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NWS EARLE
5090.3a

JACI CORP.

ENVIRONMENTAL
ENGINEERS
AND
CONSULTANTS

May 7, 1991

SOIL SAMPLING REPORT
NAVAL WEAPONS STATION EARLE

Prepared for:

Department of the Navy
Naval Weapons Station Earle
Colts Neck, NJ 07722-5000

Prepared by:

JACA Corp.

Environmental Engineers and Consultants
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1.0 INTRODUCTION

On May 23, 1989, a 2,000 gallon underground waste oil storage tank located west of building C14 at the Naval Weapons Station Earle at Colts Neck, New Jersey was removed. Upon removal, samples were obtained from the soil beneath the tank. The results sample analyses were subsequently rejected by the New Jersey Department of Environmental Protection (NJDEP) on grounds that the analytical laboratory had not followed the prescribed NJDEP Tier 1 protocols. Subsequent to that event, JACA submitted a revised sampling plan to the NJDEP. The sampling plan, dated Autust 10, 1990 was approved by the NJDEP by letter dated December 5, 1990. NJDEP later revised the sampling plan to delete analysis for petroleum hydrocarbons and add polychlorinated biphenyl (PCB) analysis. On February 4, 1991, JACA performed the second round of sampling at the Colts Neck Facility. This report describes and presents the results of the February 4, 1991 sampling.

2.0 SAMPLING OBJECTIVES

The objective of this sampling was to resample the soil that was beneath the tank adjacent to building C14 prior to its removal in 1988 to determine if the soil has been contaminated due to a tank leak. The analysis was carried out in strict accordance with NJDEP Tier I protocols.

3.0 SITE VISIT

The February 4, 1991 sampling was performed in accordance with the NJDEP approved sampling plan. All required sample containers were cleaned, prepared, and supplied by the analytical laboratory. The samples were obtained using a carbon steel split spoon sampler driven ahead of a

hollowstem auger. The split spoon and sampling rig auger flights were steam cleaned before use on site and between each sampling point. The split spoon was decontaminated before each use. Sampling and decontamination procedures were as follows:

a. A plastic apron was laid out and the sampling equipment, bottles and logging information were staged upon it.

b. The sample containers were inspected and properly labeled.

c. The solutions and equipment to decontaminate the sampling equipment were staged upon a separate plastic apron.

d. The sampling equipment was decontaminated according to NJDEP protocol.

e. The samples were obtained with a carbon steel split spoon from the appropriate depths.

f. The split spoon was opened on the clean plastic apron and the various sample containers filled. The vials for volatile organics were filled first. The probe utilized to break up the sample and/or remove it from the spoon was a decontaminated carbon steel trowel.

g. After placing the sample into the bottle, soil particles were cleaned off the bottle lip, and the lid screwed on tightly.

The following decontamination procedure was utilized upon site.

a. Wash with an Alconox solution

b. Rinse with tap water

c. Rinse with distilled/deionized water

d. Rinse with 10 percent nitric acid

e. Rinse the distilled/deionized water

f. Rinse with acetone

g. Air dry

h. Final rinse with distilled/deionized water

i. All rinse water was contained and disposed of properly

In addition to the soil samples, a number of quality control (QC) samples were obtained. The QC samples were chosen following the guidance provided in Chapter 1 and 9, volume 2, 3rd edition SW-846. Field blank QC samples were obtained for each sample parameter analyzed with the exception of PCB's (see Section 5.0 of this report). The field blank procedure utilized two sets of containers, one full of analyte-free water, the other empty. At the site, the analyte free water from one container was poured through decontaminated sampling equipment into the empty container. The subject blank samples were labeled BL-1. One duplicate sample was also obtained. The sample was labled CN-4.2.

The samples were transported to the laboratory in an expeditious manner. Prior to transport, the samples were placed in a thermal chest where the temperature was maintained at 4°C by ice. The thermal chest and the associated chain of custody form was hand delivered to the laboratory

on the day of sampling. The chain of custody procedure utilized is the procedure found in Chapter 9, Volume 2 of SW-846. A copy of the chain of custody form utilized is included as an attachment. JACA was accompanied on-site during the entire sampling procedure by Denise Rude of the NJ DEP. No safety or health violations occurred.

4.0 SAMPLE LOCATIONS

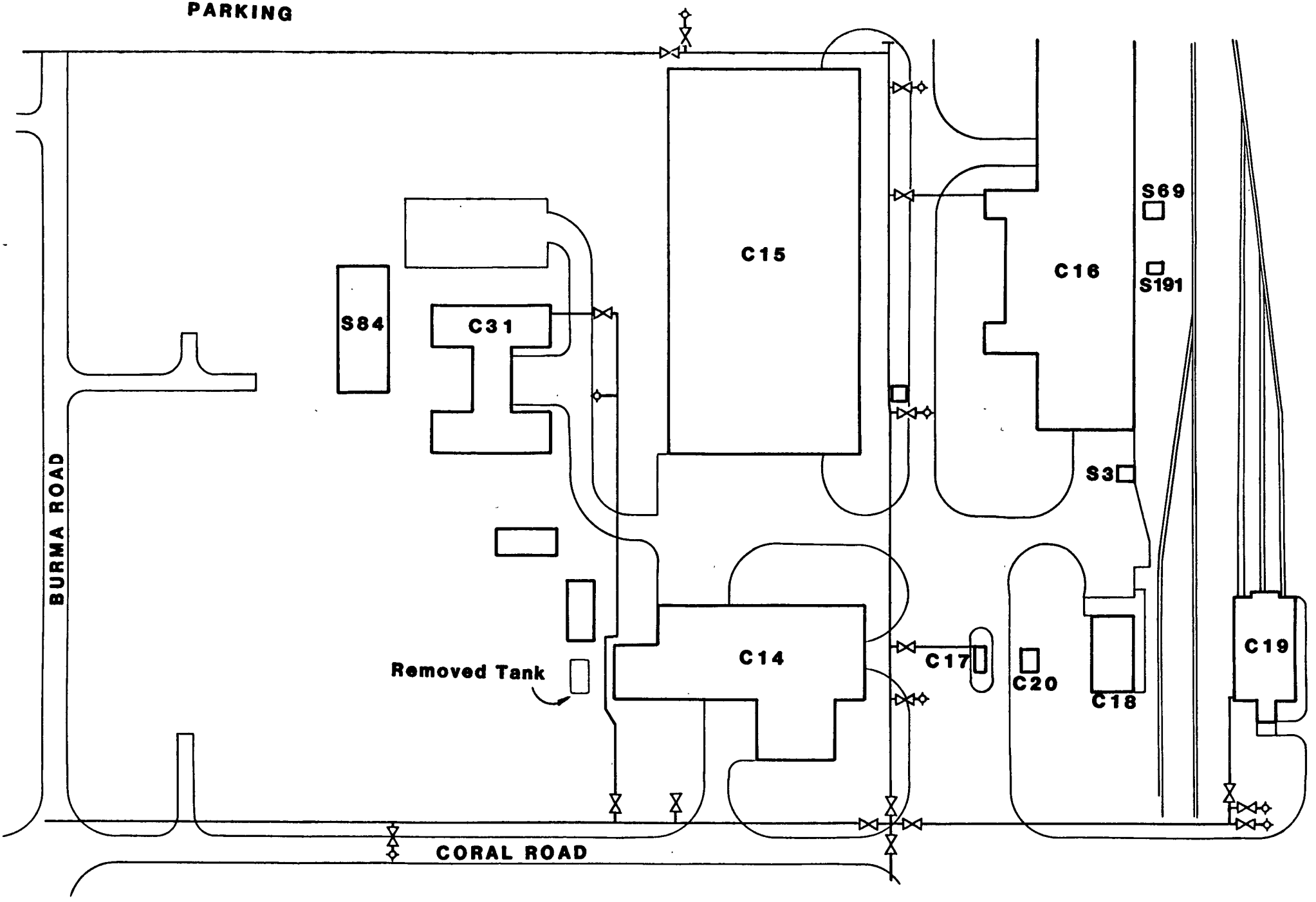
The removed UST was located just west of building C14. The location of building C14 is shown in Figure 1. Sample locations are shown in Figure 2. Sample labels and depth are as follows: CN-1 is 9'0" below the surface; CN-2 is 11'7" below the surface; CN-3 is 10'5" below the surface and CN-4 is 8'7" below the ground surface. Because previous sampling detected a elevated concentration of petroleum hydrocarbons, additional samples (CN-2.2 and CN-2.3) were obtained from below the CN-2 sample location. Sample CN-2.2 and CN-2.3 were obtained from depths of 13'7" and 16'7", respectively. All of the subject samples were obtained on February 4, 1991.

5.0 DEVIATION FROM APPROVED SAMPLING PLAN

Subsequent to sample collection, NJDEP initiated a deviation to the approved analytical parameters called for in the approved sampling and analysis plan. The modification required the analysis of PCBs and excluded the need for total petroleum hydrocarbon (TPHC) analysis. Since the change was made subsequent to sample collection, DEP excluded the need for a PCB field blank. JACA chose to analyze sample CN-2, CN-2.2 and CN-2.3 for TPHC

Site Map Building C14 Ar a

FIGURE 1



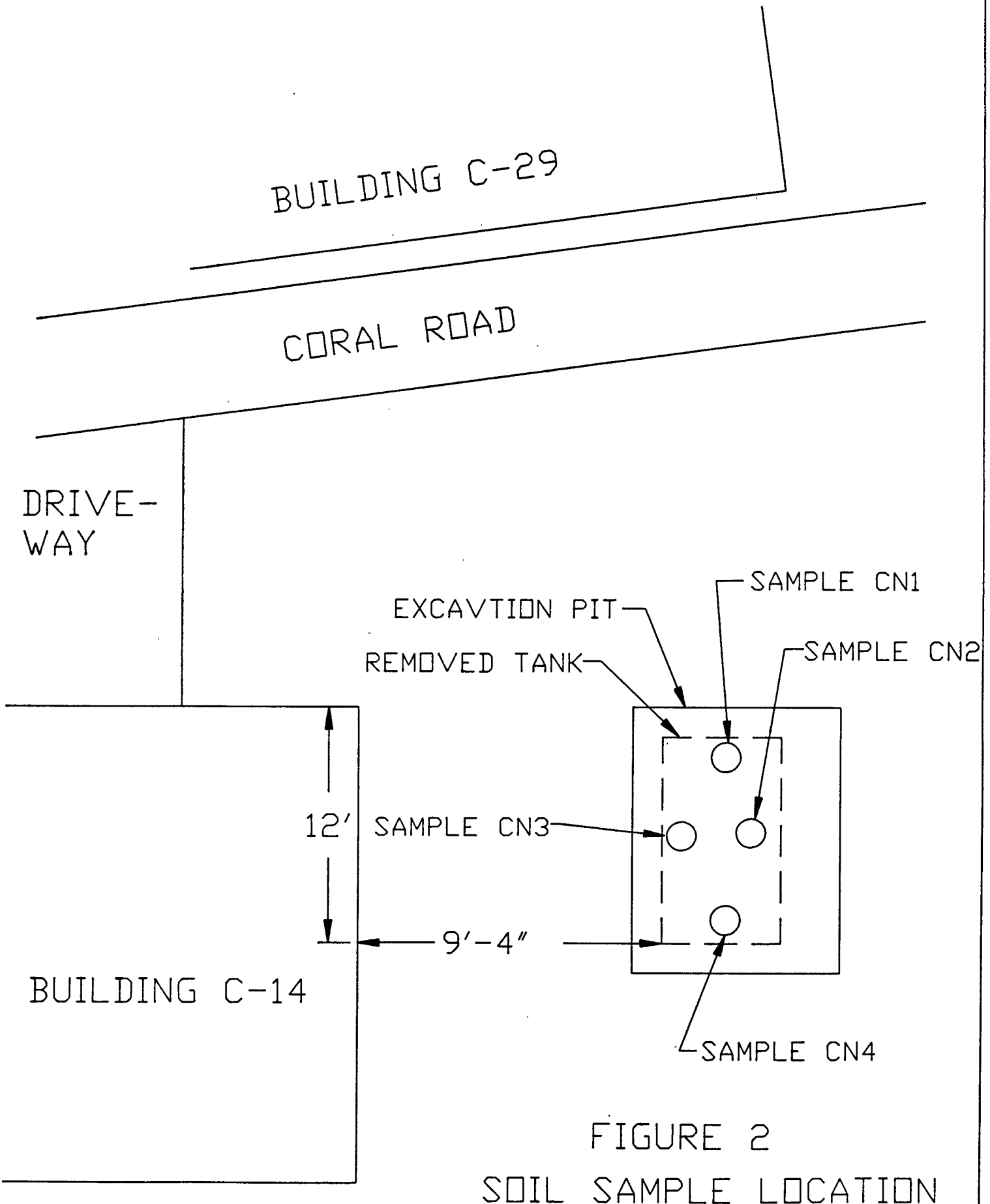


FIGURE 2

SOIL SAMPLE LOCATION
NOT TO SCALE

anyway, due to the detection of TPHC during previous sample analysis. Under current DEP regulations, a trip blank is not required, therefore none was obtained. A copy of DEP's letter verifying the changes noted above is included with this report as Appendix B.

6.0 SAMPLE ANAYLSIS

The samples were analyzed by QC Laboratories of Feasterville, PA. The subject samples were analyzed using NJDEP Tier 1 protocols. Data results were reported according to the regulated deliverable format to be utilized for analysis conducted in accordance SW-846 3rd Edition. The submitted packages include all QA/QC data required for the Tier 1 protocol. Information reported by the laboratory includes: calibration data, method blanks results, sample results, dates of analysis, and IR spectra for calibration standard, all blanks, and all samples. To ensure that the proper level of extraction and analysis was conducted, the laboratory screened all samples prior to analysis. Screening results are maintained by the laboratory. A table summarizing detected contaminants is included as Appendix C of this report. A copy of the subject data sheets are also included as an attachment. The full data packages have been provided under a separate cover.

APPENDIX A

CHAIN OF SAMPLE CUSTODY

JACA P.O. _____

Sample I.D.#	Collected Date / Time	Liquid / Solid	Containers No. / Size / Mat. / Preservation?	Analyze for the Following Parameters
CN-1	2/4/91 10:40	S	1 4oz Glass N/A	- Total petroleum hydrocarbons
	10:40		2 500cc Glass N/A	using EPA method No 418.1
	10:40		4 40ml VOA's N/A	- TCL #30 Volatile Organics using
CN-2	2:03		1 4oz Glass N/A	EPA method SW846
	2:03		2 500cc Glass N/A	- TCL #30 Semi-Volatile Organics using
	2:03		4 40ml VOA's N/A	EPA method SW846
CN-2.2	2:45		1 4oz Glass N/A	- Chromium, Lead, Nickel, Vanadium
	2:45		2 500cc Glass N/A	Zinc using EPA method SW846
	2:45		4 40ml VOA's N/A	
CN 2.3	3:15		1 4oz Glass N/A	
	3:15		2 500cc Glass N/A	
	3:15		4 40ml VOA's N/A	
CN-3	11:25		1 4oz Glass N/A	
	11:25		2 500cc Glass N/A	
	11:25		4 40ml VOA's N/A	
CN-4	1:12		1 4oz Glass N/A	
	1:12		2 500cc Glass N/A	
	1:12		4 ~~2~~ 3 40ml VOA's N/A	

COSC/5-90

Delivered by: Jason M. Gorzo

Received by: Brian D Kelly

Samples OK

Date / Time: 2/4/91 7:15pm

Date / Time: 2-4-91 7:15 PM

Provide Results to: Joseph Garza at

Deadline: _____

Notes: ~~All results~~ A copy of the analysis required was given to Amy Rudy
One CN-4 VOA Broke on the shipment to the lab

JACA Corp.
550 Pinetown Road
Ft. Washington, PA 190[illegible]
(215) 643-5466 ◆ F[illegible] (215) 643-2772

000001

CHAIN OF SAMPLE CUSTODY

JACA P.O. _____

Sample I.D.#	Collected Date / Time	Liquid / Solid	Containers No. / Size / Mat. / Preservation?	Analyze for the Following Parameters
CN-1.2	2/4/91 1:12	S	1 4 oz Glass N/A	- Total Petroleum hydrocarbons using
	1:12	S	2 500 cc Glass N/A	EPA Method No 418.1
	1:12	S	4 40 ml Glass N/A	- TCL+30 Volatile Organics using EPA
BL-1	3:30	L	4 40 ml Glass VOA's HCL	Method SW846
	3:30	L	4 1 Liter Glass ambers N/A	- TCL+30 Semi-Volatile Organics using
	3:30	L	1 1 Liter Glass amber HCL	EPA Method SW846
	3:30	L	1 1 Liter Plastic Nitric	- Chromium, Lead, Nickel, Vanadium,
				Zinc using EPA Method SW846

Delivered by: Joseph M. Gorzo

Date / Time: 2/4/91 7:15 pm

Received by: Bruce D. Meyer

Date / Time: 2-4-91 7:15 PM

Samples OK

COSC/5-90

Provide Results to: Joseph Gorzo at

Deadline:

Notes:

JACA Corp.
550 Pinetown Road
Ft. Washington, PA 19034
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000002

APPENDIX B

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
LANCE R. MILLER, DIRECTOR
CN 028
Trenton, N.J. 08625-0028
(609) 633-1408
Fax # (609) 633-1454

RECEIVED
FEB 25 1991
JACA CORP.

Mr. William Matthaey
Department of the Navy
Naval Weapons Station Earle
Colts Neck, NJ 07722-5000

FEB 21 1991

RE: Parameter Modification, February 4, 1991 Soil Sampling, Naval Weapons Station Earle (NWSE), Colts Neck, Monmouth County, EPA ID No. NJ 0170022172

Dear Mr. Matthaey:

While conducting an audit at the above referenced facility on February 4, 1991, it was noted that there was a discrepancy between the parameters scheduled for analysis, and the previous analyses conducted for the May 23, 1988 sampling. Since all data (except petroleum hydrocarbon) was rejected from the May 23, 1988 sampling, it was the Department's intention that the resampling would be for the reanalysis of previously rejected parameters. During the Sampling Plan Revision (SSAP) review and approval process, this stipulation was inadvertently overlooked.

On February 5, 1991 Denise Rude of the Department notified JACA Corporation NWSE's consuctant by telephone of the Department's concerns. The matter was resolved with the following modifications:

1. The proposed seven samples for TPHC analysis are not required, since this data was originally acceptable. It is the facility's option to analyze the delineation samples at location CN2 for TPHC, since initially there was a hit of 950 ppm TPHC at his location, although this is not required by the Department. The rationale for the Department not requiring TPHC delineation at this location is; base neutrals and volatile organics data will be generated providing more useful information as to the nature of the contamination present.

2. Analysis for PCBs will be conducted for the following four samples collected on February 4, 1991; CN1, CN2, CN3 and CN4. This will provide the required data necessary for an adequate evaluation of the site. It will also satisfy the intended purpose of the resampling, and that is, to provide new data for the initially rejected parameters.

FEB 2 . 1991

3. For this particular sampling episode the required field blank analysis for the PCBs parameter will be waived, since this parameter has been added subsequent to the field blank collection.

If you have any questions, please call John P. Scott of my staff at (209) 292-9880.

Very truly yours,

Thomas Sherman

Thomas Sherman, Chief
Bureau of Hazardous Waste Engineering

EP58/dbm
c: Ellen Doering, USEPA, Region II
Denise Rude, BEMQA
Robert Hayton, BFCM
Vincent Krisak, BCE
Joseph M. Garzio, JACA Corp.

DOCUMENT: JACA
FOLDER: CFDMOB

APPENDIX C

R

Colts Neck Analytical Results
May 14, 1991

Parameter	Sample ID Numbers							
	CN-1	CN-2	CN-2.2	CN-2.3	CN-3	CN-4	CN-4.2	BL-1
CHROMIUM	70.1	95.4	110.0	79.4	145.0	78.1	75.6	2.0
LEAD	3.5	2.3	3.0	2.5	4.6	4.4	4.2	1.0
NICKEL	1.3	1.3	1.6	1.7	2.3	1.6	1.4	3.0
VANADIUM	32.2	45.8	45.0	35.0	57.6	35.3	35.8	1.0
ZINC	8.5	8.5	10.4	9.4	13.3	13.6	10.9	14.0
ACETONE	21.0	24.0	34.0	23.0		2.0 (J)	2.0 (J)	
METHYLENE CHLORIDE	2.0 (J)	2.0 (J)	2.0 (J)	2.0 (J)				
TOLUENE				1.0 (J)				
TPHC		18.5	20.8	32.2				1.1
1,1-DICHLOROETHENE				2.0 (J)				
bis(2-Ethylhexyl)Phthalate						38.0 (J)	38.0 (J)	1.0 (J)
*1,1,2-Trichloro-1,2,2-Trifluoroethane			16.0	16.0		17.0		

* Tentatively Identified Compounds

All results are in mg/kg
Analysis dates 2/8/91 to 2/25/91

APPENDIX D

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CN 1 2/4

b Name: QC_INC Contract: COLTS_NECK

b Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 1_____

trix (soil/water): SOIL_ Lab Sample ID: 337963____

vel (low/med): LOW__ Date Received: 02/05/91

Solids: _85.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__		_		NR
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	70.1	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	3.5	_		F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___	1.3	B		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_	32.2	_		P_
7440-66-6	Zinc____	8.5	_		P_
_____	Cyanide__		_		NR
_____	_____		_		__

or Before: BROWN____ Clarity Before: _____ Texture: SANDY_

or After: OPAQUE___ Clarity After: CLEAR_ Artifacts: _____

ments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-1

ab Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

atrix: (soil/water) SOIL Lab Sample ID: 337963

ample wt/vol: 5.0 (g/mL) G Lab File ID: >F217G

evel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 14.84 Date Analyzed: 02/17/91

olumn: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	21	
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
C06495

CN_1_2-4

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337963

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 337963

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-Chloroisopropyl)Ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN_1_2-4 000496

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337963

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 337963

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
103-33-3	Azobenzene (2)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	770	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-1

Lab Name: QC Inc. Contract: JACA CORP.

Lab Code: 77166 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 337963

Sample wt/vol: 30.05g (g/ml) 6ml Lab File ID: FB18P16

Level: (low/med) Low Date Received: 02/05/91

% Moisture: not dec. 14.90 dec. Date Extracted: 02/11/91

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 02/18/91

GPC Cleanup: (Y/N N PH Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/kg) ug/Kg

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	94.	U
11104-28-2	Aroclor-1221	94.	U
11141-16-5	Aroclor-1232	94.	U
53469-22-9	Aroclor-1242	94.	U
12672-29-6	Aroclor-1248	94.	U
11097-69-1	Aroclor-1254	190.	U
11096-82-5	Aroclor-1260	190.	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: CN_1_2-4

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337963

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 337963

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 15 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.23	610	J
2.	UNKNOWN	2.93	510	BJ
3.	UNKNOWN	3.97	4300	J
4.	UNKNOWN ALKANE	4.38	200	BJ
5.	UNKNOWN ALKANE	4.63	170	J
6.	UNKNOWN ALKANE	4.93	200	BJ
7.	UNKNOWN KETONE	7.03	510	BJ

U.S. EPA - CLP

000015

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CN 2 2/4

b Name: OC_INC Contract: COLTS_NECK

b Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 1_____

trix (soil/water): SOIL_ Lab Sample ID: 337964____

vel (low/med): LOW__ Date Received: 02/05/91

Solids: _81.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__				NR
7440-39-3	Barium___				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__				NR
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	95.4			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron____				NR
7439-92-1	Lead____	2.3			F_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___	1.3	B		P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___				NR
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_	45.8			P_
7440-66-6	Zinc____	8.5			P_
	Cyanide__				NR

lor Before: BROWN____ Clarity Before: _____ Texture: SANDY_

lor After: OPAQUE___ Clarity After: CLEAR_ Artifacts: _____

mments:

FORM I - IN

7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-2

) Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

:rix: (soil/water) SOIL Lab Sample ID: 337964

:ple wt/vol: 5.0 (g/mL) G Lab File ID: >F217H

:el: (low/med) LOW Date Received: 02/05/91

:oisture: not dec. 18.85 Date Analyzed: 02/17/91

:umn: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	24	
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
C00528

CN_2_2-4

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337964 RERUN

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 337964R

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 19 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/25/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 0.99

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	400	U
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl Alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
39638-32-9	bis(2-Chloroisopropyl)Ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-2

Lab Name: QC Inc. Contract: JACA CORP.

Lab Code: 77166 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 337964

Sample wt/vol: 30.05g (g/ml) 6ml Lab File ID: FB18P17

Level: (low/med) Low Date Received: 02/05/91

% Moisture: not dec. 18.90 dec. Date Extracted: 02/11/91

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 02/18/91

GPC Cleanup: (Y/N N PH Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/Kg	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	98.	U
11104-28-2	Aroclor-1221	98.	U
11141-16-5	Aroclor-1232	98.	U
53469-22-9	Aroclor-1242	98.	U
12672-29-6	Aroclor-1248	98.	U
11097-69-1	Aroclor-1254	200.	U
11096-82-5	Aroclor-1260	200.	U

QC Inc.

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INORGANIC ANALYSIS SHEET

	SAMPLE I.D.
Lab Name: QC Inc.	
Lab Code: 77166	CN 2 2-4

Contract/ P.O. #: 3408

Matrix (Soil/Water): Soil

Lab Sample ID: 337964

Level (low/med): Low

Date Received: 02/05/91

% Solids: 81.1

Analyte	Sample Concentration Units	C	D	M
Petroleum Hydrocarbons	18.5 mg/kg			C

Color Before: brown

Clarity Before:

Color After: brown

Clarity After:

Texture: Medium

Comments: no anomalies

Page - 1.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: CN_2_2-4

Name: QC INC. Contract: JACA

Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

rix: (soil/water) SOIL Lab Sample ID: 337964 RERUN

ple wt/vol: 30.0 (g/mL) G Lab File ID: 337964R

el: (low/med) LOW Date Received: 02/05/91

oisture: not dec. 19 dec. ____ Date Extracted: 02/09/91

raction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/25/91

Cleanup: (Y/N) N pH: ____ Dilution Factor: 0.99

ber TICs found: 15

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ORGANIC ACID	2.18	1300	BJ
2. 67-66-3	METHANE, TRICHLORO-	2.28	3700	BJ
3.	UNKNOWN AROMATIC	2.45	220	J
4. 64-19-7	ACETIC ACID (ACN)	2.88	760	J
5. 2916-31-6	1,3-DIOXOLANE, 2,2-DIMETHYL-	2.97	410	J
6. 625-86-5	FURAN, 2,5-DIMETHYL-	3.17	1300	BJ
7.	UNKNOWN	4.08	690	BJ
8.	UNKNOWN KETONE	5.33	770	BJ
9.	UNKNOWN	6.80	1300	BJ
10.	UNKNOWN ALKANE	7.08	1200	J
11.	UNKNOWN	7.17	3800	J
12.	UNKNOWN ALKANE	7.52	220	J
13. 108-93-0	CYCLOHEXANOL (ACN)	8.03	310	BJ
14.	UNKNOWN	9.90	330	J
15.	UNKNOWN	10.52	470	J

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000016

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CN 2.2 2/4

b Name: OC_INC Contract: COLTS_NECK

b Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 1_____

trix (soil/water): SOIL_ Lab Sample ID: 337965____

vel (low/med): LOW__ Date Received: 02/05/91

Solids: _81.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__				NR
7440-39-3	Barium___				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__				NR
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	110			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	3.0			F_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___	1.6	B		P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___				NR
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_	45.0			P_
7440-66-6	Zinc_____	10.4			P_
_____	Cyanide__				NR

or Before: BROWN____ Clarity Before: _____ Texture: SANDY_

or After: OPAQUE___ Clarity After: CLEAR_ Artifacts: _____

ments:

FORM I - IN

7/88

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-2.2

ab Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

atrix: (soil/water) SOIL Lab Sample ID: 337965

ample wt/vol: 5.0 (g/mL) G Lab File ID: >F217I

evel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 18.24 Date Analyzed: 02/17/91

olumn: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	34	
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
CN_2_2_2-4_RE

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337965 RERUN

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 337965R

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/16/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl Alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
39638-32-9	bis(2-Chloroisopropyl)Ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN_2_2_2-4_RE

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337965 RERUN

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 337965R

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/16/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
103-33-3	Azobenzene (2)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

QC Inc

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INORGANIC ANALYSIS SHEET

Lab Name: QC Inc.

Lab Code: 77166

SAMPLE I.D.

CN 2.2 2/4

Contract/ P.O. #: JACA

Matrix (Soil/Water): Soil

Lab Sample ID: 337965

Level (low/med): Low

Date Received: 02/05/91

% Solids: 81.8

Analyte	Sample Concentration Units	C	Q	M
Petroleum Hydrocarbons	20.8 mg/kg			C

Color Before: Brown

Clarity Before:

Color After: Brown

Clarity After:

Texture: Medium

Comments: No Artifacts

Chlorofluoromethane
Yg/kg 000332

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CN-2.2

Lab Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

Matrix: (soil/water) SOIL Lab Sample ID: 337965

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >F2126

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 18.24 Date Analyzed: 02/22/91

Column: (pack/cap) PACK Dilution Factor: 1

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	EST. CONC.	Q
	1,1,2-Trichloro-1,2,2-Trifluoroethane	16.0	

C00595

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CN_2_2_2-4

b Name: QC INC. Contract: JACA

b Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

trix: (soil/water) SOIL Lab Sample ID: 337965

mple wt/vol: 30.2 (g/mL) G Lab File ID: 337965

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

traction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

C Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

mber TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.17	860	BJ
2.	UNKNOWN	2.83	890	BJ
3.	UNKNOWN	3.83	5000	BJ
4.	UNKNOWN ALKANE	4.18	370	BJ
5.	UNKNOWN	4.27	280	J
6.	UNKNOWN ALKANE	4.42	230	BJ
7.	UNKNOWN ALKANE	4.48	240	J
8.	UNKNOWN ALKANE	4.70	310	BJ
9.	UNKNOWN KETONE	6.93	230	BJ

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
CN_2_2_2-4_RE

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337965 RERUN

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 337965R

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/16/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.18	880	BJ
2.	UNKNOWN	2.88	840	BJ
3.	UNKNOWN	3.90	4400	BJ
4.	UNKNOWN ALKANE	4.27	330	BJ
5.	UNKNOWN	4.33	260	J
6.	UNKNOWN ALKANE	4.52	240	BJ
7.	UNKNOWN ALKANE	4.57	230	J
8.	UNKNOWN ALKANE	4.80	310	J
9.	UNKNOWN KETONE	6.98	210	BJ

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CN 2.3 2/4

ıb Name: QC_INC Contract: COLTS_NECK

ıb Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 1_____

ıtrix (soil/water): SOIL_ Lab Sample ID: 337966____

ıvel (low/med): LOW__ Date Received: 02/05/91

Solids: _84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__				NR
7440-39-3	Barium___				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__				NR
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	79.4			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron_____				NR
7439-92-1	Lead_____	2.5			F_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___	1.7	B		P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___				NR
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_	35.0			P_
7440-66-6	Zinc_____	9.4			P_
_____	Cyanide__				NR

lor Before: BROWN____ Clarity Before: _____ Texture: SANDY_

lor After: OPAQUE___ Clarity After: CLEAR_ Artifacts: _____

mments:

FORM I - IN

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-2.3

ab Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

atrix: (soil/water) SOIL Lab Sample ID: 337966

ample wt/vol: 5.0 (g/mL) G Lab File ID: >F217J

evel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 16.04 Date Analyzed: 02/17/91

olumn: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	23	
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	2	J
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN_2_3_2-4

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337966

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 337966

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
103-33-3	Azobenzene (2)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
CC0001

CN_2_3_2-4

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337966

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 337966

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-Chloroisopropyl)Ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

QC Inc.

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INORGANIC ANALYSIS SHEET

	SAMPLE I.D.
Lab Name: QC Inc.	
Lab Code: 77166	CN 2.5 1.4

Contract/ P.O. #: JA-CA

Matrix (Soil/Water): Soil

Lab Sample ID: 337966

Level (low/med): Low

Date Received: 02/05/91

% Solids: 84.0

Analyte	Sample Concentration Units	C	P	M
Petroleum Hydrocarbons	37.2 mg/kg			D

Color Before: Brown

Clarity Before:

Color After: Brown

Clarity After:

Texture: Medium

Comments: No interference

FORM - I

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CN-2.3

b Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

trix: (soil/water) SOIL Lab Sample ID: 337966

mple wt/vol: 5.0 (g/mL) G Lab File ID: >F2124

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 16.04 Date Analyzed: 02/22/91

lumn: (pack/cap) PACK Dilution Factor: 1

mber TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	EST. CONC.	Q
	1,1,2-Trichloro-1,2,2-Trifluoroethane	16.0	

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
000589
CN_2_3_2-4

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337966

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 337966

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 16 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.25	660	J
2.	UNKNOWN	2.93	690	BJ
3.	UNKNOWN	3.98	3900	J
4.	UNKNOWN ALKANE	4.35	300	BJ
5.	UNKNOWN	4.40	190	J
6.	UNKNOWN ALKANE	4.58	250	BJ
7.	UNKNOWN ALKANE	4.65	170	J
8.	UNKNOWN ALKANE	4.87	250	BJ
9.	UNKNOWN KETONE	7.02	270	BJ

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CN 3 2/4

Name: CC_INC Contract: COLTS_NECK

Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 1_____

rix (soil/water): SOIL_ Lab Sample ID: 337967____

el (low/med): LOW__ Date Received: 02/05/91

olids: _82.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__				NR
7440-39-3	Barium___				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__				NR
7440-70-2	Calcium__				NR
7440-47-3	Chromium_	145			P_
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron____				NR
7439-92-1	Lead____	4.6			F_
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___	2.3	B		P_
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___				NR
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_	57.6			P_
7440-66-6	Zinc____	13.3			P_
	Cyanide__				NR

or Before: BROWN____ Clarity Before: _____ Texture: SANDY_

or After: OPAQUE___ Clarity After: CLEAR_ Artifacts: _____

ments:

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-3

Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

rix: (soil/water) SOIL Lab Sample ID: 337967

ple wt/vol: 5.0 (g/mL) G Lab File ID: >F1613

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 17.71 Date Analyzed: 02/17/91

umn: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN 009698

b Name: QC INC. Contract: JACA

b Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

trix: (soil/water) SOIL Lab Sample ID: 337967

mple wt/vol: 30.2 (g/mL) G Lab File ID: 337967

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

traction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

C Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl Alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
39638-32-9	bis(2-Chloroisopropyl)Ether	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C90589
CN_3_24

ab Name: QC INC. Contract: JACA

ab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

atrix: (soil/water) SOIL Lab Sample ID: 337967

ample wt/vol: 30.2 (g/mL) G Lab File ID: 337967

evel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

PC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
103-33-3	Azobenzene (2)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-3

Lab Name: QC Inc. Contract: JACA CORP.

Lab Code: 77166 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 337967

Sample wt/vol: 30.14g (g/ml) 6ml Lab File ID: FB18P18

Level: (low/med) Low Date Received: 02/05/91

% Moisture: not dec. 17.70 dec. Date Extracted: 02/11/91

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 02/18/91

GPC Cleanup: (Y/N N PH Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	97.	U
11104-28-2	Aroclor-1221	97.	U
11141-16-5	Aroclor-1232	97.	U
53469-21-9	Aroclor-1242	97.	U
12672-29-6	Aroclor-1248	97.	U
11097-69-1	Aroclor-1254	190.	U
11096-82-5	Aroclor-1260	190.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CN-3

Lab Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

Matrix: (soil/water) SOIL Lab Sample ID: 337967

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >F2114

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 17.71 Date Analyzed: 02/22/91

Column: (pack/cap) PACK Dilution Factor: 1

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	EST. CONC.	Q
	1,1,2-Trichloro-1,2,2-Trifluoroethane	6.2	

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
000706
CN_3_24

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: 337967

Sample wt/vol: 30.2 (g/mL) G Lab File ID: 337967

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.22	420	BJ
2.	UNKNOWN	2.90	400	BJ
3.	UNKNOWN	4.13	2200	BJ
4.	UNKNOWN KETONE	7.03	180	BJ

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
CN_3_24_RERUN

ab Name: QC INC. Contract: JACA

ab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

atrix: (soil/water) SOIL Lab Sample ID: 337967 RERUN

ample wt/vol: 30.2 (g/mL) G Lab File ID: 337967R

evel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 18 dec. ____ Date Extracted: 02/09/91

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/16/91

PC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

umber TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.15	460	J
2.	UNKNOWN	4.03	2500	BJ
3.	UNKNOWN	7.95	670	J

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000019

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CN 4 2/4

.b Name: QC_INC Contract: COLTS_NECK

.b Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 1_____

.trix (soil/water): SOIL_ Lab Sample ID: 337968____

.vel (low/med): LOW__ Date Received: 02/05/91

Solids: _87.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__		_		NR
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	78.1	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	4.4	_		F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___	1.6	B		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_	35.3	_		P_
7440-66-6	Zinc____	13.6	_		P_
_____	Cyanide__		_		NR
_____	_____		_		__

lor Before: BROWN____ Clarity Before: _____ Texture: SANDY_

lor After: OPAQUE___ Clarity After: CLEAR_ Artifacts: _____

mments:

FORM I - IN

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-4

Lab Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

Matrix: (soil/water) SOIL Lab Sample ID: 337968

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >F1614

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. 12.31 Date Analyzed: 02/17/91

Column: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN-4_SOLID

Name: QC INC. Contract: JACA

Code: Case No.: JACA SAS No.: SDG No.: 337963

rix: (soil/water) SOIL Lab Sample ID: 338244

ple wt/vol: 30.1 (g/mL) G Lab File ID: 338244

el: (low/med) LOW Date Received: 02/05/91

oisture: not dec. 12 dec. Date Extracted: 02/09/91

traction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl Alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
39638-32-9	bis(2-Chloroisopropyl)Ether	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN-4_SOLID

ab Name: QC INC. Contract: JACA

ab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

atrix: (soil/water) SOIL Lab Sample ID: 338244

mple wt/vol: 30.1 (g/mL) G Lab File ID: 338244

evel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 12 dec. ____ Date Extracted: 02/09/91

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

PC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-10-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
103-33-3	Azobenzene (2)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	750	U
117-81-7	bis(2-Ethylhexyl)Phthalate	38	J
207-08-9	Benzo(k)Fluoranthene	370	U
193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	370	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-4

Lab Name: QC Inc. Contract: JACA CORP.

Lab Code: 77166 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 337968

Sample wt/vol: 30.01g (g/ml) 6ml Lab File ID: FB18P20

Level: (low/med) Low Date Received: 02/05/91

% Moisture: not dec. 12.30 dec. Date Extracted: 02/11/91

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 02/18/91

GPC Cleanup: (Y/N N PH Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/Kg	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	91.	U
11104-28-2	Aroclor-1221	91.	U
11141-16-5	Aroclor-1232	91.	U
53469-22-9	Aroclor-1242	91.	U
12672-29-6	Aroclor-1248	91.	U
11097-69-1	Aroclor-1254	180.	U
11096-82-5	Aroclor-1260	180.	U

006365

EPA SAMPLE NO.

CN-4

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

b Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

trix: (soil/water) SOIL Lab Sample ID: 337968

ple wt/vol: 5.0 (g/mL) G Lab File ID: >F2125

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 12.31 Date Analyzed: 02/22/91

lumn: (pack/cap) PACK Dilution Factor: 1

ber TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	EST. CONC.	Q
	1,1,2-Trichloro-1,2,2-Trifluoroethane	17.0	

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
CN_4_2-4

Name: QC INC. Contract: JACA

Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

rix: (soil/water) SOIL Lab Sample ID: 337968 RERUN

ple wt/vol: 30.0 (g/mL) G Lab File ID: 337968R

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 12 dec. ____ Date Extracted: 02/09/91

raction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/25/91

C Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

ber TICs found: 13

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ORGANIC ACID	2.18	760	BJ
2. 67-66-3	METHANE,TRICHLORO-	2.28	5000	BJ
3.	UNKNOWN	2.90	200	BJ
4.	UNKNOWN	4.10	810	BJ
5.	UNKNOWN KETONE	5.37	780	BJ
6.	UNKNOWN	6.68	7400	BJ
7.	UNKNOWN ALKANE	7.10	390	BJ
8.	UNKNOWN ALKANE	7.17	210	BJ
9.	UNKNOWN ALKANE	7.30	310	BJ
10.	UNKNOWN ALKANE	7.37	170	BJ
11.	UNKNOWN	9.42	780	BJ
12.	UNKNOWN	9.70	640	J
13.	UNKNOWN	10.44	350	J

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CN 4.2 2/4

b Name: QC_INC Contract: COLTS_NECK

b Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 1_____

trix (soil/water): SOIL_ Lab Sample ID: 338244____

vel (low/med): LOW__ Date Received: 02/05/91

Solids: _87.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_		_		NR
7440-38-2	Arsenic__		_		NR
7440-39-3	Barium___		_		NR
7440-41-7	Beryllium		_		NR
7440-43-9	Cadmium__		_		NR
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	75.6	_		P_
7440-48-4	Cobalt___		_		NR
7440-50-8	Copper___		_		NR
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	4.2	_		F_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__		_		NR
7440-02-0	Nickel___	1.4	B		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_		_		NR
7440-22-4	Silver___		_		NR
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_		_		NR
7440-62-2	Vanadium_	35.8	_		P_
7440-66-6	Zinc____	10.9	_		P_
_____	Cyanide__		_		NR
_____	_____		_		__

or Before: BROWN____ Clarity Before: _____ Texture: SANDY_

or After: OPAQUE___ Clarity After: CLEAR_ Artifacts: _____

ments:

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-4.2

Code: NONE Case No.: JACA SAS No.: NONE SDG No.: CN-1

rix: (soil/water) SOIL Lab Sample ID: 338244

ple wt/vol: 5.0 (g/mL) G Lab File ID: >F1701

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 12.10 Date Analyzed: 02/17/91

lumn: (pack/cap) PACK Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4.2
CN-4_SOLID

Name: QC INC. Contract: JACA

Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

rix: (soil/water) SOIL Lab Sample ID: 338244

ple wt/vol: 30.1 (g/mL) G Lab File ID: 338244

el: (low/med) LOW Date Received: 02/05/91

oisture: not dec. 12 dec. ____ Date Extracted: 02/09/91

raction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl Alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
39638-32-9	bis(2-Chloroisopropyl)Ether	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic Acid	1800	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN-4 SOLID

b Name: QC INC. Contract: JACA

b Code: Case No.: JACA SAS No.: SDG No.: 337963

trix: (soil/water) SOIL Lab Sample ID: 338244

mple wt/vol: 30.1 (g/mL) G Lab File ID: 338244

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 12 dec. Date Extracted: 02/09/91

traction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

C Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-10-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
103-33-3	Azobenzene (2)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	750	U
117-81-7	bis(2-Ethylhexyl)Phthalate	38	J
207-08-9	Benzo(k)Fluoranthene	370	U
193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	370	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CN-4.2

Lab Name: QC Inc. Contract: JACA CORP.

Lab Code: 77166 Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 338244

Sample wt/vol: 30.10g (g/ml) 6ml Lab File ID: FB18P15

Level: (low/med) Low Date Received: 02/05/91

% Moisture: not dec. 12.10 dec. Date Extracted: 02/11/91

Extraction: (SepF/Cont/Sonc) Sonc Date Analyzed: 02/18/91

GPC Cleanup: (Y/N N PH Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/Kg	Q
319-84-6	alpha-BHC		
319-85-7	beta-BHC		
319-86-8	delta-BHC		
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin ketone		
5103-71-9	alpha-Chlordane		
5103-74-2	gamma-Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016	91.	U
11104-28-2	Aroclor-1221	91.	U
11141-16-5	Aroclor-1232	91.	U
53469-22-9	Aroclor-1242	91.	U
12672-29-6	Aroclor-1248	91.	U
11097-69-1	Aroclor-1254	180.	U
11096-82-5	Aroclor-1260	180.	U

Benzo

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
CLG507

CN-4_SOLID

b Name: QC INC. Contract: JACA

b Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

trix: (soil/water) SOIL Lab Sample ID: 338244

mple wt/vol: 30.1 (g/mL) G Lab File ID: 338244

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. 12 dec. ____ Date Extracted: 02/09/91

traction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

C Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

mber TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.20	740	BJ
2.	UNKNOWN	2.88	600	BJ
3.	UNKNOWN	2.95	180	BJ
4.	UNKNOWN	3.87	4600	BJ
5.	UNKNOWN ALKANE	4.27	310	BJ
6.	UNKNOWN ALKANE	4.33	250	J
7.	UNKNOWN ALKANE	4.50	240	BJ
8.	UNKNOWN ALKANE	4.57	240	BJ
9.	UNKNOWN ALKANE	4.78	260	BJ
10.	UNKNOWN KETONE	6.98	550	BJ

U.S. EPA - CLP

000012

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BL-1 2/4

Name: QC_INC Contract: COLTS_NECK

Code: Case No.: SAS No.: SDG No.: 1

rix (soil/water): WATER Lab Sample ID: 338245

el (low/med): LOW Date Received: 02/05/91

olids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	14.0	B		P
	Cyanide				NR

or Before: CLEAR Clarity Before: CLEAR Texture:

or After: CLEAR Clarity After: CLEAR Artifacts:

ments:

C00470

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BL-1_2-4_LIQ

b Name: QC INC. Contract: JACA

b Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

trix: (soil/water) WATER Lab Sample ID: 338245

mple wt/vol: 1000 (g/mL) ML Lab File ID: 338245

vel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. ____ dec. ____ Date Extracted: 02/07/91

traction: (SepF/Cont/Sonc) CONT Date Analyzed: 02/08/91

C Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BL-1_2-4_LIQ

ab Name: QC INC. Contract: JACA

ab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

atrix: (soil/water) WATER Lab Sample ID: 338245

ample wt/vol: 1000 (g/mL) ML Lab File ID: 338245

evel: (low/med) LOW Date Received: 02/05/91

Moisture: not dec. ____ dec. ____ Date Extracted: 02/07/91

xtraction: (SepF/Cont/Sonc) CONT Date Analyzed: 02/08/91

PC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
103-33-3	Azobenzene (2)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	J
207-08-9	Benzo(k)Fluoranthene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

3 10. Benzo

000492

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BL-1_2-4_LIQ

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) WATER Lab Sample ID: 338245

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 338245

Level: (low/med) LOW Date Received: 02/05/91

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/07/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 02/08/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.75	9.1	BJ

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

AQ_BLK_2-7-91

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) WATER Lab Sample ID: BWB0207R

Sample wt/vol: 1000 (g/mL) ML Lab File ID: BWB0207R

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/07/91

Extraction: (SepF/Cont/Sonc) CONT Date Analyzed: 02/21/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.82	13	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
C01306
SOIL_BLK_2-9

Name: QC INC. Contract: JACA

Code: Case No.: JACA SAS No.: SDG No.: 337963

trix: (soil/water) SOIL Lab Sample ID: BSD0209R

ple wt/vol: 30.0 (g/mL) G Lab File ID: BSD0209R

vel: (low/med) LOW Date Received:

Moisture: not dec. dec. Date Extracted: 02/09/91

traction: (SepF/Cont/Sonc) Date Analyzed: 02/25/91

Cleanup: (Y/N) N pH: Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	330	U
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-Chloroisopropyl)Ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
65-85-0	Benzoic Acid	1600	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

QC Inc.

1205 INDUSTRIAL HIGHWAY • P.O. BOX 514 • SOUTHAMPTON, PA 18966-0514 • (215) 355-3900

U.S. EPA - CLP

INORGANIC ANALYSIS SHEET

	SAMPLE I.I.
Lab Name: QC Inc.	BL-1
Lab Code: 771ee	2/5/91

Contract/ P.O. #: JACA

Matrix (Soil/Water): Water

Lab Sample ID: 338245

Level (low/med): Low

Date Received: 2/5/91

% Solids:

Analyte	Sample Concentration Units	C	D	M
Petroleum Hydrocarbons	110. mg/l			C

Color Before: colorless

Clarity Before: clear

Color After: colorless

Clarity After: clear

Artifacts:

Comments:

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SOIL_BLK_2-9

Name: QC INC. Contract: JACA

Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: BSD0209R

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BSD0209R

Level: (low/med) LOW Date Received: _____

Moisture: not dec. ____ dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 02/25/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-10-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
103-33-3	Azobenzene (2)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
92-87-5	Benzidine	1600	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	330	U
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

Benzo

001324

EPA SAMPLE NO.

SOIL_BLK_2-9

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QC INC. Contract: JACA

Lab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

Matrix: (soil/water) SOIL Lab Sample ID: BSD0209R

Sample wt/vol: 30.0 (g/mL) G Lab File ID: BSD0209R

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ dec. ____ Date Extracted: 02/09/91

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 02/25/91

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

Number TICs found: 17

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ORGANIC ACID	2.18	2000	J
2. 67-66-3	METHANE,TRICHLORO-	2.28	11000	J
3.	UNKNOWN	2.88	140	J
4. 625-86-5	FURAN,2,5-DIMETHYL	3.17	6500	J
5.	UNKNOWN	4.08	1600	J
6.	UNKNOWN KETONE	5.35	1700	J
7.	UNKNOWN	5.47	270	J
8.	UNKNOWN	6.48	210	J
9.	UNKNOWN	6.73	14000	J
10.	UNKNOWN ALKANE	7.12	930	J
11.	UNKNOWN ALKANE	7.18	670	J
12.	UNKNOWN ALKANE	7.32	740	J
13.	UNKNOWN ALKANE	7.38	550	J
14. 108-93-0	CYCLOHEXANOL (ACN)	8.02	410	J
15.	UNKNOWN	9.44	670	J
16.	UNKNOWN ORGANIC ACID	17.10	340	J
17.	UNKNOWN	17.22	280	J

Bm>0

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
001256
SOIL_BLK_29

ab Name: QC INC. Contract: JACA

ab Code: _____ Case No.: JACA SAS No.: _____ SDG No.: 337963

atrix: (soil/water) SOIL Lab Sample ID: BSB0209

mple wt/vol: 30.0 (g/mL) G Lab File ID: BSB0209

evel: (low/med) LOW Date Received: _____

Moisture: not dec. ____ dec. ____ Date Extracted: 02/09/91

xtraction: (SepF/Cont/Sonc) SONC Date Analyzed: 02/15/91

PC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.00

umber TICs found: 14

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	625-86-5	FURAN, 2,5-DIMETHYL	1.87	4000	J
2.		UNKNOWN	2.40	1300	J
3.		UNKNOWN	3.17	1200	J
4.		UNKNOWN	3.23	280	J
5.		UNKNOWN	3.40	160	J
6.		UNKNOWN ALKANE	4.07	230	J
7.		UNKNOWN	4.32	8800	J
8.		UNKNOWN ALKANE	4.75	670	J
9.		UNKNOWN	4.82	450	J
10.		UNKNOWN ALKANE	5.02	570	J
11.		UNKNOWN ALKANE	5.08	450	J
12.		UNKNOWN ALKANE	5.27	570	J
13.	108-93-0	CYCLOHEXANOL (ACN)	5.75	310	J
14.		UNKNOWN KETONE	7.17	450	J