMARY OF GROUNDWATER QUALITY

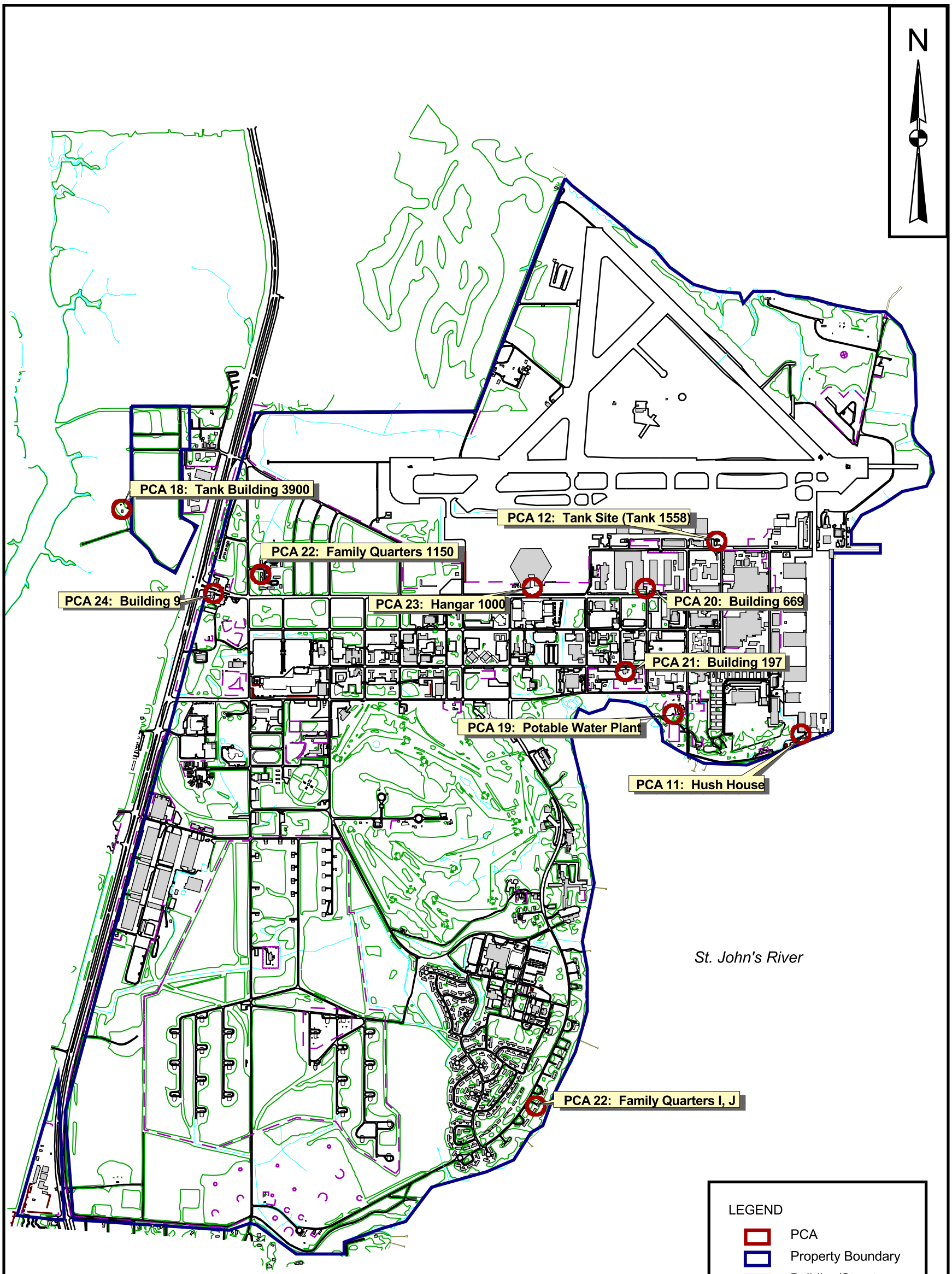
PCA 18
NAVAL AIR STATION JACKSONVILLE
JACKSONVILLE, FLORIDA

Compound	FDEP Target Level[1]	PCA 18
		JAX-18-SB-1 (3-8)
		12/20/01
PAHs (USEPA Method 8310) (µg/L)		
1-Methylnaphthalene	20	8
2-Methylnaphthalene	20	9.7
Naphthalene	20	2.4
FL-PRO (USEPA Method 8270) (mg/L)		
TRPH	5	0.463

Notes:
[1]Chapter 62-770, FAC (August, 1999)
Bold values are above target levels.
µg/L = micrograms per liter
mg/L = milligrams per liter

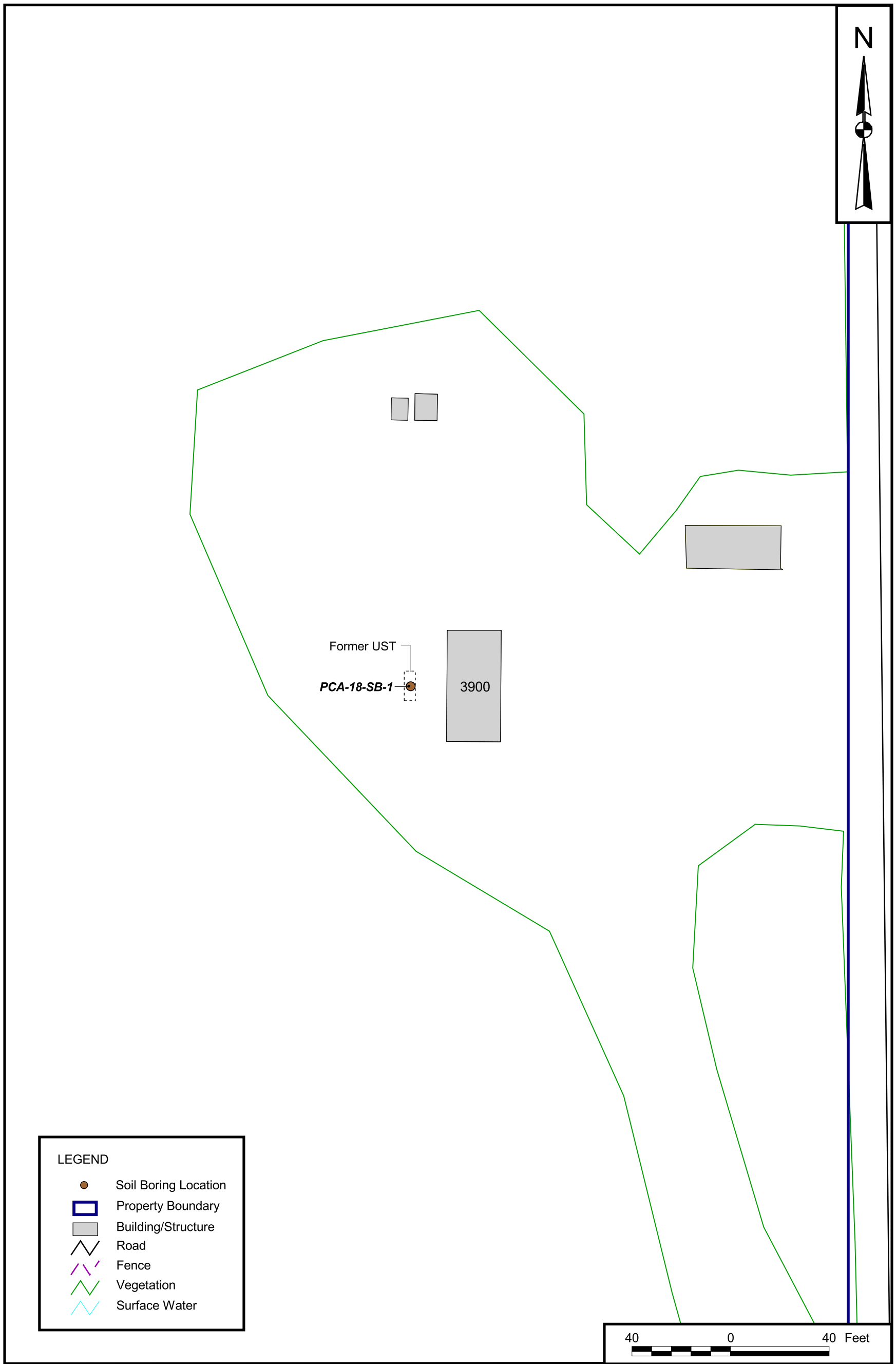
FIGURES

P:\GIS\JACKSONVILLE_NAS\APR\PCA.APR PCA SITE MAP 5/15/02 JAL



DRAWN BY: J. LAMEY	DATE: 5/14/02	SITE LOCATION MAP PETROLEUM CONTAMINATION ASSESSMENT NAVAL AIR STATION JACKSONVILLE, FLORIDA	CONTRACT NUMBER: —
CHECKED BY: _____	DATE: _____		APPROVED BY: — DATE: —
COST/SCHEDULE-AREA			APPROVED BY: — DATE: —
SCALE: AS NOTED			DRAWING NO.: FIGURE 1 REV: 0

P:\GIS\JACKSONVILLE_NAS\APR\PCA.APR PCA 18: TANK BUILDING 3900 5/14/02 JAL



DRAWN BY: J. LAMEY	DATE: 4/26/02	SOIL BORING LOCATIONS PCA 18 - TANK BUILDING 3900 PETROLEUM CONTAMINATION ASSESSMENT NAVAL AIR STATION JACKSONVILLE, FLORIDA	CONTRACT NUMBER: 2872
CHECKED BY:	DATE:		APPROVED BY: — DATE: —
COST/SCHEDULE-AREA			APPROVED BY: — DATE: —
SCALE: AS NOTED			DRAWING NO.: — FIGURE 2 REV: 0

ATTACHMENT A
ANALYTICAL RESULTS

CTO192-NAS JACKSONVILLE
SOIL DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-2.5		
SAMPLE DATE:	12/20/01	/ /	/ /
LABORATORY ID:	F11878-2		
QC_TYPE:	NORMAL		
% SOLIDS:	82.5 %	100.0 %	100.0 %
UNITS:	UG/KG		
FIELD DUPLICATE OF:			

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	5.6	U										
1,1,2,2-TETRACHLOROETHANE	5.6	U										
1,1,2-TRICHLOROETHANE	5.6	U										
1,1-DICHLOROETHANE	5.6	U										
1,1-DICHLOROETHENE	5.6	U										
1,2-DICHLOROBENZENE	5.6	U										
1,2-DICHLOROETHANE	5.6	U										
1,2-DICHLOROPROPANE	5.6	U										
1,3-DICHLOROBENZENE	5.6	U										
1,4-DICHLOROBENZENE	5.6	U										
2-CHLOROETHYL VINYL ETHER	11	U										
BENZENE	5.6	U										
BROMODICHLOROMETHANE	5.6	U										
BROMOFORM	5.6	U										
BROMOMETHANE	5.6	U										
CARBON TETRACHLORIDE	5.6	U										
CHLOROBENZENE	5.6	U										
CHLORODIBROMOMETHANE	5.6	U										
CHLOROETHANE	5.6	U										
CHLOROFORM	5.6	U										
CHLOROMETHANE	5.6	U										
CIS-1,2-DICHLOROETHENE	5.6	U										
CIS-1,3-DICHLOROPROPENE	5.6	U										
DICHLORODIFLUOROMETHANE	5.6	U										
ETHYLBENZENE	5.6	U										
METHYL TERT-BUTYL ETHER	5.6	U										
METHYLENE CHLORIDE	11	U										
TETRACHLOROETHENE	5.6	U										
TOLUENE	5.6	U										
TOTAL XYLENES	17	U										
TRANS-1,2-DICHLOROETHENE	5.6	U										
TRANS-1,3-DICHLOROPROPENE	5.6	U										

CTO192-NAS JACKSONVILLE
SOIL DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-2.5										
SAMPLE DATE:	12/20/01			/ /			/ /			/ /	
LABORATORY ID:	F11878-2										
QC_TYPE:	NORMAL										
% SOLIDS:	82.5 %			100.0 %			100.0 %			100.0 %	
UNITS:	UG/KG										
FIELD DUPLICATE OF:											

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
TRICHLOROETHENE	5.6	U										
TRICHLOROFLUOROMETHANE	5.6	U										
VINYL CHLORIDE	5.6	U										

CTO192-NAS JACKSONVILLE
SOIL DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-2.5		
SAMPLE DATE:	12/20/01	/ /	/ /
LABORATORY ID:	F11878-2		
QC_TYPE:	NORMAL		
% SOLIDS:	82.5 %	100.0 %	100.0 %
UNITS:	UG/KG		
FIELD DUPLICATE OF:			

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	1700	U										
2-METHYLNAPHTHALENE	1700	U										
ACENAPHTHENE	3300	U										
ACENAPHTHYLENE	3300	U										
ANTHRACENE	2760											
BENZO(A)ANTHRACENE	6970											
BENZO(A)PYRENE	6620											
BENZO(B)FLUORANTHENE	3660											
BENZO(G,H,I)PERYLENE	3420											
BENZO(K)FLUORANTHENE	3000											
CHRYSENE	5950											
DIBENZO(A,H)ANTHRACENE	615											
FLUORANTHENE	15400											
FLUORENE	1110	J	P									
INDENO(1,2,3-CD)PYRENE	3990											
NAPHTHALENE	1700	U										
PHENANTHRENE	10400											
PYRENE	13400											

CTO192-NAS JACKSONVILLE
SOIL DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-2.5			
SAMPLE DATE:	12/20/01	/ /	/ /	/ /
LABORATORY ID:	F11878-2			
QC_TYPE:	NORMAL			
% SOLIDS:	82.5 %	100.0 %	100.0 %	100.0 %
UNITS:	MG/KG			
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
PETROLEUM HYDROCARBONS												
TOTAL PETROLEUM HYDROCARBONS	46.8											

CTO192-NAS JACKSONVILLE
WATER DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-(3-8)	JAX-20-MW1-01		
SAMPLE DATE:	12/20/01	12/20/01	/ /	/ /
LABORATORY ID:	F11878-1	F11878-3		
QC_TYPE:	NORMAL	NORMAL		
% SOLIDS:	0.0 %	0.0 %	100.0 %	100.0 %
UNITS:	UG/L	UG/L		
FIELD DUPLICATE OF:				

VOLATILES	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
1,1,1-TRICHLOROETHANE	1	U		1	U							
1,1,2,2-TETRACHLOROETHANE	1	U		1	U							
1,1,2-TRICHLOROETHANE	1	U		1	U							
1,1-DICHLOROETHANE	1	U		1	U							
1,1-DICHLOROETHENE	1	U		1	U							
1,2-DIBROMOETHANE	0.02	U		0.02	U							
1,2-DICHLOROBENZENE	1	U		1	U							
1,2-DICHLOROETHANE	1	U		1	U							
1,2-DICHLOROPROPANE	1	U		1	U							
1,3-DICHLOROBENZENE	1	U		1	U							
1,4-DICHLOROBENZENE	1	U		1	U							
2-CHLOROETHYL VINYL ETHER	1	U		1	U							
BENZENE	1	U		1	U							
BROMODICHLOROMETHANE	1	U		1	U							
BROMOFORM	1	U		1	U							
BROMOMETHANE	1	U		1	U							
CARBON TETRACHLORIDE	1	U		1	U							
CHLOROBENZENE	1	U		1	U							
CHLORODIBROMOMETHANE	1	U		1	U							
CHLOROETHANE	1	U		1	U							
CHLOROFORM	1	U		1	U							
CHLOROMETHANE	1	U		1	U							
CIS-1,2-DICHLOROETHENE	1	U		1	U							
CIS-1,3-DICHLOROPROPENE	1	U		1	U							
DICHLORODIFLUOROMETHANE	1	U		1	U							
ETHYLBENZENE	1	U		7.2								
METHYL TERT-BUTYL ETHER	1	U		1	U							
METHYLENE CHLORIDE	5	U		5	U							
TETRACHLOROETHENE	1	U		1	U							
TOLUENE	1	U		1	U							
TOTAL XYLENES	3	U		3	U							
TRANS-1,2-DICHLOROETHENE	1	U		1	U							

CTO192-NAS JACKSONVILLE
WATER DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-(3-8)			JAX-20-MW1-01								
SAMPLE DATE:	12/20/01			12/20/01			/ /			/ /		
LABORATORY ID:	F11878-1			F11878-3								
QC_TYPE:	NORMAL			NORMAL								
% SOLIDS:	0.0 %			0.0 %			100.0 %			100.0 %		
UNITS:	UG/L			UG/L								
FIELD DUPLICATE OF:												
	RESULT	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**
VOLATILES												
TRANS-1,3-DICHLOROPROPENE	1	U		1	U							
TRICHLOROETHENE	1	U		1	U							
TRICHLOROFLUOROMETHANE	1	U		1	U							
VINYL CHLORIDE	1	U		1	U							

CTO192-NAS JACKSONVILLE
WATER DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-(3-8)	JAX-20-MW1-01		
SAMPLE DATE:	12/20/01	12/20/01	/ /	/ /
LABORATORY ID:	F11878-1	F11878-3		
QC_TYPE:	NORMAL	NORMAL		
% SOLIDS:	0.0 %	0.0 %	100.0 %	100.0 %
UNITS:	UG/L	UG/L		
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
POLYNUCLEAR AROMATIC HYDROCARBONS												
1-METHYLNAPHTHALENE	8			3.7								
2-METHYLNAPHTHALENE	9.7			2.9								
ACENAPHTHENE	4.4	U		3.7	J	P						
ACENAPHTHYLENE	4.4	U		4.4	U							
ANTHRACENE	2.2	U		1.4	J	P						
BENZO(A)ANTHRACENE	0.22	U		0.22	U							
BENZO(A)PYRENE	0.22	U		0.22	U							
BENZO(B)FLUORANTHENE	0.22	U		0.22	U							
BENZO(G,H,I)PERYLENE	0.22	U		0.22	U							
BENZO(K)FLUORANTHENE	0.22	U		0.22	U							
CHRYSENE	2.2	U		2.2	U							
DIBENZO(A,H)ANTHRACENE	0.22	U		0.22	U							
FLUORANTHENE	2.2	U		2.8								
FLUORENE	2.2	U		3.8								
INDENO(1,2,3-CD)PYRENE	0.22	U		0.22	U							
NAPHTHALENE	2.4			3.6								
PHENANTHRENE	2.2	U		3.6								
PYRENE	2.2	U		1.5	J	P						

CTO192-NAS JACKSONVILLE
WATER DATA
Accutest, NJ
SDG: F11878

SAMPLE NUMBER:	JAX-18-SB1-(3-8)	JAX-20-MW1-01		
SAMPLE DATE:	12/20/01	12/20/01	/ /	/ /
LABORATORY ID:	F11878-1	F11878-3		
QC_TYPE:	NORMAL	NORMAL		
% SOLIDS:	0.0 %	0.0 %	100.0 %	100.0 %
UNITS:	MG/L	MG/L		
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
TOTAL PETROLEUM HYDROCARBONS	0.463			1.77								

Accutest Laboratories

Report of Analysis

Client Sample ID:	JAX-18-SB1-2.5		
Lab Sample ID:	F11878-2	Date Sampled:	12/20/01
Matrix:	SO - Soil	Date Received:	12/21/01
Method:	SW846 8260B	Percent Solids:	82.5
Project:	NAS JAX- N2872-100101 CTO#0192		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H014913.D	1	12/31/01	KW	n/a	n/a	VH478
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.6	ug/kg	
75-27-4	Bromodichloromethane	ND	5.6	ug/kg	
75-25-2	Bromoform	ND	5.6	ug/kg	
108-90-7	Chlorobenzene	ND	5.6	ug/kg	
75-00-3	Chloroethane	ND	5.6	ug/kg	
67-66-3	Chloroform	ND	5.6	ug/kg	
110-75-8	2-Chloroethyl vinyl ether	ND	11	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.6	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.6	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.6	ug/kg	
124-48-1	Dibromochloromethane	ND	5.6	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.6	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.6	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.6	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.6	ug/kg	
100-41-4	Ethylbenzene	ND	5.6	ug/kg	
74-83-9	Methyl bromide	ND	5.6	ug/kg	
74-87-3	Methyl chloride	ND	5.6	ug/kg	
75-09-2	Methylene chloride	ND	11	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.6	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.6	ug/kg	
108-88-3	Toluene	ND	5.6	ug/kg	
79-01-6	Trichloroethylene	ND	5.6	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.6	ug/kg	
75-01-4	Vinyl chloride	ND	5.6	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	JAX-18-SB1-2.5		
Lab Sample ID:	F11878-2	Date Sampled:	12/20/01
Matrix:	SO - Soil	Date Received:	12/21/01
Method:	EPA 8310 SW846 3550B	Percent Solids:	82.5
Project:	NAS JAX- N2872-100101 CTO#0192		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	EE006925.D	4	01/04/02	MRE	01/03/02	OP4471	GEE315
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	3300	ug/kg	
208-96-8	Acenaphthylene	ND	3300	ug/kg	
120-12-7	Anthracene	2760	1700	ug/kg	
56-55-3	Benzo(a)anthracene	6970	1700	ug/kg	
50-32-8	Benzo(a)pyrene	6620	330	ug/kg	
205-99-2	Benzo(b)fluoranthene	3660	330	ug/kg	
191-24-2	Benzo(g,h,i)perylene	3420	330	ug/kg	
207-08-9	Benzo(k)fluoranthene	3000	330	ug/kg	
218-01-9	Chrysene	5950	1700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	615	330	ug/kg	
206-44-0	Fluoranthene	15400	1700	ug/kg	
86-73-7	Fluorene	1110	1700	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	3990	330	ug/kg	
91-20-3	Naphthalene	ND	1700	ug/kg	
90-12-0	1-Methylnaphthalene	ND	1700	ug/kg	
91-57-6	2-Methylnaphthalene	ND	1700	ug/kg	
85-01-8	Phenanthrene	10400	1700	ug/kg	
129-00-0	Pyrene	13400	1700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	108%		37-158%
92-94-4	p-Terphenyl	139%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

ND = Not detected
RL = Reporting Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	JAX-18-SB1-2.5		
Lab Sample ID:	F11878-2	Date Sampled:	12/20/01
Matrix:	SO - Soil	Date Received:	12/21/01
Method:	FLORIDA-PRO SW846 3550B	Percent Solids:	82.5
Project:	NAS JAX- N2872-100101 CTO#0192		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19109.D	1	12/31/01	ME	12/31/01	OP4463	GOP711
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	46.8	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	104%		66-130%

ND = Not detected
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	JAX-18-SB1-(3-8)		
Lab Sample ID:	F11878-1	Date Sampled:	12/20/01
Matrix:	AQ - Ground Water	Date Received:	12/21/01
Method:	EPA 504.1 EPA 504	Percent Solids:	n/a
Project:	NAS JAX- N2872-100101 CTO#0192		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD04419.D	1	12/26/01	NJ	12/26/01	OP4442	GDD163
Run #2							

CAS No.	Compound	Result	RL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	JAX-18-SB1-(3-8)		
Lab Sample ID:	F11878-1	Date Sampled:	12/20/01
Matrix:	AQ - Ground Water	Date Received:	12/21/01
Method:	SW846 8021B	Percent Solids:	n/a
Project:	NAS JAX- N2872-100101 CTO#0192		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR008031.D	1	12/31/01	RA	n/a	n/a	GQR343
Run #2							

VOA 8021 List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
110-75-8	2-Chloroethylvinyl ether	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

ND = Not detected
RL = Reporting Limit
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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	JAX-18-SB1-(3-8)		
Lab Sample ID:	F11878-1	Date Sampled:	12/20/01
Matrix:	AQ - Ground Water	Date Received:	12/21/01
Method:	EPA 8310 SW846 3510C	Percent Solids:	n/a
Project:	NAS JAX- N2872-100101 CTO#0192		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA009866.D	1	12/31/01	MRE	12/24/01	OP4434	GAA437
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	2.4	2.2	ug/l	
90-12-0	1-Methylnaphthalene	8.0	2.2	ug/l	
91-57-6	2-Methylnaphthalene	9.7	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	56%		33-141%
92-94-4	p-Terphenyl	73%		31-122%

(a) All hits confirmed by spectral match using a diode array detector.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	JAX-18-SB1-(3-8)		
Lab Sample ID:	F11878-1	Date Sampled:	12/20/01
Matrix:	AQ - Ground Water	Date Received:	12/21/01
Method:	FLORIDA-PRO SW846 3510C	Percent Solids:	n/a
Project:	NAS JAX- N2872-100101 CTO#0192		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19047.D	1	12/28/01	ME	12/27/01	OP4448	GOP710
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	0.463	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		55-130%

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RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 122001 F11878 PAGE 1 OF 1

PROJECT NO:	SITE NAME:	PROJECT MANAGER AND PHONE NUMBER	LABORATORY NAME AND CONTACT:
2872	Various RA Sites	Greg Roof (904) 281-0400	Accutest Linda Williams
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER AND PHONE NUMBER	ADDRESS
		Joe Ferrara (904) 281-0400	4405 Vineland Rd #C-15
		CARRIER/WAYBILL NUMBER	CITY, STATE
		8311 1072 7196	Orlando, FL 32811

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

	DATE YEAR	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	CONTAINER TYPE PLASTIC (P) or GLASS (G)								
							PRESERVATIVE USED			HCl			H_2SO_4		
							TYPE OF ANALYSIS	VOHs 8021B.	EDB 504	PAHs 8310	TRPH - FL-PRO	VOHs (encore)	TRPH-FL-PRO	PAHs 8310	COMMENTS
1	12/20	1410	JAX-18-SB1-(3-8)	Gw	G	10		3	3	2	2				Cool to 4°C
2	12/20	1353	JAX-18-SB1-(2.5)	Soil	G	4						3	1 ea	1	
3	12/20	1530	JAX-20-MW1-01	Gw	G	10		3	3	2	2				

1. RELINQUISHED BY	DATE 12/20/01	TIME 1830	1. RECEIVED BY	DATE 12/21/01	TIME 1050
2. RELINQUISHED BY	DATE	TIME	2. RECEIVED BY	DATE	TIME
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME
COMMENTS					

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

3.2

3/99 FORM NO. TtNUS-001