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INSTALLATION RESTORATION PROGRAM PHASE II-CONFIRMATION/QUANTIFICATION STAGE 1

FOR AIR FORCE PLANT PJKS WATERTON, COLORADO

VOLUME II

PREPARED BY:
ENGINEERING-SCIENCE
DESIGN • RESEARCH • PLANNING
1100 STOUT STREET, SUITE 1100
DENVER, COLORADO 80204

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OCTOBER 1986

FINAL REPORT FOR PERIOD OCTOBER 1985 TO OCTOBER 1986

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PREPARED FOR:
HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION
FACILITIES MANAGEMENT DIVISION (ASD/PMDA)
OHIO 45433-6503

AND

HEADQUARTERS AIR FORCE SYSTEMS COMMAND
COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB)
ANDREWS AIR FORCE BASE, D.C. 20334-5000

UNITED STATES AIR FORCE
OCCUPATIONAL & ENVIRONMENTAL HEALTH
LABORATORY (USAFOEHL)
TECHNICAL SERVICES DIVISION (TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

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FOR

AIR FORCE PLANT PJKS,
WATERTON, COLORADO

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INSTALLATION RESTORATION PROGRAM
PHASE II - CONFIRMATION/QUANTIFICATION
STAGE 1

Final Report
For

Air Force Plant PJKS,
Waterton, Colorado

Headquarters Aeronautical Systems Division
Facilities Management Division (ASD/PMDA)
Wright-Patterson AFB,
Ohio 45433-6503

And

Headquarters Air Force Systems Command
Command Bioenvironmental Engineer (AFSC/SGPB)
Andrews Air Force Base, D.C. 20334-5000

United States Air Force
Occupational & Environmental Health Laboratory (USAFOEHL)
Technical Services Division (TS)
Brooks Air Force Base, Texas 78235-5501

October 1986

PREPARED BY
Engineering-Science, Inc.
Denver, Colorado

USAF CONTRACT NO. F33615-84-D-4403, DELIVERY ORDER NO. 0012

USAFOEHL TECHNICAL PROGRAM MANAGER
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BROOKS AIR FORCE BASE, TEXAS 78235-5501

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IRP Contamination
Hazardous Waste Phase II

19 ABSTRACT (Continue on reverse if necessary and identify by block number)

A field investigation was conducted to confirm or deny the presence of hazardous wastes at eight sites at Air Force Plant PJKS near Waterton, Colorado. Activities at the plant that could have generated hazardous wastes include the development and testing of rocket engines. The field program included sampling of surface waters, soils, and sediments, and the installation and sampling of eight ground water monitoring wells. Hazardous substances found at the eight sites included TCE and other halocarbons, NDMA (a decomposition product of hydrazine), phenols, and trace amounts of heavy metals, including arsenic, hexavalent chromium, and selenium. Elevated levels of radiation were detected in ground waters downgradient from a landfill known to contain a small amount (25 kilograms) of low-level radioactive magnesium-thorium alloy. Since natural uranium mineralization occurs within the area, the background level of radiation needs to be established before the significance of the measured radiation can be determined. Contamination of soils and sediments was determined to be of low significance because of the low levels of contamination and a lack of pathways for offsite migration. Contamination of surface and ground waters at sites 1, 2, 4, 5, and 11 was judged to be moderately significant because the contaminants occurred at concentrations exceeding standards or guidelines to protect human health, and the potential for contaminant migration exists. Plans for future studies to determine the sources and extent of surface and ground water contamination were developed.

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LABORATORY ANALYSES FOR SAMPLING PROGRAM

Results of Hydrazine and NDMA for all
Samples Analyzed

California Analytical Laboratories, Inc.
2544 Industrial Boulevard • West Sacramento, CA 95691 • (916) 372-1393

January 29, 1986
Lab No's: 23165/23308/
23343/23344/23357/
23410/23470/23517/
23532/23541
PJKS-AF-Denver Project

John Adamson
Engineering Science
57 Executive Park Four, Suite 590
Atlanta, GA 30329

Twenty-two water samples were received in one quart amber bottles and seventy soil/sediment samples were received in one quart mason jars to be analyzed for hydrazine and NDMA (nitrosodimethylamine).

CAL I.D.	SAMPLE I.D.		MATRIX	DATE RECEIVED
23165-1	8-1-SW-1	12/3/85	WATER	12/4/85
-2	8-2-SW-1	12/3/85	WATER	12/4/85
-3	8-1-SD-1	12/3/85	SOIL	12/4/85
-4	8-2-SD-1	12/3/85	SOIL	12/4/85
23308-1	1-ES-3-SS-1	12/13/85	SOIL	12/17/85
-2	1-ES-3-SS-2	12/13/85	SOIL	12/17/85
-3	1-ES-3-SS-3	12/13/85	SOIL	12/17/85
-4	1-ES-3-SS-4	12/13/85	SOIL	12/17/85
-5	1-ES-3-SS-5	12/13/85	SOIL	12/17/85
-6	1-ES-3-SS-6	12/13/85	SOIL	12/17/85
-7	1-ES-3-SS-7	12/13/85	SOIL	12/17/85
-8	1-ES-4-SS-1	12/13/85	SOIL	12/17/85
-9	1-ES-4-SS-2	12/13/85	SOIL	12/17/85
-10	1-ES-4-SS-3	12/13/85	SOIL	12/17/85
-11	1-ES-4-SS-4	12/13/85	SOIL	12/17/85
-12	1-ES-4-SS-5	12/13/85	SOIL	12/17/85
-13	1-ES-4-SS-6	12/13/85	SOIL	12/17/85
-14	1-ES-5-SS-1	12/16/85	SOIL	12/17/85
-15	1-ES-5-SS-2	12/16/85	SOIL	12/17/85
-16	1-ES-5-SS-3	12/16/85	SOIL	12/17/85
-17	1-ES-5-SS-4	12/16/85	SOIL	12/17/85
-18	1-ES-5-SS-5	12/16/85	SOIL	12/17/85
-19	1-ES-5-SS-6	12/16/85	SOIL	12/17/85
23343-1	8-3-SW-1	12/18/85	WATER	12/19/85
-2	8-3-SD-1	12/18/85	SOIL	12/19/85
-3	8-4-SW-1	12/18/85	WATER	12/19/85
-4	8-4-SD-1	12/18/85	SOIL	12/19/85
-5	8-5-SW-1	12/18/85	WATER	12/19/85
-6	8-5-SD-1	12/18/85	SOIL	12/19/85
-7	8-6-SW-1	12/18/85	WATER	12/19/85
-8	8-6-SD-1	12/18/85	SOIL	12/19/85
-9	8-5-SW-2	12/18/85	WATER	12/19/85

This report is for the sole and exclusive use of the client to whom it is addressed.
Samples not destroyed in testing are retained a maximum of thirty (30) days unless otherwise requested.

CAL I.D.	SAMPLE I.D.		MATRIX	DATE RECEIVED
23343-10	8-5-SD-2	12/18/85	SOIL	12/19/85
-11	8-7-SW-1	12/18/85	WATER	12/19/85
-12	8-8-SW-1	12/18/85	WATER	12/19/85
-13	8-7-SD-1	12/18/85	SOIL	12/19/85
-14	8-8-SD-1	12/18/85	SOIL	12/19/85
-15	8-9-SD-1	12/18/85	SOIL	12/19/85
-16	8-10-SD-1	12/18/85	SOIL	12/19/85
-17	8-1-SD-2	12/18/85	SOIL	12/19/85
-18	8-2-SD-2	12/18/85	SOIL	12/19/85
-19	8-1-SW-2	12/18/85	WATER	12/19/85
-20	8-2-SW-2	12/18/85	WATER	12/19/85
-21	8-9-SW-1	12/18/85	WATER	12/19/85
-22	8-10-SW-1	12/18/85	WATER	12/19/85
23344-1	ES-7(1')-SS-1	12/17/85	SOIL	12/19/85
-2	ES-7(3')-SS-2	12/17/85	SOIL	12/19/85
-3	ES-7(6')-SS-3	12/17/85	SOIL	12/19/85
-4	ES-7(10')-SS-4	12/17/85	SOIL	12/19/85
-5	ES-7(15')-SS-5	12/17/85	SOIL	12/19/85
-6	ES-7(20')-SS-6	12/17/85	SOIL	12/19/85
-7	ES-6(1')-SS-1	12/17/85	SOIL	12/19/85
-8	ES-6(3')-SS-2	12/17/85	SOIL	12/19/85
-9	ES-6(6')-SS-3	12/17/85	SOIL	12/19/85
-10	ES-6(10')-SS-4	12/17/85	SOIL	12/19/85
-11	ES-6(15')-SS-5	12/17/85	SOIL	12/19/85
-12	ES-6(20')-SS-6	12/17/85	SOIL	12/19/85
23357-1	7-1-SD-1	12/19/85	SOIL	12/20/85
-2	7-2-SD-1	12/19/85	SOIL	12/20/85
-3	7-3-SD-1	12/19/85	SOIL	12/20/85
-4	ES-9-SS-1	12/19/85	SOIL	12/20/85
-5	ES-9-SS-2	12/19/85	SOIL	12/20/85
-6	ES-9-SS-3	12/19/85	SOIL	12/20/85
-7	ES-9-SS-4	12/19/85	SOIL	12/20/85
-8	ES-9-SS-5	12/19/85	SOIL	12/20/85
-9	7-4-SD-1	12/19/85	SOIL	12/20/85
-10	7-5-SD-1	12/19/85	SOIL	12/20/85
-11	7-6-SD-1	12/19/85	SOIL	12/20/85
-12	7-7-SD-1	12/19/85	SOIL	12/20/85
-13	7-8-SD-1	12/19/85	SOIL	12/20/85
-14	7-9-SD-1	12/19/85	SOIL	12/20/85

CAL I.D.	SAMPLE I.D.		MATRIX	DATE RECEIVED
23410-1	ES-11-SS-1	12-30-85	SOIL	01/02/86
-2	ES-11-SS-2	12-30-85	SOIL	01/02/86
-3	ES-11-SS-3	12-30-85	SOIL	01/02/86
-4	ES-11-SS-4	12-30-85	SOIL	01/02/86
-5	ES-11-SS-5	12-30-85	SOIL	01/02/86
-6	ES-13-SS-1	12-31-85	SOIL	01/02/86
-7	ES-13-SS-2	12-31-85	SOIL	01/02/86
-8	ES-13-SS-3	12-31-85	SOIL	01/02/86
-9	ES-14-SS-1	12-31-85	SOIL	01/02/86
-10	ES-14-SS-2	12-31-85	SOIL	01/02/86
-11	ES-14-SS-3	12-31-85	SOIL	01/02/86
-12	ES-14-SS-4	12-31-85	SOIL	01/02/86
-13	ES-14-SS-5	12-31-85	SOIL	01/02/86
23470-1	1-SW-1,SITE 1	01-09-86	WATER	01/10/86
-2	1-SD-1,SITE 1	01-09-86	SOIL	01/10/86
23517-1	MW-1,GW-1	01-14-86	WATER	01/15/86
-2	MW-2,GW-1	01-14-86	WATER	01/15/86
23532-1	MW-8-10MW-8,GW-1	01-15-86	WATER	01/16/86
-2	MW-3-2-2MW-3,GW-1	01-15-86	WATER	01/16/86
-3	MW-6-4-2MW-6,GW-1	01-15-86	WATER	01/16/86
23541-1	MW-4,4-MW-4,GW-1	01-16-86	WATER	01/17/86
-2	MW-5,4-MW-5,GW-1	01-16-86	WATER	01/17/86
-3	MW-7,2-MW-7,GW-1	01-16-86	WATER	01/17/86

Analysis of sample set 23165 was cancelled by Tim Shangraw on 12/23/86.

METHODS

A. NDMA (nitrosodimethylamine).

1. Water Samples. Sample aliquots were extracted, concentrated, and analyzed using EPA method 607.
2. Soil/sediment Samples. Sub-samples (10g) were extracted with 20 mL of a dichloromethane-methanol mixture (5:1,v:v) by shaking for one hour. A 10 mL aliquot (5g of soil) was removed, concentrated under nitrogen to about 2 mL, and adjusted to 5.0 mL in methanol. The final extracts were analyzed by GC-NPD as described in EPA Method 607.

B.Hydrazine

1. Water Samples. Sample aliquots (10 mL) were combined with 10 mL of 2.5% p-dimethylaminobenzaldehyde in a 25 mL volumetric flask. After 30 minutes the mixture was brought to 25 mL with glacial acetic acid. A 1:25 dilution in glacial acetic acid was then prepared and the absorbance at 480 nm read against a standard curve prepared using reference standards of hydrazine, treated in the same fashion. The method is based on NIOSH Method S237-1 (copy attached).

2. Soil/Sediment Samples. Sub-samples (10g) were extracted with 20 mL of 0.1 N hydrochloric acid by shaking for one hour. A 10 mL aliquot (5g of soil) was removed to a 25 mL volumetric flask and made slightly alkaline (pH 8-9) using 1 M aqueous sodium hydroxide. This solution was then treated with p-dimethylaminobenzaldehyde and processed as described above. The absorbance readings were again compared to a standard curve and the results calculated back to the original 10g soil sub-sample.

RESULTS

CAL I.D.	NDMA (ppb)	Hydrazine (ppm)
23308-1	<250 ug/Kg	<6 mg/Kg
-2	<250 ug/Kg	<6 mg/Kg
-3	<250 ug/Kg	<6 mg/Kg
-4	<250 ug/Kg	<6 mg/Kg
-5	<250 ug/Kg	<6 mg/Kg
-6	<250 ug/Kg	<6 mg/Kg
-7	<250 ug/Kg	<6 mg/Kg
-8	<250 ug/Kg	<6 mg/Kg
-9	<250 ug/Kg	<6 mg/Kg
-10	<250 ug/Kg	<6 mg/Kg
-11	<250 ug/Kg	<6 mg/Kg
-12	<250 ug/Kg	<6 mg/Kg
-13	<250 ug/Kg	<6 mg/Kg
-14	<250 ug/Kg	<6 mg/Kg
-15	<250 ug/Kg	<6 mg/Kg
-16	<250 ug/Kg	<6 mg/Kg
-17	<250 ug/Kg	<6 mg/Kg
-18	<250 ug/Kg	<6 mg/Kg
-19	<250 ug/Kg	<6 mg/Kg

CAL I.D.	NDMA (ppb)	Hydrazine (ppm)
23343-1	<0.25 ug/L	<1 mg/L
-2	<250 ug/Kg	<6 mg/Kg
-3	<0.25 ug/L	<1 mg/L
-4	<250 ug/Kg	<6 mg/Kg
-5	<0.25 ug/L	<1 mg/L
-6	<250 ug/Kg	<6 mg/Kg
-7	<0.25 ug/L	<1 mg/L
-8	<250 ug/Kg	<6 mg/Kg
-9	<0.25 ug/L	<1 mg/L
-10	<250 ug/Kg	<6 mg/Kg
-11	<0.25 ug/L	<1 mg/L
-12	0.34 ug/L	<1 mg/L
-13	<250 ug/Kg	<6 mg/Kg
-14	<250 ug/Kg	<6 mg/Kg
-15	<250 ug/Kg	<6 mg/Kg
-16	<250 ug/Kg	<6 mg/Kg
-17	<250 ug/Kg	<6 mg/Kg
-18	<250 ug/Kg	<6 mg/Kg
-19	<250 ug/Kg	(note a)
-20	<0.25 ug/L	<1 mg/L
-21	0.42 ug/L	<1 mg/L
-22	0.35 ug/L	<1 mg/L
23344-1	<250 ug/Kg	<6 mg/Kg
-2	<250 ug/Kg	<6 mg/Kg
-3	<250 ug/Kg	<6 mg/Kg
-4	<250 ug/Kg	<6 mg/Kg
-5	<250 ug/Kg	<6 mg/Kg
-6	<250 ug/Kg	<6 mg/Kg
-7	<250 ug/Kg	<6 mg/Kg
-8	<250 ug/Kg	<6 mg/Kg
-9	<250 ug/Kg	<6 mg/Kg
-10	<250 ug/Kg	<6 mg/Kg
-11	<250 ug/Kg	<6 mg/Kg
-12	<250 ug/Kg	<6 mg/Kg
23357-1	<250 ug/Kg	<6 mg/Kg
-2	<250 ug/Kg	<6 mg/Kg
-3	<250 ug/Kg	<6 mg/Kg
-4	<250 ug/Kg	<6 mg/Kg
-5	<250 ug/Kg	<6 mg/Kg
-6	<250 ug/Kg	<6 mg/Kg
-7	<250 ug/Kg	<6 mg/Kg
-8	<250 ug/Kg	<6 mg/Kg
-9	<250 ug/Kg	<6 mg/Kg
-10	<250 ug/Kg	<6 mg/Kg
-11	<250 ug/Kg	<6 mg/Kg
-12	<250 ug/Kg	<6 mg/Kg
-13	<250 ug/Kg	<6 mg/Kg
-14	<250 ug/Kg	<6 mg/Kg

CAL I.D.	NDMA (ppb)		Hydrazine (ppm)
23410-1	<250	ug/Kg	<6 mg/Kg
-2	<250	ug/Kg	<6 mg/Kg
-3	<250	ug/Kg	<6 mg/Kg
-4	<250	ug/Kg	<6 mg/Kg
-5	<250	ug/Kg	<6 mg/Kg
-6	<250	ug/Kg	<6 mg/Kg
-7	<250	ug/Kg	<6 mg/Kg
-8	<250	ug/Kg	<6 mg/Kg
-9	<250	ug/Kg	<6 mg/Kg
-10	<250	ug/Kg	<6 mg/Kg
-11	<250	ug/Kg	<6 mg/Kg
-12	<250	ug/Kg	<6 mg/Kg
-13	<250	ug/Kg	<6 mg/Kg
23470-1 SW	<5	ug/L (note b)	<1 mg/L
-2 SD	<250	ug/Kg	<6 mg/Kg
23517-1	0.61	ug/L	<1 mg/L
-2	0.23	ug/L	<1 mg/L
23532-1	5.2	ug/L	<1 mg/L
-2	0.28	ug/L	<1 mg/L
-3	<0.25	ug/L	<1 mg/L
23541-1	<0.25	ug/L	<1 mg/L
-2	<0.25	ug/L	<1 mg/L
-3	<0.25	ug/L	<1 mg/L

Notes: a Sample was broken at CAL Lab.

b Extract final volume mistakenly taken to 5.0 mL, precluding the usual 0.25 ug/L detection limit.

Charles J. Soderquist, PhD
Vice President

Don Fredrickson
Staff Chemist

Ben N. Buechler
GC Lab Manager

ds

TABLE I

QUALITY ASSURANCE RESULTS
HYDRAZINE

A. Soil Samples.

CAL I.D.	sample result (mg/Kg)	duplicate result (mg/Kg)	spike added (mg/Kg)	spike found (mg/Kg)	percent recovery
23308-8	<6	<6	50	0.85	1.7
-17	<6	<6	500	176	35
23343-16	<6	<6	50	6.2	12
23344-7	<6	<6	500	193	39
23357-4a	<6	<6	50	3.0	6.0
-4b	<6	<6	50	8.2	16
-4c	<6	<6	500	364	73
23357-11	<6	<6	500	118	24

Average recovery at 50 ppm spike level = 8.9%

Average recovery at 500 ppm spike level = 43%

B. Water Samples. Spikes of water are redundant since the colorimetric method standard curve is actually a series of water spikes.

TABLE II

QUALITY ASSURANCE RESULTS
NDMA

A. Water Samples.

CAl I.D.	sample result (ug/L)	spike added (ug/L)	spike found (ug/L)	duplicate spike found (ug/L)	average percent recovery
23343 (tap water)	--	10	4.7	9.8	73%
23470-1	<5	10	13	--	130%
23517 (tap water)	--	10	3.3	2.6	30%

B. Soil Samples.

CAL I.D.	sample result (ug/Kg)	spike added (ug/Kg)	spike found (ug/Kg)	duplicate spike found (ug/Kg)	average percent recovery
23308-1	<250	10,000	5600	4600	51%
23344-1	<250	10,000	3500	3400	35%
23357-4	<250	10,000	2600	2400	25%
23343-2	<250	10,000	5100	6500	58%
23410-1	<250	10,000	4200	4500	44%

Results for Site 1
8010, 8020, Metals and Inorganic Parameters

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Johnny R Coleman

Lab Sample No. 12-55-1116
Field Sample No. 1-ES-3, SS-1
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/23/85
QC Report No. [illegible]

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1116

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Johnny R Adamson

Lab Sample No. 12-85-1117
Field Sample No. 1-ES-3, SS-2
Date Collected 12-16 85
Date Received 12/17/85
Date Analyzed 12/23/85

QC Report No. PJKS-01

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1117

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1115
Field Sample No. HES-3 SS-3
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/24/85
QC Report No. PJKS-01

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1118

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Cleaver

Lab Sample No. 12-85-1119
Field Sample No. 1-ES-3, SS-4
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/24/85
QC Report No. PJKS-01

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1119

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Cadenhead

Lab Sample No. 12-855-1125
Field Sample No. 1-FS-3, SS-5
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/24/85
QC Report No. PJKS-31

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-55-11.2C

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Cadenhead

Lab Sample No. 12-35-1121
Field Sample No. 1-ES-3, SS-6
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/20/85
QC Report No. PJKS-01

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-11.21

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	5	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1122
Field Sample No. 1-ES-3 SS-7
Date Collected 12-16-85
Date Received 12/17/~~26~~ 85
Date Analyzed 12/20/85
QC Report No. PJKS-01

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1122

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.

Lab Sample No. 12-85-1123
Field Sample No. 1-ES-4 SS-1
Date Collected 12-16 85
Date Received 12/17/85
Date Analyzed 12/26/85

Laboratory Supervisor Approval: Johnny R. Cadman

QC Report No. PJKS-01

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1123

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1124
Field Sample No. 1-ES-4, SS-2
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/20/85
QC Report No. 2540-01

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1124

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: John R Adcock

Lab Sample No. 12-85-1125
Field Sample No. 1-ES-4, SS-3
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. PJKS-2

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1125

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Edmonson

Lab Sample No. 12-55-1126
Field Sample No. 1-ES-4 SS-4
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1126

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1127
Field Sample No. 1-ES-4 SS-5
Date Collected 12-16 85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1128
Field Sample No. 1-ES-4, SS-6
Date Collected 12-16 85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1128

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1129
Field Sample No. 1-ES-5, SS-1
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1129

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:
Johnny R Adamson

Lab Sample No. 12-85-1150
Field Sample No. 1-ES-5, SS-2
Date Collected 12-6-85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. PJKS-02

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1130

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1131
Field Sample No. 1-ES-5, SS-3
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1131

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 12-55-1132
Field Sample No. 1-ES-5, SS-4
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. PJK-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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12-85-1132

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1133
Field Sample No. 1-ES-5, SS-5
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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12-55-1133

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 12-85-1134
Field Sample No. 1-ES-5, SS-6
Date Collected 12-16-85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1144
Field Sample No. 1-ES-6, SS-1
Date Collected 12-17-85
Date Received 12/18/85
Date Analyzed 12/25/85
QC Report No. PJKS-02

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Discrepancy in clock noted.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1144

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1145
Field Sample No. 1-ES-6 55-2
Date Collected 12-17-85
Date Received 12-15-85
Date Analyzed 12/28/85
QC Report No. PJKS-C3

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Discrepancy in clock noted

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1145

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1146
Field Sample No. 1-ES-6, SS-3
Date Collected 12-17-85
Date Received 12-18-85
Date Analyzed 12/28/85
QC Report No. PJKS-03

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Discrepancy in clock noted.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1146

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adams

Lab Sample No. 12-85-1147
Field Sample No. 1-ES-6, SS-4
Date Collected 12-17-85
Date Received 12-19-85
Date Analyzed 1/3/86
QC Report No. PJKS-C3

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1147

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 12-85-1148
Field Sample No. 1-ES-6.55-5
Date Collected 12-17-85
Date Received 12-18-85
Date Analyzed 1/3/86

QC Report No. PJKS-03

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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12-85-1145

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1147
Field Sample No. 1-ES-6, SS-6
Date Collected 12-17-85
Date Received 12-18-85
Date Analyzed 1/3/86
QC Report No. PJKS-03

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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12-55-1149

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1156
Field Sample No. 1-ES-7, SS-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-03

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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12-85-1156

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1157
Field Sample No. 1-ES-7 SS 2
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-C3

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-55-1157

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adcock

Lab Sample No. 12-85-1138
Field Sample No. 1-ES-7, SS-3
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-03

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1158

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-55-1159
Field Sample No. 1-ES-7 SS-4
Date Collected 12-19-85
Date Received 12-14-85
Date Analyzed 1/1/86
QC Report No. PJKS-CS

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1159

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1160
Field Sample No. 1-ES 7, SS 5
Date Collected 12.18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-C3

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-55-11 GC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1161
Field Sample No. 1-ES-7, SS-6
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/.186
QC Report No. PJKS-04

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1161

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1116
Field Sample No. 1-ES-3 SS-1 : 0-1.5'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/23/85
QC Report No. 56528-1

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1117
Field Sample No. 1-ES-3 SS-2 4.0-5.0
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/23/85
QC Report No. 56528-1

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1118
Field Sample No. 1-ES-3 SS-3: 6.5-8.0'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/24/85
QC Report No. 56528-1

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1119
Field Sample No. 1-ES-3 SS-4: 9.5-10.2
Date Collected 12/10/85
Date Received 12/17/85
Date Analyzed 12/24/85
QC Report No. 56528-1

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1120
Field Sample No. 1-ES-3 SS-5; 12.5-14'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/24/85
QC Report No. 56528-1

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 12-85-1121
Field Sample No. 1-ES-3 SS-6 : 16.5-18.0
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. 56528-1

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Johnny R. Adaman

Lab Sample No. 12-85-1122
Field Sample No. 1-ES-3 SS-7 19.5-20.5'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85

QC Report No. 56528-1

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1123
Field Sample No. 1-ES-1, SS-1: 1.0-2.0'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. 56528-1

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1124
Field Sample No. 1-ES-4, SS-2: 5.0-7.0'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. 56528-1

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1125
Field Sample No. 1-ES-4, SS-3; 8.5-10.0
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. 56525-1

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1126
Field Sample No. 1-ES-4 SS-4; 11.5-12.0
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. 56528-2

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1127
Field Sample No. 1-ES-4 55-5 514.5-16
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. 56528-2

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1128
Field Sample No. 1-ES-4, SS-6; 19.0-20.5'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/26/85
QC Report No. 56528-2

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528

Client U.S. Air Force

Project PJKS (Denver)

Client No.

Laboratory Supervisor Approval:

Johnny R. Adamson

Lab Sample No. 12-85-1129

Field Sample No. 1-ES-5 <5, 10-2'

Date Collected 12/4/85

Date Received 12/7/85

Date Analyzed 12/27/85

QC Report No. 56528-1

Sample Matrix

/ / Water (ug/L)

/X / Soil (ug/g)

/ / Other

Dilution Factor

*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	3	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1130
Field Sample No. 1-ES-5 SS-2; 2-4'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. 56528-2

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1131
Field Sample No. 1-ES-5, 3S3: 4-6'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. 56528-2

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1132
Field Sample No. 1-ES-5, SS+; 9-11'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. 56528-2

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
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Client No. _____
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 12-85-1133
Field Sample No. 1-ES-5, SS5; 14-16'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. 56528-2

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1134
Field Sample No. 1-ES-5, SS6; 19-22.5'
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85
QC Report No. 56528-2

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
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Client No. _____
Laboratory Supervisor Approval:
Johnny R Adamson

Lab Sample No. 12-85-1144
Field Sample No. 1-ES-6, SS-1:0-2'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 12/28/85
QC Report No. 56528-2

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Discrepancy in Clock noted.

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ES Job No. 56528
Client U.S. Air Force
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Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1145
Field Sample No. 1-ES-6, SS-2, 2-4'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 12/28/85
QC Report No. 56528-3

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Discrepancy in clock noted.

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ES Job No. 56528
Client U.S. Air Force
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Client No. _____
Laboratory Supervisor Approval:

Johnny R Adamson

Lab Sample No. 12-85-1146
Field Sample No. 1-ES-6, SS-3, 5-7'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 12/28/85

QC Report No. 56528-3

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	3	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

Discrepancy in clock noted.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1147
Field Sample No. 1-ES-6, SS-4, 9-11
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 1/3/86
QC Report No. 56528-3

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
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Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1148
Field Sample No. 1-ES-6, SS-5, 14-16'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 1/3/86
QC Report No. 56528-3

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
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Client No. _____
Laboratory Supervisor Approval:

Johnny R Adamson

Lab Sample No. 12-85-1149
Field Sample No. 1-ES-6, SS-6, 19-21'
Date Collected 12/17/85
Date Received 12/18/85
Date Analyzed 1/3/86

QC Report No. 56528-3

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1156
Field Sample No. 1-ES-7, SS-1, 0-2'
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-3

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
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Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:

Johnny R. Adamson

Lab Sample No. 12-85-1157
Field Sample No. 1-ES-7, SS-2, 2-4'
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-3

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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Report _____

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:

Johnny R. Adamson

Lab Sample No. 12-85-1158
Field Sample No. 1-ES-7, SS-3, 5-7'
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86

QC Report No. 5C528-3

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1159
Field Sample No. 1-ES-7, SS-4, 9-11'
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-3

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1160
Field Sample No. 1-ES-7, SS-5, 14-16'
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 5C528-3

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1161
Field Sample No. 1-ES-7, SS-6, 19-21
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client USAF
Project PJKS
Client No.
Date Collected 12/16/85
Date Received 12/17/85

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
PJKS, 1-ES, SS-1:0-1.5'	1285-1116	0.13	5.0	0.6	919	<0.17				
PJKS, 1-ES-3, SS-2:4.5'	-1117	1.9	<1.0	0.7	180	<0.17				
PJKS, 1-ES-3, SS-3:6.5-8'	1118	0.099	1.0	<0.5	110	<0.17				
PJKS, 1-ES-3, SS-4:9-10.2'	1119	0.15	<1.0	<0.5	150	<0.17*				
PJKS, 1-ES-3, SS-5:12.5-14'	1120	0.12	5.0	<0.5*	40	<0.17				
PJKS, 1-ES-3, SS-6:16.5-18'	1121	0.349	2.0	<0.5*	50	<0.17				
PJKS, 1-ES-3, SS-7:19.5-21'	1122	0.088	<1.0	<0.5*	54*	<0.17				
PJKS, 1-ES-4, SS-1:1-2'	1123	0.415	5.5	<0.5*	190*	0.17				
PJKS, 1-ES-4, SS-2:5-7'	1124	0.094	7.0	<0.5*	604*	0.19*				
PJKS, 1-ES-4, SS-3:8.5-10'	1125	0.15	6	<0.5*	170*	<0.17*				
Date Analyzed	M / D	12 / 20	12 / 20	1 / 3+8*	12 / 19,23,24*	12 / 23+26*	/	/	/	
Analytical Method		EPA 354.1	352.1 EPA	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

* Indicated which date sample was analyzed when more than

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS
Client No.
Date Collected 12/16/85
Date Received 12/17/85

Sample Matrix:
[ ] Water (ug/L)
[x] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
PJKS,1-85-4,SS-4;11.5-12'	12-85-1126	0.13	8	<0.5	110	<0.17				
1-85-4,SS-5;10.5-16	1127	0.17	<1	<0.5	67	<0.17				
1-85-4,SS-6;19-20.5	1128	0.17	2	0.7	58	<0.17				
1-85-5,SS-1;0-2'	1129	0.400		0.5	633	<0.17				
1-85-5,SS-2;2-4'	1130	0.14	<1	0.5	588	0.21				
1-85-5,SS-3;4-6'	1131	0.23	<1	<0.5	412	<0.17				
1-85-5,SS-4;9-11'	1132	0.25	3.5	<0.5	72	<0.17				
1-85-5,SS-5;14-16'	1133	0.10	<1	1.0	50	<0.17				
1-85-5,SS-6;19-22.5'	1134	0.096	<1	<0.5	28	<0.17				
Date Analyzed	M / D	12/20	12/20+23*	1/9	12/26	12/23				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3 M46	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

* analyses performed on both dates

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report ____

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No. ____
Date Collected 12/17/85
Date Received 12/18/85

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other ____

QC Report No. ____
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor ____
*Moisture ____ %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolic	TKN	Cr^{VI}				Notes
PJKS.1-SS-6,SS-1,0-2'	12-85-1144	0.16	<1	<0.5	810	<0.17				
,SS-2,2-4'	1145	0.04*	<1*	<0.5	300	<0.17				
,SS-3,5-7'	1146	0.24	<1	0.7	520	<0.17				
,SS-4,9-11'	1147	0.008*	<1*	<0.5	30	<0.17				
,SS-5,14-16'	1148	0.098*	1*	<0.5	150*	<0.17				
,SS-6,19-21'	1149	0.069*	<1*	<0.5	160*	<0.17				
Date Analyzed	M / D	12/20+27*	12/20+27*	1/9	12+1/26+21*	12/23				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

* Indicates date analysis performed outside holding time

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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Report

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 12/18/85
Date Received 12/19/85

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
PJKS 1-ES-1, SS-1, 0-2'	12-85, 1156	0.21	<1	<0.5	730	0.70				
,SS-2, 2-4'	1157	0.12	<1	<0.5	400	<0.17				
,SS-3, 5-7'	1158	<0.08	<1	<0.5	120	<0.17				
,SS-4, 9-11'	1159	<0.08	<1	<0.5	30	<0.17				
,SS-5, 14-16'	1160	<0.08	<1	<0.5	34	<0.17				
↓ ↓ ,SS-6, 19-21'	↓ 1161	<0.08	<1	<0.5	73	<0.17				
Date Analyzed	M/D	12/27	1/24	1/9	1/21	12/30				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS
Client No.
Date Collected 12/16/85
Date Received 12/17/85

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
PJKS, 1-ES-SS-10-15'	1255-1116	0.13	5.0	0.6	919	<0.17				
PJKS, 1-ES-3, SS-2.4-5'	-1117	1.9	<1.0	0.7	180	<0.17				
PJKS, 1-ES-3, SS-3.6-5.8'	1118	0.099	1.0	<0.5	110*	<0.17				
PJKS, 1-ES-3, SS-4.9-10.2'	1119	0.15	<1.0	<0.5	150*	<0.17*				
PJKS, 1-ES-3, SS-5 12.5-14'	1120	0.12	5.0	<0.5*	40*	<0.17				
PJKS, 1-ES-3, SS-6 16.5-18'	1121	0.349	2.0	<0.5*	50*					
PJKS, 1-ES-3, SS-7 21.5-23'	1122	0.058	<1.0	<0.5*	54*	<0.17				
PJKS, 1-ES-4, SS-1 1-2'	1123	0.415	5.5	<0.5*	190*	0.17				
PJKS, 1-ES-4 SS-2.5-7'	1124	0.094	7.0	<0.5*	604*	0.19*				
PJKS, 1-ES-4, SS-8 15-17'	✓ 1125	0.15	6	<0.5*	170*	<0.17*				
Date Analyzed	M / D	12 / 20	12 / 20	1 / 3+8	12 / 19 23+26	12 / 23 + 26				
Analytical Method		EPA 354.1	353.1 EPA	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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Report

ES Job No. 56528
Client USAF
Project PJKS
Client No.
Date Collected 12/11/85
Date Received 12/12/85

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
PJKS 1-SS-4 SS-4: 6.5-7.2	12-85-1126	0.13	8	<0.5	110	<0.17				
1-SS-4 SS-5: 10.5-11	1127	0.17	<1	<0.5	67	<0.17				
1-SS-4 SS-6: 19-20.5	1128	6.17	2	0.7	58	<0.17				
1-SS-5 SS-1: 0-2'	1129	0.400		0.5	633	<0.17				
1-SS-5 SS-2: 2-4'	1130	0.14	<1	0.5	588	0.21				
1-SS-5 SS-3: 4-6'	1131	0.23	<1	<0.5	412	<0.17				
1-SS-5 SS-4: 9-11'	1132	0.25	3.5	<0.5	72	<0.17				
1-SS-5 SS-5: 16-16'	1133	0.10	<1	1.0	50	<0.17				
1-SS-5 SS-6: 19-20.5	1134	0.096	<1	<0.5	28	<0.17				
Date Analyzed	M / D	12/20	12/20+23	1/9	12/26	12/23				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 5528
Client USAF
Project PJKS Plant
Client No.
Date Collected 12/17/85
Date Received 12/18/85

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
PJKS/SS-6 SS-1.0-2'	12-SS-1144	0.16 x	<1 x	<0.5	840	<0.17				
SS-2 2-4'	1145	0.04 x	<1 x	<0.5	300	<0.17				
SS-3 5-7'	1146	0.24	<1	0.7	520	<0.17				
SS-4 9-11'	1147	0.108 x	<1 x	<0.5	30	<0.17				
SS-5 14-16'	1148	0.078 x	1 x	<0.5	50 x	<0.17				
SS-6 19-21'	1149	0.069 x	<1 x	<0.5	60 x	<0.17				
Date Analyzed	M / D	12 / 20+27	12 / 20+27	1 / 9	12 / 26+21	12 / 33				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 5528
Client USAF
Project RJKS Plant
Client No.
Date Collected 12/18/85
Date Received 12/19/85

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
RJKS 1-SS-1, SS-1.0-2'	12-85-1156	0.21	<1	<0.5	730	0.70				
SS-2, 2-4'	1157	0.12	<1	<0.5	400	<0.17				
SS-3 5-7	1158	<0.08	<1	<0.5	120	<0.12				
SS-4 9-11'	1159	<0.08	<1	<0.5	30	<0.17				
SS-5 12-14	1160	<0.08	<1	<0.5	34	<0.17				
✓ SS-6 19-21'	✓ 1161	<0.08	<1	<0.5	73	<0.17				
Date Analyzed	M / D	12/22	1/24	1/9	1/21	12/30				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

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Results for Site 2
8010, 8020, Metals and Inorganic Parameters

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1192
Field Sample No. 2-ES-9, SS-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-C5

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	.4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1192

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1193
Field Sample No. 2-ES-9, SS-2
Date Collected 12-9-95
Date Received 12-20-95
Date Analyzed 1/2/96
QC Report No. PJKS-05

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1193

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<3C		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1194
Field Sample No. 2-ES-9, SS-3
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-05

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-35-1194

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-55-1195
Field Sample No. 2-ES-9, SS-4
Date Collected 12-19-95
Date Received 12-20-95
Date Analyzed 1/2/96
QC Report No. PJKS 05

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1195

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.

Lab Sample No. 12-55-1196
Field Sample No. 2-ES-9, SS 5
Date Collected 12-17-85
Date Received 12-20-85
Date Analyzed 1/2/86

Laboratory Supervisor Approval: Johnny R. Adamson

QC Report No. PJKS 05

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-55-1196

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1001
Field Sample No. 2-ES-11, SS-1
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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1-86-1001

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1002
Field Sample No. 2-ES-11, SS-2
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1002.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1003
Field Sample No. 2-ES-11, SS-3
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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1-86-1003

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1004
Field Sample No. 2-ES-11, SS-4
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1004

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1005
Field Sample No. 2-ES-11, SS-5
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1005

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1006
Field Sample No. 2-ES-13, SS-1
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/6/86
QC Report No. PJKS-07

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1006

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1007
Field Sample No. 2-ES-13,SS-2
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86
QC Report No. PJKS-07

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1007

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 1-86-1008
Field Sample No. 2-ES-13, SS-3
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1008

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	230		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1009
Field Sample No. 2-ES-14, SS-1
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1009

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1010
Field Sample No. 2-ES-14, SS-2
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86
QC Report No. PJKS-07

*Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

1-86-1016

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Cidmore

Lab Sample No. 1-36-1011
Field Sample No. 2-ES-14, SS 3
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86
QC Report No. PJKS-03

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

1-86-1011

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1012
Field Sample No. 2-ES-14, SS 4
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86
QC Report No. PJKS-03

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

1-86-1012

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	43o		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:
Johnny R Cadenas

Lab Sample No. 1-86-1013
Field Sample No. 2-ES-14, SS-5
Date Collected 1-1-86
Date Received 1-2-86
Date Analyzed 1/7/86
QC Report No. PJKS-05

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

1-86-1013

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1192
Field Sample No. 2-ES-9,SS-1,0-2'
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56528
Client U.S. Air Force
Project FJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1193
Field Sample No. 2-ES-9, SS-2, 2-4'
Date Collected 12/19/85
Date Received 12/30/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project FJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1194
Field Sample No. 2-ES-9, SS-3, 5-7'
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1195
Field Sample No. 2-ES-9,55-4,9-11'
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1196
Field Sample No. 2-ES-9, SS-5, 14-16
Date Collected 12/14/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1001
Field Sample No. 2-ES-11,SS-1,0-2'
Date Collected
Date Received 1/2/86
Date Analyzed 1/6/86
QC Report No. 56528-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene		<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-56-1002
Field Sample No. 2-ES-11, SS-2, 2-4'
Date Collected
Date Received 1/2/86
Date Analyzed 1/6/86
QC Report No. 56528-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56528

Client U.S. Air Force

Project PJKS (Denver)

Client No.

Laboratory Supervisor Approval:

Johnny R Adamson

Lab Sample No. 1-86-1003

Field Sample No. 3-ES-11, SS-3, 5-7'

Date Collected

Date Received 1/2/86

Date Analyzed 1/6/86

QC Report No. 56528-7

Sample Matrix:

/ / Water (ug/L)

/X/ Soil (ug/g)

/ / Other

Dilution Factor

*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1004
Field Sample No. 2-ES-11, SS-4, 8-10'
Date Collected _____
Date Received 1/2/86
Date Analyzed 1/6/86
QC Report No. 56528-7

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-56-1005
Field Sample No. 2-ES-11, SS-5, 3-15'
Date Collected
Date Received 1/2/86
Date Analyzed 1/6/86
QC Report No. 56528-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1006
Field Sample No. 2-ES-13.SS-1,0-2'
Date Collected
Date Received 1/2/86
Date Analyzed 1/6/86
QC Report No. 56528-7

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1007
Field Sample No. 2-ES-13 SS-2, 2-4'
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86
QC Report No. 56528-7

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1008
Field Sample No. 2-ES-13, SS-3, 5-7'
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86
QC Report No. 56528-7

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1609
Field Sample No. 2-ES-14, SS-1, 0-2'
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86
QC Report No. 56528-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1010
Field Sample No. 2-ES-14 SS-2,2-4'
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86
QC Report No. 56528-7

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1011
Field Sample No. 9-ES-14-SS-3 5-7'
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86
QC Report No. 56528-8

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1012
Field Sample No. 9-ES-14, SS-4 9-11'
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-56-1013
Field Sample No. 2-ES-14, SS-5, 14-16'
Date Collected
Date Received 1/2/86
Date Analyzed 1/7/86
QC Report No. 56528-8

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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ES Job No. 56528
Client USAF
Project PJKS
Client No.
Date Collected 12-19-85
Date Received 12-20-85

Sample Matrix:
[ ] Water (ug/L)
[X] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	TKN	NO_3	NO_2	Phenolics					Notes
PJKS, 2-ES-9, SS-1, 0-2'ES	12-85-1192	290	<1	<0.08	<0.5					
,SS-2, 2-4'ES	1193	240	28	<0.08	<0.5					
,SS-3, 5-7'ES	1194	480	<1	<0.08	<0.5					
,SS-4, 9-11'ES	1195	140	<1	<0.08	<0.5					
,SS-5, 14-16'ES	1196	100	1.2	<0.08	<0.5					
Date Analyzed	M / D	1 / 21 +30	2 / 5	1 / 21	1 / 13					
Analytical Method		EPA 351.3	EPA 352.1	EPA 354.1	EPA 420.1					

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-1-86
Date Received 1-2-86

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN					Notes
PJKS 2-ES-1 SS-1 0-2'ES	01-86-1001	0.373	9	<0.5	200					
PJKS 2-ES-1 SS-2 2-4'ES	01-86-1002	0.343	<1	<0.5	210					
PJKS 2-ES-1 SS-3 5-7'ES	1003	1.01	5.7	<0.5	400					
PJKS 2-ES-1 SS-4 8-10'ES	1004	0.858	2.8	<0.5	320					
PJKS 2-ES-1 SS-5 13-15'ES	1005	0.27	4.7	<0.5	90					
Date Analyzed	M/D	2/6	2/12+13	1/15	1/30					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3					

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-1-86
Date Received 1-2-86

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN					Notes
PJKS, 2-ES-13 SS-10-2'ES	01-86-1006	0.19	7.0	<0.5	306					
PJKS, 2-ES-13 SS-2 2-4'ES	01-86-1007	0.082	2.5	<0.5	150					
PJKS, 2ES-13, SS 3,5-7'ES	01-86-1008	0.13	2.2	<0.5	40					
Date Analyzed	M / D	2 / 6	2 / 13	1 / 15	1 / 31					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3					

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-1-86
Date Received 1-2-86

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN					Notes
PJKS 2-ES-4 SS-1.0-2' ES	01-86-1009	0.45	<1	<0.5	596					
PJKS 2-ES-4 SS-2.2-4' ES	1010	1.61	1.6	<0.5	336					
PJKS 2-ES-4 SS-3.5-5' ES	1011	.096	3.1	<0.5	220					A
PJKS 2-ES-4 SS-4.9-6' ES	1012	.099	3.8	<0.5	71					
PJKS 2-ES-4 SS-6.0-7' ES	1013	.499	21	<0.5	110					
Date Analyzed	M/D	2/10	2/18	1/15+16	1/31					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3					

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: Best estimated value for nitrate.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-1-86
Date Received 1-2-86

Sample Matrix:
[ ] Water (ug/L)
[x] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN					Notes
PJKS 1-ES-14 SS-1,0-2' ES	01-86-1009	0.45	<1	<0.5	596					
PJKS 2-ES-14 SS-2,2-4' ES	1010	1.01	1.6	<0.5	336					
PJKS 2-ES-14 SS-3,5-7' ES	1011	.096	3.1	<0.5	220					A
PJKS 2-ES-14 SS-9,9-11' ES	1012	.099	3.8	<0.5	71					
PJKS 2-ES-14 SS-5,11-11' ES	1013	.499	21	<0.5	110					
Date Analyzed	M/D	2/6+10	2/18	1/15+16	1/31					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3					

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: Best estimated value for nitrate.

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ANALYTICAL RESULTS SUMMARY
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ES Job No. 56528
Client USAF
Project PJKS · Denver
Client No.
Date Collected 1-1-86
Date Received 1-2-86

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN					Notes
PJKS, 2-ES-13, SS-10-2'ES	01-86-1006	0.19	7.0	<0.5	306					
PJKS, 2-ES-13, SS-2, 2-4'ES	01-86-1007	0.082	2.5	<0.5	150					
PJKS, 2ES-13, SS 3, 5-7'ES	01-86-1008	0.13	2.2	<0.5	40					
Date Analyzed	M / D	2 / 6	2 / 13	1 / 15	1 / 31					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3					

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-1-86
Date Received 1-2-86

Sample Matrix:
/ / Water (ug/L)
/✓/ Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervison Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Diluted.

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN					Notes
PJKS, 2-ES-11, SS-1: 0-2'ES	01-86-1001	0.373	9	<0.5	200					
PJKS, 2-ES-11, SS-2: 2-4'ES	01-86-1002	0.343	<1	<0.5	210					
PJKS, 2-ES-11, SS-3: 5-7'ES	1003	1.01	5.7	<0.5	400					
PJKS, 2-ES-11 SS-4: 8-10'ES	1004	0.858	2.8	<0.5	320					
PJKS, 2-ES-11, SS-5: 13-15'ES	1005	0.27	4.7	<0.5	90					
Date Analyzed	M/D	2/6	2/12+13*	1/15	1/30					
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3					

* If % moisture is reported, results are presented on a dry-weight basis.

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Results of Site 3
8010, 8020, Metals and Inorganic Parameters

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 1-86-1030
Field Sample No. 3-ES-15, SS-1
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/8/86
QC Report No. PJKS-CS

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1038

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:
Johnny R Adamson

Lab Sample No. 1-86-1031
Field Sample No. 3-ES-15, SS-2
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/8/86
QC Report No. PJKS-C3

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1031

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Cleaver

Lab Sample No. 1-86-1052
Field Sample No. 3-ES-15, SS-3
Date Collected 1-9-86
Date Received 1-10-86
Date Analyzed 1/13/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-SC-1052

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1053
Field Sample No. 3-ES-15, SS-4
Date Collected 1-9-86
Date Received 1-10-86
Date Analyzed 1/13/86
QC Report No. PJKS-09

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Cadman

Lab Sample No. 1-86-1684
Field Sample No. 3-ES-15, SS-5
Date Collected 1-9-86
Date Received 1-10-86
Date Analyzed 1/13/86
QC Report No. PJKS-07

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1054

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1085
Field Sample No. 3-ES-15-5556
Date Collected 1-9-86
Date Received 1-10-86
Date Analyzed 1/13/86
QC Report No. PJKS-09

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1085

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	5	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:
Johnny P Coleman

Lab Sample No. 1-86-1032
Field Sample No. 3-ES16, SS-1
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/8/86
QC Report No. PJKS-08

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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1-SG-1032

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 1-86-1033
Field Sample No. 3-ES-16, SS-2
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/8/86

QC Report No. PJKS-08

Sample Matrix:

/ / Water (ug/L)
/X / Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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1-86-1053

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Johnny R Cochran

Lab Sample No. 1-86-1034
Field Sample No. 3-ES-16, SS 3
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/9/86
QC Report No. PJKS-09

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 1-56-1655
Field Sample No. 3-ES-16, SS-4
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/9/86

QC Report No. PJKS-03

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1036
Field Sample No. 3-ES-16, SS-5
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/9/86
QC Report No. PJKS-08

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

1-86-1036

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Cadenhead

Lab Sample No. 1-86-1037
Field Sample No. 3-ES-16, 55-6
Date Collected 1-2-86
Date Received 1-3-86
Date Analyzed 1/9/86
QC Report No. PJKS-CS

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

1-86-1037

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1030
Field Sample No. 3-ES-15, SS-1,0-2'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1031
Field Sample No. 3-ES-15,SS-2 2-4'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1082
Field Sample No. 3-ES-15, SS-3, 5-7'
Date Collected 1/9/86
Date Received 1/10/86
Date Analyzed 1/13/86
QC Report No. 56528-9

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:

Johnny R. Adamson

Lab Sample No. 1-86-1083
Field Sample No. 3-ES-15, 35-4, 8-10
Date-Collected 1/9/86
Date Received 1/10/86
Date Analyzed 1/13/86

QC Report No. 56528-9

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)*	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny P. Adamson

Lab Sample No. 1-86-1084
Field Sample No. 3-ES-15, SS-5, 11.5-13
Date Collected 1/9/86
Date Received 1/10/86
Date Analyzed 1/13/86
QC Report No. 56528-9

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1085
Field Sample No. 3-ES-15, SS-6, 13.4-15.4
Date Collected 1/9/86
Date Received 1/10/86
Date Analyzed 1/13/86
QC Report No. 56528-9

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1032
Field Sample No. 3-ES-16 SS-1, 0-2'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86
QC Report No. 56528-8

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Johnny R. Adamson

Lab Sample No. 1-86-1033
Field Sample No. 3-ES-16 SS-2, 2-4'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1034
Field Sample No. 2-ES-16 SS-3.5-7'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/9/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1035
Field Sample No. 3-ES-16, SS-4, 8-10
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/9/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1036
Field Sample No. 9-ES-16-SS-5, 11-12'
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/9/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adcock

Lab Sample No. 1-86-1637
Field Sample No. 3-ES-16, SS-6, 14-15
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/9/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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Report

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 1/2/86
Date Received 1/3/86

Sample Matrix:
- [ ] Water (ug/L)
- [x] Soil (ug/g) (ug/Kg)
- [ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor 1
*Moisture

Field Sample No.	Lab Sample No.	Cr^{VI}								Notes
PJKS,3-ES-15,SS1,0-2'	01-86-1030	<0.17								
SS-2,2-4'	1031	<0.17								
PJKS,3-ES-16,SS1,0-2'	1032	<0.17	1/7							
SS-2,2-4'	1033	0.43								
SS-3,5-7'	1034	<0.17								
SS-4,8-10'	1035	<0.17								
SS-5,11-12'	1036	<0.17								
SS-6,14-15'	1037	<0.17								
PJKS,3-ES-15,SS-3,5-7'	01-86-1082	<0.17	1-20							
SS-4,8-10'	1083	<0.17								
SS-5,11.5-13'	1084	<0.17								
SS-6,13-15'	1085	<0.17								
Date Analyzed	M/D	I/7+20								
Analytical Method		EPA 7196								

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 1/21/86
Date Received 1/31/86

Sample Matrix:
- [ ] Water (ug/L)
- [x] Soil (ug/g) (ug/Kg)
- [ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny T. Adamson
Dilution Factor 1
*Moisture %

Field Sample No.	Lab Sample No.	Cr^{VI}								Notes
PJKS,3-ES-15,SS-1,0-2'	01-86-1030	<0.17								
SS-2,2-4'	1031	<0.17								
PJKS,3-ES-16,SS-1,0-2'	1032	<0.17								
SS-2,2-4'	1033	0.43								
SS-3,5-7'	1034	<0.17								
SS-4,8-10'	1035	<0.17								
SS-5,11-12'	1036	<0.17								
SS-6,14-15'	1037	<0.17								
PJKS,3-ES-15,SS-3,5-7'	01-86-1082	<0.17								
SS-4,8-10'	1083	<0.17								
SS-5,11.5-13'	1084	<0.17								
SS-6,13-15'	1085	<0.17								
Date Analyzed	M / D	I / 24+20								
Analytical Method		EPA 7196								

* If % moisture is reported, results are presented on a dry-weight basis.

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Results for Site 7
8010, 8020, Metals and Inorganic Parameters

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1197
Field Sample No. 7-1, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-05

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	.1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-55-1197

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	.6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	.1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1195
Field Sample No. 7-2, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-05

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-55-1195

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Johnny R Adamson

Lab Sample No. 12-55-1199
Field Sample No. 7-3, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86

QC Report No. PJKS-05

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	.10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	.1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	.3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	.20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1199

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	.1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1200
Field Sample No. 7-4, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-05

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1200

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1201
Field Sample No. 7-5, SD-1
Date Collected 12-17-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-CC

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	.10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	.2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1201

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
1,3-Dichloropropylene	.6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1202
Field Sample No. 7-6, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-06

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	.24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1202

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Johnson

Lab Sample No. 12-85-1203
Field Sample No. 7-7, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-06

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1203

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	.1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1264
Field Sample No. 7-8, SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-CL

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1204

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-12055
Field Sample No. 7-9,SD-1
Date Collected 12-19-85
Date Received 12-20-85
Date Analyzed 1/2/86
QC Report No. PJKS-CC

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-55-1205

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	.1	<10		11.67		
1,2-Dichloroethane	.1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
1,3-Dichloropropylene	.5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	.1	<10		23.47		
1,1,1-Trichloroethane	.1	<10		14.76		
1,1,2-Trichloroethane	.1	<10		18.68		
Trichloroethylene	.2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	.2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:

Johnny R. Adamson

Lab Sample No. 12-85-1197
Field Sample No. 7-1, SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1198
Field Sample No. 7-2, SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Johnny R Adamson

Lab Sample No. 12-85-1199
Field Sample No. 7-3, SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1200
Field Sample No. 7-4, SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-5

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1201
Field Sample No. 7-552-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-6

Sample Matrix
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1202
Field Sample No. 7-6, SD-1, ES
Date Collected
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-6

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1203
Field Sample No. 7-7,SD-1,ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No.

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor 56528-6
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1204
Field Sample No. 7-8-SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-6

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1205
Field Sample No. 7-9, SD-1, ES
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 56528-6

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 12/19-85
Date Received 12/20-85

Sample Matrix:
[ ] Water (ug/L)
[ ] Soil (ug/g) (ug/Kg)
[x] Other Sediments (ug/g)

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr (VI)				Notes
PJKS, 7-1, SD-1, ES	12-85-1197	0.08	7	<0.5	140	0.40				
PJKS, 7-2, SD-1, ES	1198	0.08	2	<0.5	140	<0.17				
PJKS, 7-3, SD-1, ES	1199	0.08	<1	<0.5	430	<0.17				
PJKS, 7-4, SD-1, ES	1200	0.08	30	<0.5	570	0.86				A
PJKS, 7-5, SD-1, ES	1201	0.08	6.1	<0.5	650	<0.17				
PJKS, 7-6, SD-1, ES	1202	0.08	5.3	<0.5	140	<0.17				
Date Analyzed	M / D	1 / 23	2 / 11	1 / 14	1 / 30	12 / 30				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

NOTE A: The reported value of nitrate is best estimated value of four (4) analyses results. JRA

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 12-19-85
Date Received 12-20-85

Sample Matrix:
/ / Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/X/ Other Sediments (ug/g)

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr^{VI}				Notes
PJKS,7-7,SD-1,ES	12-85-1203	<0.08	5.6	<0.5	160	<0.17				
PJKS,7-8 SD-1,ES	12-85-1204	<0.08	5.3	<0.5	200	<0.17				
PJKS,7-9,SD-1,ES	12-85-1205	0.31	1.0	1.3	230	<0.17				A
Date Analyzed		M/D	1/23	2/12	1/14	1/30	12/30				
Analytical Method			EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: Reported value for Phenolics on sample 12-85-1205 is 1.3 ug/g.

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 12/19-85
Date Received 12/20-85

Sample Matrix:
- [ ] Water (ug/L)
- [ ] Soil (ug/g) (ug/Kg)
- [x] Other Sediments (ug/g)

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr VI				Notes
PJKS, 7-1, SD-1, ES	12-85-1197	0.08	7	<0.5	140	0.40				
PJKS, 7-2, SD-1, ES	1198	0.08	2	<0.5	140	<0.17				
PJKS, 7-3, SD-1, ES	1199	0.08	<1	<0.5	430	<0.17				
PJKS, 7-4, SD-1, ES	1200	0.08	30	<0.5	570	0.86				A
PJKS, 7-5, SD-1, ES	1201	0.28	6.1	<0.5	650	<0.17				
PJKS, 7-6, SD-1, ES	↓ 1202	0.08	5.3	<0.5	140	<0.17				
Date Analyzed	M / D	1 / 23	2 / 11	1 / 14	1 / 30	12 / 30				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

NOTE A: The reported value of nitrate is best estimated value of four (4) analyses results QRA

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

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Report

ES Job No. 56528
Client INSAF
Project PJKS Denver
Client No.
Date Collected 12-19-85
Date Received 12-20-85

Sample Matrix:
/ / Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/X/ Other Sediments (ug/g)

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	TKN	Cr VI				Notes
PJKS, 7-2, SD-1, ES	12-55-1203	<.08	5.6	<0.5	160	<0.17				
PJKS, 7-8 SD-1, ES	12-55-1204	<.08	5.3	<0.5	200	<0.17				
PJKS, 7-9, SD-1, ES	12-55-1205	0.31	1.0	1.3	230	<0.17				A
Date Analyzed		M / D	1 / 23	1 / 23	1 / 14	1 / 30	12 / 30				
Analytical Method			EPA 354.1	EPA 353.2	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: Reported value for Phenolics on sample 12-55-1205 is 1.3 ug/g.

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Results for Site 11 along Brush Creek
601, 602, 625, Metals and Inorganic Parameters

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

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Report

ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 3-86-1271
Field Sample No. 11-0, SW-1
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/27/86
QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

Report

ES Job No. 56528

Lab Sample No. 3-86-1270

Client U.S. Air Force

Field Sample No. 11-1, SW-3

Project PJKS (Denver)

Date Collected 3/26

Client No.

Date Received 3/27

Laboratory Supervisor Approval: Johnny R Adamson

Date Analyzed 3/27 & 3/28/86

QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)

/ / Soil (ug/g) (ug/Kg)

/ / Other

Dilution Factor

*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	33.6	<10	12.35	8.00	
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	2.04	3.38	17.91	10.41	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	55.2	<10	3.54	3.25	

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____

Lab Sample No. 3-86-1269
Field Sample No. 11-2, SW-3
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/27/86

Laboratory Supervisor Approval: Johnny R. Adamson

QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528

Client U.S. Air Force

Project PJKS (Denver)

Client No.

Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1268

Field Sample No. 11-3, SW-2

Date Collected 3/26

Date Received 3/27

Date Analyzed 3/31/86

QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)

/ / Soil (ug/g) (ug/Kg)

/ / Other

Dilution Factor

*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
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ES Job No. 56528

Lab Sample No. 3-86-1267

Client U.S. Air Force

Field Sample No. 11-4, SW-2

Project PJKS (Denver)

Date Collected 3/26

Client No.

Date Received 3/27

Laboratory Supervisor Approval: Johnny R. Adamson

Date Analyzed 3/27/86

QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)

/ / Soil (ug/g) (ug/Kg)

/ / Other

Dilution Factor

*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
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ES Job No. 56528

Client U.S. Air Force

Project PJKS (Denver)

Client No.

Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1265

Field Sample No. 11-5, SW-3

Date Collected 3/26

Date Received 3/27

Date Analyzed 3/31/86

QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)

/ / Soil (ug/g) (ug/Kg)

/ / Other

Dilution Factor

*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1266
Field Sample No. 11-5, SW-4
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31/86
QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
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ES Job No. 56528

Client U.S. Air Force

Project PJKS (Denver)

Client No.

Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 3-86-1264

Field Sample No. 11-6, SW-2

Date Collected 3/26

Date Received 3/27

Date Analyzed 3/31/86

QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)

/ / Soil (ug/g) (ug/Kg)

/ / Other

Dilution Factor

*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1263
Field Sample No. 11-7, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31 & 4/1/86
QC Report No. 56538-30

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	5.48	3.16	17.91	10.42	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3/86-1262
Field Sample No. 11-8, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31/86 & 4/1/86
QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	1.67	4.11	17.91	10.42	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

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Report ____

ES Job No. 56528

Lab Sample No. 3-86-1261

Client U.S. Air Force

Field Sample No. 11-9, SW-2

Project PJKS (Denver)

Date Collected 3/26

Client No. ____

Date Received 3/27

Laboratory Supervisor Approval: Johnny R. Adamson

Date Analyzed 3/31 & 4/1/86

QC Report No. 56528-30

Sample Matrix:

/X/ Water (ug/L)

/ / Soil (ug/g) (ug/Kg)

/ / Other ____

Dilution Factor ____

*Moisture ____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	1.27	3.39	17.91	10.42	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

Report ____

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. ____
Laboratory Supervisor Approval: Johnny P. Adamson

Lab Sample No. 3-86-1260
Field Sample No. 11-10, SW-2
Date Collected 3/26/86
Date Received 3/27/86
Date Analyzed 3/31 & 4/1/86
QC Report No. 56528-30

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil (ug/g) (ug/Kg)
/__/ Other ____

Dilution Factor ____
*Moisture ____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	2.20	6.55	17.91	10.12	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Report

ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1271
Field Sample No. 11-C, SW-1
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/27/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.94		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Report

ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 3-86-1269
Field Sample No. 11-2,SW-3
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/27/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

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ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1268
Field Sample No. 11-3, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 3-86-1367
Field Sample No. 11-4, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/27/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Report

ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 3-86-1266
Field Sample No. 11-5, SW-4
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

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ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1265
Field Sample No. 11-5, SW-3
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

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ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1264
Field Sample No. 11-6, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
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ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1263
Field Sample No. 11-7, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31 & 4/1/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
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ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1270
Field Sample No. 11-7, SW-3
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/27 & 3/28/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1262
Field Sample No. 11-8, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31 & 4/1/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 3-86-1261
Field Sample No. 11-9, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31 & 4/1/86
QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

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ES Job No. 56528
Client U.S. AIR FORCE
Project PJKS (DENVER)
Client No.

Lab Sample No. 3-86-1260
Field Sample No. 11-10, SW-2
Date Collected 3/26
Date Received 3/27
Date Analyzed 3/31 & 4/1/86

Laboratory Supervisor Approval: Johnny R. Adamson

QC Report No. 56528-31

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(first of two pages)

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1162
Field Sample No. 11-1, SD-2
Date Collected 12-13-85
Date Received 12-17-85
Date Analyzed 1/1/86
QC Report No. PJKS-04

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	.24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
(second of two pages)

12-85-1162

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	.1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Edmondson

Lab Sample No. 12-85-1163
Field Sample No. 11-2, SD-2
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-04

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	.3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	.2	<10		1.95		
Chloromethyl methyl ether	.20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1163

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1164
Field Sample No. 11-3, SD-1
Date Collected 12-19-85
Date Received 12-19-85
Date Analyzed 1.186
QC Report No. PJKS-C4

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	.2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1164

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	.5	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	.5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
1,3-Dichloropropylene	.5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	.1	<10		23.47		
1,1,1-Trichloroethane	.1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	.2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	.2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1165
Field Sample No. 11-4, SD-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-04

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1165

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	.6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1166
Field Sample No. 11-5, SD-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-04

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1166

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: John R Adamson

Lab Sample No. 12-85-1167
Field Sample No. 11-5, SD-2
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-04

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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12-85-1167

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	5	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	.1	<10		17.19		
1,3-Dichloropropylene	.5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	.2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1165
Field Sample No. 11-6, SD-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/.186
QC Report No. PJKS-04

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	.4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	1	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	.2	<10		26.58		
2-Chloroethyl vinyl ether	.3	<10		19.49		
Chloromethane	.2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	.4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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12-55-1168

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	5	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1169
Field Sample No. M-7, SD-1
Date Collected 12-19-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-04

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	.4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	.8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	.24	<24		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	.10	<10		11.6		
Chloral	.10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	.1	<10		13.01		
1-Chlorohexane	.2	<10		26.58		
2-Chloroethyl vinyl ether	.3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	.1	<10		11.67		
1,2-Dichloroethane	.1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	.1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	.4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval:

Johnny R Adamson

Lab Sample No. 1-86-1029
Field Sample No. 11-8, SD-2
Date Collected 1-7-86
Date Received 1-3-86
Date Analyzed 1/8/86

QC Report No. PJKS-08

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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1-86-1027

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1171
Field Sample No. 11-9, SD-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/.86
QC Report No. PJKS-C4

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	.10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1171

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	.30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	.3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Halogenated Volatile Organics
SW Method 8010
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-55-1172
Field Sample No. 11-10, SD-1
Date Collected 12-18-85
Date Received 12-19-85
Date Analyzed 1/1/86
QC Report No. PJKS-05

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	.25	<25		42.2		
Bromobenzene	.8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	.4	<10		21.24		
Bromomethane	.24	<24		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	.10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	.2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010
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12-85-1172

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	5	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
1,3-Dichloropropylene	6	<10		17.24 18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval:

Johnny R. Adamson

Lab Sample No. 12-85-1162
Field Sample No. 11-1, SD-2, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86

QC Report No. 56528-4

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1163
Field Sample No. 11-2, SD-2, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1164
Field Sample No. 18-3, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1165
Field Sample No. 11-4, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1166
Field Sample No. 11-5, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1167
Field Sample No. 11-5, SD-2, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1168
Field Sample No. 11-6, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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Aromatic Volatile Organics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1169
Field Sample No. 11-7, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 12-85-1170
Field Sample No. 11-8,SD-1,ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1029
Field Sample No. 11-8, SD-2, ES
Date Collected 1/2/86
Date Received 1/3/86
Date Analyzed 1/8/86
QC Report No. 56528-8

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 12-85-1171
Field Sample No. #-9, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-4

Sample Matrix:

/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 12-85-1172
Field Sample No. B-10, SD-1, ES
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/1/86
QC Report No. 56528-5

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

* If % moisture is reported, results are presented on a dry-weight basis.

862J137

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS
Client No.
Date Collected 12/18/85
Date Received 12/19/85

Sample Matrix:
[✓] Water (ug/L) mg/L
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	Phenolics	O+G	TDS	TKN	Cr^{VI}		Notes
PJKS, 11-3, SW-1, ES	12-85-1173	.012	<0.1	<0.005	<1	340	0.1	<0.02		
11-4, SW-1, ES	1174	.011	<0.1	<0.005	<1	260	0.1	<0.02		
11-5, SW-1, ES	1175	.011	<0.1	0.010	2.37	320	0.1	<0.02		
11-5, SW-2, ES	1176	.0082	<0.1	<0.008	<1	300	0.4	<0.02		
11-6, SW-1, ES	1177	.0095	<0.1	<0.008	<1	320	0.1	<0.02		
11-7, SW-1, ES	1178	.014	0.9	0.013	1.27	340	0.1	<0.02		
11-8, SW-1, ES	1179	.0088	0.9	<0.008	<1	340	0.2	<0.02		
11-9, SW-1, ES	1180	.014	0.9	<0.008	<1	340	0.2	<0.02		
11-10, SW-1, ES	1181	.0098	0.9	<0.008	<1	340	0.2	<0.02		
11-1, SW-2, ES	1186	.032		<0.008	<1		<0.1	<0.02		
11-2, SW-2, ES	1187	.018	<0.1	<0.008	2.07	320	<0.1	<0.02		
	Changes per J. Adamson									
			1/20	J. Ain Atlanta					1	
Date Analyzed	M/D	12/20	1/2, 2/20	1/13, 1/15	1/7	12/31/21	1/17	12/27		
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 413.1	EPA 160.3	EPA 351.3	EPA 7196		

* If % moisture is reported, results are presented on a dry-weight basis.

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS
Client No.
Date Collected 12/18/85
Date Received 12/19/85

Sample Matrix:
[ ] Water (ug/L)
[ ] Soil (ug/g) (ug/Kg)
[x] Other Sediment ug/g

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3^-	Phenolics	TKN	Cr^{VI}				Notes
PJKS,11-1,SD-2,ES	12-85-1162	0.065	<1	<0.5	280	<0.17				
11-2,SD-2,ES	1163	<0.08	<1	<0.5	390	1.1				
11-3,SD-1,ES	1164	0.053	<1	<0.5	74	<0.17				
11-4,SD-1,ES	1165	0.059	<1	<0.5	~~56~~ 71	<0.17				
11-5,SD-1,ES	1166	0.04	<1	<0.5	71	<0.17				
11-5,SD-2,ES	1167	0.056	<1	<0.5	110	<0.17				
11-6,SD-1,ES	1168	0.20	<1	0.5	120	<0.17				
11-7,SD-1,ES	1169	0.056	<1	<0.5	110	<0.17				
11-8,SD-1,ES	1170	0.065	<1	<0.5	200	0.23				
11-9,SD-1,ES	1171	<0.08	<1	<0.5	68	<0.17				
11-10,SD-1,ES	1172	0.053	~~3.9~~	<0.5	65	<0.17				
Date Analyzed	M / D	12/27	1/27	1/9+13	1/21	12/26+30				
Analytical Method		EPA 354.1	EPA 352.1	EPA 420.1	EPA 351.3	EPA 7196				

* If % moisture is reported, results are presented on a dry-weight basis.

059J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report ____

ES Job No. 56528
Client Lisa Korner
Project U.S.A.F. P.J.K.S.
Client No. ____
Date Collected ____
Date Received 12 April 86

Sample Matrix:
[X] Water (~~ug/L~~ mg/L
[ ] Soil (ug/g) (ug/Kg)
[ ] Other ____

QC Report No. ____
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor ____
*Moisture ____ %

Field Sample No.	Lab Sample No.	TKN								Notes
4/11/86 8:45; 11-10, SW-3	04-86-1078	<1.13								
8:50, 11-9, SW-3	04-86-1079	<1.13								
8:55, 11-8, SW-3	04-86-1080	<1.13								
9:10, 11-7, SW-3	04-86-1081	<1.13								
9:15, 11-6, SW-3	04-86-1082	<1.13								
9:20, 11-5, SW-5	04-86-1083	<1.13								
9:20 11-5, SW-6	04-86-1084	<1.13								
Date Analyzed	M / D	4 / 17								
Analytical Method		EPA 351.3								

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* If % moisture is reported, results are presented on a dry-weight basis.

USGJIII Detection Limit for TKN < 0.2 mg/l

[redacted] (6.3.86)

Pond Water Results
601, 602, 625, Metals and Inorganics

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-22
Field Sample No. PJKS, 1-SW-2, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-SW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	TR<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	TR<1.0	---	---	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-5
Field Sample No. PJKS, 1-SW-2, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-6
Field Sample No. PJKS, 1-SW-2, IT Dup.
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	TR<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-7
Field Sample No. PJKS, 1-SW-2, IT Spike
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	10.5	---	2.5	---	
Chlorobenzene	1.0	9.6	---	7.8	---	
1,2-Dichlorobenzene	1.0	10.3	---	14.3	---	
1,3-Dichlorobenzene	1.0	10.4	---	12.8	---	
1,4-Dichlorobenzene	1.0	10.2	---	12.7	---	
Ethyl benzene	1.0	9.6	---	7.3	---	
Toluene	1.0	8.9	---	4.8	---	
Xylenes (Dimethyl benzene)	1.0	---	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ES ENGINEERING-SCIENCE

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Priority Pollutant Analysis
Base Neutrals - EPA 625

Date Received 1-13-86
Date Reported 2-7-86

P.O. No. --
Job No. 8047.19

For: ES-Atlanta/PJKS, Denver, CO Attn: Johnny Adamson
Address:

Pond + Sed. water

Lab No:	860123	860124
Source of Sample:	01-86-1086	01-86-1087
	Water	Soil
Collected:	1-9-86	1-9-86
Collected:	1430	1500

mpound	ANALYTICAL RESULTS ug/L	ug/g
1,3-Dichlorobenzene	<2	<0.05
1,4-Dichlorobenzene	<2	<0.05
Hexachloroethane	<2	<0.05
Bis(2-chloroethyl)ether	<6	<0.2
1,2-Dichlorobenzene	<2	<0.05
Bis(2-chloroisopropyl)ether	<6	<0.2
N-Nitrosodi-n-propyl amine	<10	<0.2
Hexachlorobutadiene	<2	<0.05
1,2,4-Trichlorobenzene	<2	<0.05
Isophorone	<2	<0.05
Naphthalene	<2	<0.05
Bis(2-chloroethoxy)methane	<5	<0.1
2-Chloronaphthalene	<2	<0.05
Acenaphthylene	<4	<0.1
Acenaphthene	<2	<0.05
Dimethyl phthalate	<2	<0.05
2,6-Dinitrotoluene	<2	<0.05
Fluorene	<2	<0.05
2,4-Dinitrotoluene	<6	<0.2
Diethylphthalate	<2	<0.05
N-Nitrosodiphenylamine	<2	<0.05
Hexachlorobenzene	<2	<0.05

Priority Pollutant Analysis
Base Neutrals - EPA 625
(continued)

Date Received 1-13-86
Date Reported 2-7-86

P.O. No. --
Job No. 8047.19

For: ES-Atlanta/PJKS, Denver, CO Attn: Johnny Adamson
Address:

Lab No:	860123	860124
Source of Sample:	01-86-1086	01-86-1087
	Water	Soil
Date Collected:	1-9-86	1-9-86
Time Collected:	1430	1500

Compound	ANALYTICAL RESULTS ug/L	ug/g
Phenanthrene	<5	<0.1
Anthracene	<2	<0.05
Dibutyl phthalate	<2	<0.05
Fluoranthene	<2	<0.05
Pyrene	<2	<0.05
Butyl benzyl phthalate	<2	<0.05
Bis(2-ethylhexyl) phthalate	<2	<0.05
Chrysene	<2	<0.05
Benzo(a)anthracene	<8	<0.2
Di-n-octylphthalate	<2	<0.05
Benzo(b)fluoranthene	<5	<0.1
Benzo(k)fluoranthene	<2	<0.05
Benzo(a)pyrene	<2	<0.05
Indeno(1,2,3-c,d)pyrene	<4	<0.1
Dibenzo(a,h)anthracene	<2	<0.05
Benzo(ghi)perylene	<4	<0.1

Priority Pollutant Analysis
Pesticides and PCBs- EPA 625

Date Received 1-13-86
Date Reported 2-7-86

P.O. No. --
Job No. 8047.19

For: ES-Atlanta/PJKS, Denver, CO Attn: Johnny Adamson
Address:

Lab No:	860123	860124
Source of Sample:	01-86-1086	01-86-1087
	Water	Soil
Date Collected:	1-9-86	1-9-86
Time Collected:	1430	1500

Compound	ANALYTICAL RESULTS ug/L	ug/g
Alpha-BHC	<4	<0.1
Gamma-BHC	<4	<0.1
Beta-BHC	<4	<0.1
Heptachlor	<2	<0.05
Delta-BHC	<4	<0.1
Aldrin	<2	<0.05
Heptachlor epoxide	<2	<0.05
Endosulfan I	<10	<0.2
Dieldrin	<2	<0.05
4,4'-DDE	<6	<0.2
Endrin	<10	<0.2
Endosulfan II	<10	<0.2
4,4'-DDD	<3	<0.08
4,4'-DDT	<5	<0.1
Endosulfan Sulfate	<6	<0.2
Endrin aldehyde	<20	<0.5
Chlordane	<10	<0.2
Toxaphene	<50	<1
PCB-1016	<40	<1
PCB-1221	<40	<1
PCB-1232	<40	<1
PCB-1242	<40	<1
PCB-1248	<40	<1
PCB-1254	<40	<1
PCB-1260	<40	<1

Priority Pollutant Analysis
Acid Extractables - EPA 625

Date Received 1-13-86
Date Reported 2-7-86

P.O. No. --
Job No. 8047.19

For: ES-Atlanta/PJKS, Denver, CO Attn: Johnny Adamson
Address:

Lab No:	860123	860124
Source of Sample:	01-86-1086	01-86-1087
	Water	Soil
Date Collected:	1-9-86	1-9-86
Time Collected:	1430	1500

Compound	ANALYTICAL RESULTS ug/L	ug/g
2-Chlorophenol	<4	<0.1
2-Nitrophenol	<4	<0.1
Phenol	<2	<0.05
2,4-Dimethylphenol	<3	<0.08
2,4-Dichlorophenol	<3	<0.08
2,4,6-Trichlorophenol	<3	<0.08
4-Chloro-3-methylphenol	<3	<0.08
2,4-Dinitrophenol	<40	<1
2-Methyl-4,6-Dinitrophenol	<20	<0.5
Pentachlorophenol	<4	<0.1
4-Nitrophenol	<5	<0.1

James H. Morris
Laboratory Supervisor

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1
Report _____

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No. _____
Date Collected 9 Jan. 86
Date Received 10 Jan. 86

Sample Matrix:
/X/ Water (ug/L) (mg/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other _____

QC Report No. _____
Laboratory Supervisor Approval: Johnny R Adamson
Dilution Factor _____
*Moisture _____ %

Field Sample No.	Lab Sample No.		NO_2	NO_3	O+G	Phenolics	TKN	Cr^{VI}			Notes
PJKS,1-SW-1,ES	01-86-1086		0.032	4.8	3.05	<0.005	<0.1	<0.02			
Date Analyzed		M/D	1/10	1/10	1/22	1/16	1/16	1/10			
Analytical Method			EPA 354.1	EPA 352.1	EPA 413.1	EPA 420.1	EPA 351.3	EPA 7196			

* If % moisture is reported, results are presented on a dry-weight basis.

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client USAF
Project PJKS Plant (Denver)
Client No.
Date Collected 1-9-86
Date Received 1-10-86

Sample Matrix:
/ / Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/X/ Other Pond Sediments (ug/g)

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_3	NO_2	O&G	Phenolics	TKN	Cr^{VI}			Notes
PJKS 1-SD-1, ES	01-86-187	5.42	4.5	584	0.65	780	0.74			
Date Analyzed	M / D	2/10	2/15	1/22	1/20	1/31	1/20	/	/	
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 420.1	EPA 351.3	EPA 7196			

* If % moisture is reported, results are presented on a dry-weight basis.

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 9 Jan. 86
Date Received 10 Jan. 86

Sample Matrix:
[X] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	As	Cd	Cr	Cr	Hg	Pb	Se						
PJKS, I-SW-1,ES	D1-86-1086	<0.002	<0.02	<0.107		<0.0002	<0.12	<0.003						
Date Analyzed	M / D	2/19	2/18	2/18		2/21	2/18	2/20						
Analytical Method	**	EPA-202.3	EPA-213.1	EPA-218.4		EPA-245.1	EPA-239.1	EPA-270.3						

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. J6528
Client USAF
Project PJKS Plant
Client No.
Date Collected 9 Jan. 86
Date Received 10 Jan. 86

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Sample Matrix:
[ ] Water (ug/L)
[ ] Soil (ug/g) (ug/Kg)
[X] Other Pond T-8A Sediment (ug/g)

Field Sample No.	Lab Sample No.	As	Cd	Cr	Hg	Pb	Se							
PJKS, 1-SD-1, ES	01-86-1087	3.1	<0.40	28	<0.004	0.010	0.060							
Date Analyzed	M / D	2/19	2/18	2/18	2/21	2/18	2/20							
Analytical Method	**	EPA 206.3	EPA 213.1	EPA 218.1	EPA 245.1	EPA 239.1	EPA 270.3							

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* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1
Report

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 9 Jan. 86
Date Received 10 Jan. 86

Sample Matrix:
[X] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	O+G	Phenolics	TKN	Cr^{VI}			Notes
PJKS,1-SW-1,ES	01-86-1086	0.032	4.8	3.05	<0.005	<0.1	<0.02			
Date Analyzed	M/D	1/10	1/10	1/22	1/16	1/16	1/10			
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 420.1	EPA 351.3	EPA 7196			

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 9 Jan. 86
Date Received 10 Jan. 86

Sample Matrix:
[x] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	As	Cd	Cr	Cu	Hg	Pb	Se	Tl					
PJKS, 1-SW-1,ES	01-86-1086	<0.002	<0.02	<0.107		<0.0002	<0.12	<0.003						
1-SW-1	01-86-1086		<0.01				<0.13		<0.23	Reanalyzed 5/8/86*				
Date Analyzed	M/D	2/19	2/18	2/18		2/21	2/18	2/20						
Analytical Method	**	EPA-206.3	EPA-213.1	EPA-218.1		EPA-245.1	EPA-239.1	EPA-270.3						

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

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* Results transferred from page L-427

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ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client USAF
Project PJKS Plant (Denver)
Client No.
Date Collected 1-9-86
Date Received 1-10-86

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson

Sample Matrix:
/ / Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/V/ Other Pond Sediments (ug/g)

Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	O&G	Phenolics	TKN	Cr^{III}			Notes
PJKS, 1-SD-1, ES	01-86-1087	5.42	4.5	584	0.65	780	0.74			
Date Analyzed	M / D	2/10	2/18	1/22	1/20	1/31	1/20	/	/	
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 420.1	EPA 351.3	EPA 7196			

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

Report

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 9 Jan. 86
Date Received 10 Jan. 86

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Sample Matrix:
/ / Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/X/ Other Pond T-8A Sediment (ug/g)

Field Sample No.	Lab Sample No.	As	Cd	Cr	Hg	Pb	Se							
PJKS,1-SD-1,ES	01-86-1087	3.1	<0.40	28	<0.004	0.010	0.060							
Date Analyzed	M/D	2/19	2/18	2/18	2/21	2/18	2/20							
Analytical Method	**	EPA 206.3	EPA 213.1	EPA 218.1	EPA 245.1	EPA 239.1	EPA 270.3							

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

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Groundwater Results
Method 601, 602, 625, Methods and
Inorganic Parameters

ES Results for 601 and 602 Methods
Dated 1/29/86

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1126
Field Sample No. 1-MW-1, GW-1 ES
Date Collected 1/14/86
Date Received 1/15/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	30.4	<0.1	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	14.3	<0.2	18.68	13.19	1
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	224	3.9	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interferance observed on column 1, the quantitation obtained on column 2 is the correct value.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1180
Field Sample No. 1-MW-2, EW-2, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/30/86
QC Report No. 56528-11

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		- 1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	38.7	<0.10	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	86.0	1.24	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interferance observed on column 1, the quantitation obtained on column 2 is the correct value.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1127
Field Sample No. 1-MW-2, GW-1, ES
Date Collected 1/14/86
Date Received 1/15/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	56.2	<0.1	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	132	1.3	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1130
Field Sample No. 2-MW-3, GW-1, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		- 1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	237	0.14	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	735	0.83	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1178
Field Sample No. 4-MW-4, GW-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	77.3	<0.10	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	95.4	0.34	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1179
Field Sample No. 4-MW-5, GW-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		-1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

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Report ____

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. ____

Lab Sample No. 1-86-1133
Field Sample No. 4-MW-6, GW-2, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86

Laboratory Supervisor Approval: Johnny R. Adamson

QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other ____

Dilution Factor ____
*Moisture ____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	325	<0.10	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1132
Field Sample No. 4-MW-6, GW-1, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	307	<0.1	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	61.3	<0.12	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

Report ____

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. ____
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1177
Field Sample No. 2-MW-7, GW-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other ____

Dilution Factor ____
*Moisture ____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		-1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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Purgeable Halocarbons
EPA Method 601

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. ____
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1131
Field Sample No. 10-MW-8, GW-1, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86
QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other ____

Dilution Factor ____
*Moisture ____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		-1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	38.2	<0.10	12.35	11.93	1
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	433	<0.12	17.91	9.61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1182
Field Sample No. Trip Blank
Date Collected
Date Received 1/17/86
Date Analyzed 1/30/86
QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1181
Field Sample No. field blank
Date Collected
Date Received 1/17/86
Date Analyzed 1/30/86
QC Report No. 56528-11

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		-1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-56-1126
Field Sample No. 1-MW-1, GW-1, ES
Date Collected 1/14/86
Date Received 1/15/86
Date Analyzed 1/29/86
QC Report No. 56528-10

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		- 7.18		
Toluene	0.2	<10		5.47		
methyl ethyl ketone	1.1	105	133	1.22	13.3	

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Report _____

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____
Laboratory Supervisor Approval:
Johnny R. Adamson

Lab Sample No. 1-86-1127
Field Sample No. 1-MW-2, GW-1, ES
Date Collected 1/14/86
Date Received 1/15/86
Date Analyzed 1/29/86
QC Report No. 56528-10

Sample Matrix

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		- 7.18		
Toluene	0.2	<10		5.47		
methyl ethyl ketone	1.1	<10		1.22		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R Adamson

Lab Sample No. 1-86-1130
Field Sample No. 2-MW-3, GW-1, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86
QC Report No. 56528-10

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		
methyl ethyl ketone	1.1	<10		1.22		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1178
Field Sample No. 4-MW-4, GW-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86
QC Report No. 56528-10

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		-7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1179
Field Sample No. 4-MW-5, GW-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86
QC Report No. 56528-10

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1133
Field Sample No. 4-MW-6, GW-2, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86

QC Report No. 56528-10

Sample Matrix

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		- 7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
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Report _____

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No. _____

Lab Sample No. 1-86-1132
Field Sample No. 4-MW-6, GW-1, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86

Laboratory Supervisor Approval: Johnny R Adamson

QC Report No. 56528-10

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other _____

Dilution Factor _____
*Moisture _____ %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1177
Field Sample No. 2-MW-7, GW-1, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/29/86
QC Report No. 56528-10

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		
methyl ethyl ketone	1.1	<10		1.22		

* If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
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ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1131
Field Sample No. 10-MW-8, GW-1, ES
Date Collected 1/15/86
Date Received 1/16/86
Date Analyzed 1/29/86
QC Report No. 56528-10

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

862J137

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Page 1 of 1
Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1180
Field Sample No. 1-MW-2, GW-2, ES
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/30/86
QC Report No. 56528-10

Sample Matrix

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

862J137

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1181
Field Sample No. field blank
Date Collected 1/16/86
Date Received 1/17/86
Date Analyzed 1/30/86
QC Report No. 56528-10

Sample Matrix:

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

862J137

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

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Report

ES Job No. 56528
Client U.S. Air Force
Project PJKS (Denver)
Client No.
Laboratory Supervisor Approval: Johnny R. Adamson

Lab Sample No. 1-86-1182
Field Sample No. Trip Blank
Date Collected 1-16-86
Date Received 1/17/86
Date Analyzed 1/30/86
QC Report No. 56528-10

Sample Matrix

/X/ Water (ug/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10		16.46		
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10		5.47		

* If % moisture is reported, results are presented on a dry-weight basis.

862J137

IT Results for 601 and 602 Methods
Dated 4/15/86

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

17605 Fabrica Way • Cerritos, California 90701 • 213-921-9831 / 714-523-9200

2nd Resample

CERTIFICATE OF ANALYSIS

MAY 27 1985
Engineering Science
Denver

Prepared For: Engineering Science
1100 Stout St., Suite 1100
Denver, CO 80204

Attn: Lisa Korner

Date: May 21, 1986

Date Received	P.O. Number	Job Number
April 12, 1986	56528	36528/rjc

Six (6) soil samples:

Sample Number	Date	Time
PJKS, 1-SW-2, IT	4-11-86	9:30
PJKS, 1-MW-1, GW-2, IT	4-11-86	10:30
PJKS, 10-MW-8, GW-2, IT	4-11-86	12:00
PJKS, 5-MW-6, GW-3, IT	4-11-86	2:15
PJKS, 5-MW-6, GW-4, IT	4-11-86	2:15
PJKS, 4-MW-4, GW-2, IT	4-11-86	3:15

The samples were analyzed for Purgeable Halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method ~~8010~~ 601. 624

Second column confirmations not done due to insufficient sample.

The samples were also analyzed for Aromatic Volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method ~~8020~~ 602 624. The results are listed on the following summary sheets.

In addition, sample 1-SW-2 was analyzed for Methyl Ethyl Ketone using a Hewlett Packard 5890 gas chromatograph equipped with a photoionization detector. The result is as follows:

	Methyl Ethyl Ketone (ug/l)
1-SW-2	TR<1

I certify that this report truly represents the findings of work performed by me or under my direct supervision.

Robert I. Sundberg
Groupleader

Reviewed and Approved:

Richard L. Merrell FOR
Laboratory Director

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client
Project PJKS Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-10
Field Sample No. PJKS, 1-MW-1, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

Continued

Engineering Science
Page 3

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-1, GW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	ND<1	---	---	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	29	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	36	---	13.8	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	89	---	16.1	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

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CERTIFICATE OF ANALYSIS

Prepared For: Engineering Science
1100 Stout St., Suite 1100
Denver, CO 80204

Attn: Lisa Korner

Date: April 29, 1986

Date Received: April 11, 1986 | P.O. Number: 56528 | Job Number: 36516/rjc

Three (3) soil samples:

Sample Number	Date	Time
PJKS, 2-MW-3, IT	4/10/86	2:25
PJKS, 1-MW-2, IT	4/10/86	3:45
PJKS, 5-MW-5, IT	4/10/86	5:00

The samples were analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 601.

The samples were also analyzed for Aromatic volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 602. The results are listed on the following summary sheets.

A Quality Control Spike could not be performed due to insufficient sample amount.

I certify that this report truly represents the findings of work performed by me or under my direct supervision.

Robert I. Sundberg
Groupleader

Reviewed and Approved

Richard L. Merrell
Laboratory Director

Accredited by the American Council of Independent Laboratories

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client
Project PJKS Airforce Denver CO.
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36516-6
Field Sample No. PJKS, 1-MW-2, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No.

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

Engineering Science
Page 3

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	1.5	---	10.8	---	
1,2-Dichloroethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	77	---	11.4	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	10	---	13.9	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	62	---	16.8	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client
Project PJKS Airforce Denver CO.
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36516-9
Field Sample No. PJKS, 2-MW-3, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No.

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor 1:50
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	150	---	20.3	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 2-MW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	230	---	12.4	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	500	---	11.4	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	430	---	13.9	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	1200	---	16.8	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client
Project PJKS Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-12
Field Sample No. PJKS, 4-MW-4, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	4	---	14.9	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

Continued

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 4-MW-4, GW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	7	---	10.8	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	180	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	24	---	13.8	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	310	---	16.7	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56528
Client
Project PJKS Airforce Denver CO.
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36516-8
Field Sample No. PJKS, 5-MW-5, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No.

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-5, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	12	---	16.8	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client
Project PJKS Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-13
Field Sample No. PJKS, 5-MW-6, GW-3, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-6, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	2	---	10.8	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	530	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	ND<1	---	---	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	41	---	16.8	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client
Project PJKS Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other
Spike Source

Lab Sample No. 36528-14 Duplicate
Field Sample No. PJKS, 5-MW-6, GW-3, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Dilution Factor N/A
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-6, GW-3, IT Duplicate

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	2	---	10.8	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	460	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	2	---	13.9	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	27	---	16.8	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client
Project PJKS Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-15
Field Sample No. PJKS, 5-MW-6, GW-4, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-6, GW-4, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	3	---	10.9	---	
1,2-Dichloroethane	1	ND<1	---	---	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	600	---	11.3	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	3	---	14.0	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	36	---	16.8	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56428
Client
Project PJKS Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-11
Field Sample No. PJKS, 10-MW-8, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8010-21

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1	ND<1	---	---	---	
Bis(2-Chloroethoxy)methane	1	ND<1	---	---	---	
Bis(2-chloroisopropyl)ether	1	ND<1	---	---	---	
Bromobenzene	1	ND<1	---	---	---	
Bromodichloromethane	1	ND<1	---	---	---	
Bromoform	1	ND<1	---	---	---	
Bromomethane	1	ND<1	---	---	---	
Carbon tetrachloride	1	ND<1	---	---	---	
Chloroacetaldehyde	1	ND<1	---	---	---	
Chloral	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
Chloroethane	1	ND<1	---	---	---	
Chloroform	1	ND<1	---	---	---	
1-Chlorohexane	1	ND<1	---	---	---	
2-Chloroethyl vinyl ether	1	ND<1	---	---	---	
Chloromethane	1	ND<1	---	---	---	
Chloromethyl methyl ether	1	ND<1	---	---	---	
Chlorotoluene	1	ND<1	---	---	---	
Dibromochloromethane	1	ND<1	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 10-MW-8, GW-2, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Dichlorodifluoromethane	1	ND<1	---	---	---	
1,1-Dichloroethane	1	TR<1	---	10.9	---	
1,2-Dichloroethane	1	9	---	12.3	---	
1,1-Dichloroethylene	1	ND<1	---	---	---	
trans-1,2-dichloroethylene	1	65	---	13.8	---	
Dichloromethane	1	ND<1	---	---	---	
1,2-Dichloropropane	1	ND<1	---	---	---	
1,3-Dichloropropylene	1	ND<1	---	---	---	
1,1,2,2-Tetrachloroethane	1	ND<1	---	---	---	
1,1,1,2-Tetrachloroethane	1	ND<1	---	---	---	
Tetrachloroethylene	1	ND<1	---	---	---	
1,1,1-Trichloroethane	1	ND<1	---	---	---	
1,1,2-Trichloroethane	1	ND<1	---	---	---	
Trichloroethylene	1	400	---	16.7	---	
Trichlorofluoromethane	1	ND<1	---	---	---	
Trichloropropane	1	ND<1	---	---	---	
Vinyl chloride	1	ND<1	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client
Project PJKS Air Force Denver CO.
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36516-4
Field Sample No. PJKS, 1-MW-2, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No.

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client
Project PJKS Air Force Denver CO.
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36516-6
Field Sample No. PJKS, 2-MW-3, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No.

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56528
Client
Project PJKS Air Force Denver CO.
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36516-6
Field Sample No. PJKS, 5-MW-5, IT
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No.

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

17605 Fabrica Way • Cerritos. California 90701 • 213-921-9831 / 714-523-9200

CERTIFICATE OF ANALYSIS

Prepared For: Engineering Science
1100 Stout St., Suite 1100
Denver CO 80204

Attn: Lisa Korner

Date: May 16, 1986

Date Received: May 25, 1986 P O Number: 56423 Job Number: 36686/rjc

PARTIAL REPORT

Eleven (11) water samples.

Sample Number	Date	Time
PJKS, 5-MW-4, GW-3, IT	4-23-86	9:00
PJKS, 5-MW-5, GW-3, IT	4-23-86	10:00
PJKS, 4-MW-6, GW-5, IT	4-23-86	11:15
PJKS, 4-MW-6, GW-6, IT	4-23-86	11:15
PJKS, 2-MW-3, GW-3, IT	4-23-86	2:45
PJKS, Field Blank	4-23-86	4:00
PJKS, Trip Blank	4-23-86	4:00
PJKS, 1-MW-1, GW-3, IT	4-24-86	9:00
PJKS, 1-MW-2, GW-3, IT	4-24-86	10:15
PJKS, 1-SW-2, IT	4-24-86	11:15
PJKS, 10-MW-8, GW-3, IT	4-24-86	1:15

The samples were analyzed for semi-volatile organic contaminants using combined gas chromatography-mass spectrometry according to EPA Methods 625. Results for compounds on the EPA Hazardous Substances List are given on the enclosed summary sheets. No other semivolatile organic compounds were detected

The samples were analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 601.

The samples were also analyzed for aromatic volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 602. The results are listed on the following summary sheets.

I certify that this report truly represents the finding of work performed by me or under my direct supervision

Robert I. Sundberg
Group Leader

Reviewed and Approved

Richard L. Merrell
Laboratory Director

GC/MS ORGANICS ANALYSIS DATA SHEET
BASE/NEUTRAL AND ACID COMPOUNDS

NATIONAL TECHNOLOGY CORPORATION

SAMPLE IDENTIFICATION: 1-SW-1
DATE ANALYZED: 04/30/86
UNITS: UG/L

CAS #	COMPOUND	CONC
88-06-2	2,4,6-TRICHLOROPHENOL	2. ND
59-50-7	4-CHLORO-3-METHYLPHENOL	2. ND
95-57-8	2-CHLOROPHENOL	2. ND
120-33-2	2,4-DICHLOROPHENOL	2. ND
105-67-9	2,4-DIMETHYLPHENOL	2. ND
88-75-5	2-NITROPHENOL	2. ND
100-02-7	4-NITROPHENOL	2. ND
51-28-5	2,4-DINITROPHENOL	2. ND
534-52-1	4,6-DINITRO-2-METHYLPHENOL	2. ND
87-86-5	PENTACHLOROPHENOL	2. ND
108-95-2	PHENOL	2. ND
65-85-0	BENZOIC ACID	2. ND
95-48-7	2-METHYLPHENOL	2. ND
108-39-4	4-METHYLPHENOL	2. ND
95-95-4	2,4,5-TRICHLOROPHENOL	2. ND
83-32-9	ACENAPHTHENE	2. ND
120-82-1	1,2,4-TRICHLOROBENZENE	2. ND
118-74-1	HEXACHLOROBENZENE	2. ND
67-72-1	HEXACHLOROETHANE	2. ND
111-44-4	BIS(2-CHLOROETHYL)ETHER	2. ND
91-58-7	2-CHLORONAPHTHALENE	2. ND
95-50-1	1,2-DICHLOROBENZENE	2. ND
541-73-1	1,3-DICHLOROBENZENE	2. ND
106-46-7	1,4-DICHLOROBENZENE	2. ND
91-94-1	3,3'-DICHLOROBENZIDINE	2. ND
121-14-2	2,4-DINITROTOLUENE	2. ND
606-20-2	2,6-DINITROTOLUENE	2. ND
122-66-7	1,2-DIPHENYLHYDRAZINE	2. ND
206-44-0	FLUORANTHENE	2. ND
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	2. ND
101-55-3	4-BROMOPHENYL PHENYL ETHER	2. ND
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	2. ND
111-91-1	BIS(2-CHLOROETHOXY)METHANE	2. ND
87-68-3	HEXACHLOROBUTADIENE	2. ND
77-47-4	HEXACHLOROCYCLOPENTADIENE	2. ND
78-59-1	ISOPHORONE	2. ND
91-20-3	NAPHTHALENE	2. ND
98-95-3	NITROBENZENE	2. ND
86-30-6	N-NITROSODIPHENYLAMINE	2. ND
621-64-7	N-NITROSODIPROPLYAMINE	2. ND
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	2. ND
85-68-7	BUTYL BENZYL PHTHALATE	2. ND
84-74-2	DI-N-BUTYL PHTHALATE	2. ND
117-84-0	DI-N-OCTYL PHTHALATE	2. ND
84-66-2	DIETHYL PHTHALATE	2. ND
131-11-3	DIMETHYL PHTHALATE	2. ND
56-55-3	BENZO(A)ANTHRACENE	2. ND
50-32-8	BENZO(A)PYRENE	2. ND
205-99-2	BENZO(B)FLUORANTHENE	2. ND
207-08-9	BENZO(K)FLUORANTHENE	2. ND

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET - PAGE 2
BASE/NEUTRAL AND ACID COMPOUNDS

SAMPLE IDENTIFICATION: 1-SW-1
DATE ANALYZED: 04/30/86
UNITS: UG/L

CAS #	COMPOUND	CONC
218-01-9	CHRYSENE	2. ND
208-96-8	ACENAPHTHYLENE	2. ND
120-12-7	ANTHRACENE	2. ND
191-24-2	BENZO(GHI)PERYLENE	2. ND
86-73-7	FLUORENE	2. ND
85-01-8	PHENANTHRENE	2. ND
53-70-3	DIBENZO(A,H)ANTHRACENE	2. ND
193-39-5	INDENO(1,2,3-CD)PYRENE	2. ND
129-00-0	PYRENE	2. ND
100-51-6	BENZYL ALCOHOL	2. ND
106-47-8	4-CHLOROANILINE	2. ND
132-64-9	DIBENZOFURAN	2. ND
91-57-6	2-METHYLNAPHTHALENE	2. ND
88-74-4	2-NITROANILINE	2. ND
99-09-2	3-NITROANILINE	2. ND
100-01-6	4-NITROANILINE	2. ND

ND - THIS COMPOUND WAS NOT DETECTED; THE LIMIT OF DETECTION FOR THIS COMPOUND IS STATED TO THE LEFT OF THE ND SPECIFIER.

TR - TRACE, THIS COMPOUND WAS PRESENT, BUT WAS BELOW THE LEVEL AT WHICH THE CONCENTRATION COULD ACCURATELY BE DETERMINED. THE APPROXIMATE CONCENTRATION IS REPORTED FOR YOUR REFERENCE.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client
Project PJKS - Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-7
Field Sample No. PJKS, 1-MW-1, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client
Project PJKS - Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-9
Field Sample No. PJKS, 4-MW-4, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

4-MW-6

ES Job No. 56428
Client
Project PJKS - Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-10
Field Sample No. PJKS, 5-MW-6, GW-4, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	1.1	---	14.6	---	
1,3-Dichlorobenzene	1.0	TR<1.0	---	13.0	---	
1,4-Dichlorobenzene	1.0	1.7	---	12.5	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client
Project PJKS - Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-11 / 4-AMW-6
Field Sample No. PJKS, ~~5-MW-6~~, GW-3, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	TR<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	TR<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56428
Client
Project PJKS - Air Force, Denver, CO
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36528-8
Field Sample No. PJKS, 10-MW-8, GW-2, IT
Date Collected 4-11-86
Date Received 4-12-86
Date Analyzed 4-15-86
QC Report No. 8020-19

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

IT Results for 601 and 602 Methods
Dated 4/23/86 and 4/24/86

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-19
Field Sample No. PJKS, 1-MW-1, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-1, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	1.8	---	10.3	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	1.2	---	9.2	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	130	125	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-6
Field Sample No. PJKS, 1-MW-2, GW-3,ITT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-2-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 1-MW-2, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	2.0	---	10.4	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	1.2	---	21.9	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	1.2	---	21.9	---	
1,1,1-Trichloroethane	1.0	9.0	---	13.4	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	67.0	80	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-18
Field Sample No. PJKS, 2-MW-3, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 2-MW-3, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	12.7	334	10.3	11.9	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1,0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	1110	841	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-13
Field Sample No. PJKS, 5-MW-4, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-4, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	11.5	18.7	10.3	12.0	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	36.2	<1.0	11.0	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	1.2	1.6	21.9	14.8	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	1.2	1.6	21.9	14.8	
1,1,1-Trichloroethane	1.0	28.6	12.4	13.4	12.4	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	67.0	80.5	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-14
Field Sample No. PJKS, 5-MW-5, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 5-MW-5, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	2.3	---	11.1	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	TR<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	ND<1.0	---	---	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. $ 36686-15, 36686-16
Field Sample No. PJKS, 4-MW-6, GW-5, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

$ - Different amounts of sample were used in analysis for quantitation purposes.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 4-MW-6, GW-5, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	4.0	---	10.3	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	1.9	---	9.3	---	
trans-1,2-dichloroethylene	1.0	290.0	4.0	11.0	9.1	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	190.0	194	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-17
Field Sample No. PJKS, 4-MW-6, GW-6, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 4-MW-6, GW-6, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	4.2	---	10.4	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	350	3.6	11.0	9.2	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	9.0	---	13.5	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	190	178	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-5
Field Sample No. PJKS, 10-MW-8, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-2-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, 10-MW-8, GW-3, IT

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	18.0	<1.0	13.4	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	490	101	16.5	12.8	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-20
Field Sample No. PJKS, Field Blank
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, Field Blank

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	2.2	0.7	16.4	12.9	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-21
Field Sample No. PJKS, Trip Blank
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 4-30-86
QC Report No. 601-28

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	1.0	ND<1.0	---	---	---	
Bis(2-Chloroethoxy)methane	1.0	ND<1.0	---	---	---	
Bis(2-chloroisopropyl)ether	1.0	ND<1.0	---	---	---	
Bromobenzene	1.0	ND<1.0	---	---	---	
Bromodichloromethane	1.0	ND<1.0	---	---	---	
Bromoform	1.0	ND<1.0	---	---	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	ND<1.0	---	---	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
Chloroethane	1.0	ND<1.0	---	---	---	
Chloroform	1.0	ND<1.0	---	---	---	
1-Chlorohexane	1.0	ND<1.0	---	---	---	
2-Chloroethyl vinyl ether	1.0	ND<1.0	---	---	---	
Chloromethane	1.0	ND<1.0	---	---	---	
Chloromethyl methyl ether	1.0	ND<1.0	---	---	---	
Chlorotoluene	1.0	ND<1.0	---	---	---	
Dibromochloromethane	1.0	ND<1.0	---	---	---	

Continued

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

PJKS, Trip Blank

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	ND<1.0	---	---	---	
1,2-Dichloroethane	1.0	ND<0.1	---	---	---	
1,1-Dichloroethylene	1.0	ND<1.0	---	---	---	
trans-1,2-dichloroethylene	1.0	ND<1.0	---	---	---	
Dichloromethane	1.0	ND<1.0	---	---	---	
1,2-Dichloropropane	1.0	ND<1.0	---	---	---	
1,3-Dichloropropylene	1.0	ND<1.0	---	---	---	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	ND<1.0	---	---	---	
1,1,1-Trichloroethane	1.0	ND<1.0	---	---	---	
1,1,2-Trichloroethane	1.0	ND<1.0	---	---	---	
Trichloroethylene	1.0	TR<1.0	---	---	---	
Trichlorofluoromethane	1.0	ND<1.0	---	---	---	
Trichloropropane	1.0	ND<1.0	---	---	---	
Vinyl chloride	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-10
Field Sample No. PJKS, 1-MW-1, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-10-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-14
Field Sample No. PJKS, 1-MW-2, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-10-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-17
Field Sample No. PJKS, 2-MW-3, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor 1:5
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	5.0	ND<5.0	---	---	---	
Chlorobenzene	5.0	TR<5.0	---	---	---	
1,2-Dichlorobenzene	5.0	TR<5.0	---	---	---	
1,3-Dichlorobenzene	5.0	TR<5.0	---	---	---	
1,4-Dichlorobenzene	5.0	TR<5.0	---	---	---	
Ethyl benzene	5.0	TR<5.0	---	---	---	
Toluene	5.0	TR<5.0	---	---	---	
Xylenes (Dimethyl benzene)	5.0	ND<5.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-5
Field Sample No. PJKS, 5-MW-4, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-12-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-13
Field Sample No. PJKS, 5-MW-5, GW-3, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-12-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	TR<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-15
Field Sample No. PJKS, 4-MW-6, GW-5, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	ND<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	ND<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-16
Field Sample No. PJKS, 4-MW-6, GW-6, IT
Date Collected 4-23-86
Date Received 4-25-86
Date Analyzed 5-13-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	TR<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	TR<1.0	---	---	---	
Toluene	1.0	TR<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science
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ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56423
Client
Project Air Force PJKS
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36686-6
Field Sample No. PJKS, 10-MW-8, GW-3, IT
Date Collected 4-24-86
Date Received 4-25-86
Date Analyzed 5-12-86
QC Report No. 602-23

Sample Matrix:
/X/ Water (ug/L)
/__/ Soil
/__/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1.0	ND<1.0	---	---	---	
Chlorobenzene	1.0	TR<1.0	---	---	---	
1,2-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,3-Dichlorobenzene	1.0	ND<1.0	---	---	---	
1,4-Dichlorobenzene	1.0	ND<1.0	---	---	---	
Ethyl benzene	1.0	TR<1.0	---	---	---	
Toluene	1.0	ND<1.0	---	---	---	
Xylenes (Dimethyl benzene)	1.0	ND<1.0	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Results from Method 625 - BNA's
Dated 1/16/86

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/14/86
Report Date: 01/23/86

Sample I.D. No: 56528 PJKS, 1-MW-1
GW-1, ES 12:30
01-86-1126

Date Received: 01/16/86

APPL Sample No: A005-05466W

Date Extracted: 01/20/86

Method 625 Results:

Revised Report

Acid Cmpds	Concentration µg/l	Detection Limit µg/l
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine (azobenzene)	ND	6
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

Sample I.D. No: 56528 PJKS, 1-MW-1 Page 2 of 3
GW-1, ES 12:30
01-86-1126
APPL Sample No: A005-05466W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluroanthene	ND	20
Benzo(k)fluroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDD	ND	50
4.4'-DDT	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxaphene	ND	50

Sample I.D. No: 56528 PJKS, 1-MW-1 Page 3 of 3
GW-1, ES 12:30
01-86-1126
APPL Sample No: A005-05466W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
α-BHC	ND	50
β-BHC	ND	50
δ-BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By Diane Anderson

Checked By Pamela Cocon

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/14/86
Report Date: 01/23/86

Sample I.D. No: 56528 PJKS, 1-MW-2
GW-1, ES 3:45
01-86-1127
APPL Sample No: A005-05467W

Date Received: 01/16/86
Date Extracted: 01/20/86

Method 625 Results:

Revised Report

Acid Cmpds	Concentration µg/l	Detection Limit µg/l
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine	ND	6
(azobenzene)	ND	
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

Sample I.D. No: 56528 PJKS, 1-MW-2 Page 2 of 3
GW-1, ES 3:45
01-86-1127
APPL Sample No: A005-05467W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluroanthene	ND	20
Benzo(k)fluroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDE	ND	50
4,4'-DDD	ND	50
4,4'-DDT	ND	50
Endrin	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxaphene	ND	50

Sample I.D. No: 56528 PJKS, 1-MW-2 Page 3 of 3
GW-1, ES 3:45
01-86-1127
APPL Sample No: A005-05467W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
α-BHC	ND	50
β-BHC	ND	50
δ-BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By Diane Anderson

Checked By Pamela Cooper

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/15/86
Report Date: 01/23/86

Sample I.D. No: PJKS, 01-86-1130
2-MW-3, GW-1 ES

Date Received: 01/17/86

APPL Sample No: A005-05468W

Date Extracted: 01/20/86

Method 625 Results:

Revised Report

Acid Cmpds	Concentration µg/l	Detection Limit µg/l
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine	ND	6
(azobenzene)	ND	
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

Sample I.D. No: PJKS 01-86-1130 Page 2 of 3
2-MW-3, GW-1, ES

APPL Sample No: A005-05468W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluroanthene	ND	20
Benzo(k)fluroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDE	ND	50
4,4'-DDD	ND	50
4,4'-DDT	ND	50
Endron	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxaphene	ND	50

Sample I.D. No: PJKS 01-86-1130 Page 3 of 3
2-MW-3, GW-1, ES

APPL Sample No: A005-05468W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
α-BHC	ND	50
β-BHC	ND	50
δ-BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By Diane Anderson

Checked By Pamela Cooper

ENGINEERING-SCIENCE

CHAIN OF CUSTODY RECORD

ES JOB NO.	PROJECT NAME/LOCATION	NO. OF CONTAINERS	ANALYSES REQUIRED	SHIP TO:
	PJKS		625 SCAN	ENGINEERING-SCIENCE, INC. 1687 Tullie Circle Suite 105 Atlanta, GA. 30329 (404) 325-5923
SAMPLER(S): (Signature)				
Lisa Korner				

DATE	TIME	SAMPLE DESCRIPTION	NO. OF CONTAINERS	625 SCAN	REMARKS
1/16/86		01-86-1130 PJKS, 2-MW-3, EW-1, ES	1	✓	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
JR Adamson					

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks
		S. DePaz	1/17/86 9:30	

L-409

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science
1687 Tullie Circle, Suite 105
Atlanta, Georgia 30329
Attn: Johnny Adamson

Sample Date: 01/16/86
Report Date: 01/23/86

Sample I.D. No: PJKS, 2-MW-7, GW-1, ES 01-86-1177

Date Received: 01/21/86

APPL Sample No: A005-05474W

Date Extracted: 01/22/86

Method 625 Results:

Revised Report

Acid Cmpds	Concentration µg/l	Detection Limit µg/l
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	15

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine (azobenzene)	ND ND	6
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4-bromophenyl phenyl ether	ND	6

APPL Sample No: A005-05474W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
bis-(2-chloroisopropyl) ether	ND	4
bis-(2-chloroethoxy) methane	ND	4
Hexachlorobutadiene	ND	6
Hexachlorocyclopentadiene	ND	40
Isophorone	ND	20
Napthalene	ND	1
Nitrobenzene	ND	4
N-nitrosodimethylamine	ND	40
N-nitrosodiphenylamine	ND	8
N-nitrosodi-n-propylamine	ND	6
bis-(2-ethylhexyl) phthalate	ND	12
Butyl benzyl phthalate	ND	18
Di-n-butyl phthalate	ND	5
Di-n-octyl phthalate	ND	10
Diethyl phthalate	ND	4
Dimethyl phthalate	ND	8
Benzo (a) anthracene	ND	10
Benzo (a) pyrene	ND	14
3,4-benzofluroanthene	ND	20
Benzo(k)fluroanthene	ND	20
Chrysene	ND	8
Acenaphthylene	ND	2
Anthracene	ND	4
Benzo(ghi)perylene	ND	14
Fluorene	ND	4
Phenanthrene	ND	6
Dibenzo(a,h)anthracene	ND	16
Indeno(1,2,3-cd)pyrene	ND	14
Pyrene	ND	6
Dieldrin	ND	50
4,4'-DDE	ND	50
4,4'-DDD	ND	50
4,4'-DDT	ND	50
Endrin	ND	50
Endosulfan sulfate	ND	50
Endrin aldehyde	ND	50
Chlordane	ND	50
Toxphene	ND	50

Sample I.D. No: PJKS 2-MW-7, GW-1 Page 3 of 3
ES 01-86-1177

APPL Sample No: A005-05474W

Method 625 Results con't

Base/Neutral Cmpds	Concentration µg/l	Detection Limit µg/l
α-BHC	ND	50
β-BHC	ND	50
δ-BHC	ND	50
Lindane	ND	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND	100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

Tested By Diane Anderson

Checked By Pamela Cooper

ENGINEERING-SCIENCE

CHAIN OF CUSTODY RECORD

ES JOB NO.	PROJECT NAME/LOCATION
56528	PJKS

SAMPLER(S): (Signature)

DATE	TIME	SAMPLE DESCRIPTION	NO. OF CONTAINERS	623	REMARKS
1/20/86	5:00p	01-86-1177	1	✓	

ANALYSES REQUIRED

SHIP TO:
ENGINEERING-SCIENCE, INC.
1687 Tullie Circle
Suite 105
Atlanta, GA. 30329
(404) 325-5923

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Johnny P. Adamson	1/20 5:00p				

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks
		L DePaz	1/21/86 1637	

L-413

Results from ES for Metals and Inorganic Parameters

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-14-86
Date Received 1-15-86

Sample Matrix:
[✓] Water (ug/L) mg/L
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adams
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	O&G	TDS	Phenolics	TKN			Notes
PJKS, Imw-1, GW-1, ES	01-86-1126	0.019	2.8	<1.0	490	<0.005	1.1			
PJKS, I-mw-2, GW-1, ES	01-86-1127	0.0366	4.7	<1.0	340	<0.005	<0.1			
Date Analyzed	M / D	1/16	1/16+17	1/22	1/2	1/16	1/16			
Analytical Method		EPA 354.1	EPA-352.1	EPA 413.1	EPA 160.3	EPA-420.1	EPA-351.3			

* If % moisture is reported, results are presented on a dry-weight basis.

L-414

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1
Report

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-15-86
Date Received 1-16-86

Sample Matrix:
[✓] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	O&G	TDS	Phenolics				Notes
PJKS,2-mw-3,GW-1,ES	01-86-1130	0.181	4.0	<1.0	540	<0.005				
PJKS,10-mw-5,GW-1,ES	01-86-1131	0.011	3.0*	TA	410	<0.005				A
PJKS,4-mw-6,GW-1,ES	01-86-1132	0.011	1.8*	<1.0	370	B				B
PJKS,4-mw-6,GW-2,ES	01-86-1133	0.009C	2.2*	<1.0	370	B				B
Date Analyzed	M/D	1/16	1/16+17	1/22	1/21	1/16				
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 160.3	EPA 420.1				

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: No oil & grease sample provided. (RA)
B: No phenolics sample provided. (RA)

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Page 1 of 1
Report

ES Job No. 56528
Client USAF
Project PJKS. Denver
Client No.
Date Collected 1-16-86
Date Received 1-17-86

Sample Matrix:
☑ Water (ug/L) (mg/L)
☐ Soil (ug/g) (ug/Kg)
☐ Other

QC Report No.
Laboratory Supervisor Approval: Johnny R Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	NO_2	NO_3	O&G	TDS	Phenolics	TKN			Notes
PJKS.1-mw-7,GW-1,ES	01-86-1177	0.118	1.1	<1.0	B	0.007	10.1			B
PJKS,4-mw-4,GW-1,ES	01-86-1178	0.026	<0.1	<1.0	B	A	21.6			A/B
PJKS,4-mw-5,GW-1,ES	01-86-1179	<0.011	<0.1	4070	B	A	3.5			A/B
Date Analyzed	M/D	1/17	1/22	1/22	N/A	1/20	1/21			
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 160.3	EPA 420.1	EPA 351.3			

L-416

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: No phenolics samples provided for these QRA
B: TDS samples not provided for series of samples QRA

059J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 5652B
Client USAF
Project PJKS Plant
Client No.
Date Collected 14 Jan. 86
Date Received 15 Jan. 86

Sample Matrix:
[X] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	As	Cr	Hg	Se									
PJKS,1-MW-1,GW-1,ES	01-86-1126	0.011	<0.11	0.0009	0.002									
PJKS,1-MW-2,GW-1,ES	01-86-1127	<0.002	<0.11	<0.0002	<0.0003									
Date Analyzed	M/D	2/19	2/18	2/21	2/20									
Analytical Method	**	EPA 206.3	EPA 218.1	EPA 245.1	EPA 270.3									

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

8593111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 15Jan.86
Date Received 16Jan.86

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Sample Matrix:
[X] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

Field Sample No.	Lab Sample No.	As	Cr	Hg	Se									
PJKS,2-MW-3,QW-1,ES	01-86-1130	<0.002	<0.11	<0.0002	<0.002									
Date Analyzed	M/D	2/19	2/18	2/21	2/20									
Analytical Method	**	EPA 206.3	EPA 218.1	EPA 245.1	EPA 270.3									

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

L-418

8593111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 15 Jan 86
Date Received 16 Jan. 86

Sample Matrix:
[X] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adaman
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	As	Cd	Hg	Pb	Se								
PJKS,4-MW-6,GW-1,ES	01-86-1132	<0.002	<0.02	<0.0002	<0.12	<0.003								
PJKS,4-MW-6,GW-2,ES	01-86-1133	<0.002	<0.02	<0.0002	<0.12	<0.003								
Date Analyzed	M/D	2/19	2/18	2/21	2/18	2/20								
Analytical Method	**	EPA 206.3	EPA 213.1	EPA 245.1	EPA 239.1	EPA 270.3								

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

0593111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-15-86
Date Received 1-16-86

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Sample Matrix:
[✓] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

Field Sample No.	Lab Sample No.	NO_2	NO_3	O&G	TDS	Phenolics				Notes
PJKS 2-mw-3, GW-1, ES	01-86-1130	0.151	4.0	<1.0	540	<0.005				
PJKS 10-mw-5, GW-1, ES	01-86-1131	0.011	3.0	~~1A~~	410	<0.005				A
PJKS 4-mw-6, GW-1, ES	01-86-1132	0.011	1.8	<1.0	370	~~B~~				B
PJKS 4-mw-6, GW-2, ES	01-86-1133	0.095	2.2	<1.0	370	~~B~~				B
Date Analyzed	M / D	1 / 11	1 / 16+17	1 / 22	1 / 21	1 / 16				
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 160.3	EPA 420.1				

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: No 0.1 & grease sample provided. (JKA)
B: No phenolics sample provided. (JKA)

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-16-86
Date Received 1-17-86

Sample Matrix:
[x] Water (ug/L) mg/L
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	NO_2	NO_3	O&G	TDS	Phenolics	TKN			Notes
PJKS 2-mw-7, GW-1, ES	01-86-1177	0.118	1.1	<1.0	B	0.007	10.1			B
PJKS 4-mw-4, GW-1, ES	01-86-1178	0.026	<0.1	<1.0	B	A	21.6			A/B
PJKS 4-mw-1, GW-1 ES	01-86-1179	<0.011	<0.1	4070	B	A	3.5			A/B
Date Analyzed	M/D	1/17	1/22	1/22	N/A	1/20	1/21			
Analytical Method		EPA 352.1	EPA-352.1	EPA 413.1	EPA 160.3	EPA 420.1	EPA 351.3			

* If % moisture is reported, results are presented on a dry-weight basis.

Note A: No phenolics samples provided for these QRC
B: TDS samples not provided for series of samples QRC

L-421

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client USAF
Project PJKS Denver
Client No.
Date Collected 1-14-86
Date Received 1-15-86

Sample Matrix:
[✓] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture *

Field Sample No.	Lab Sample No.	NO_2	NO_3	O&G	TDS	Phenolics	TKN			Notes
PJKS, 1mw-1, GW-1, ES	01-86-1126	0.019	2.8	<1.0	490	<0.005	1.1			
PJKS, 1-mw-2, GW-1, ES	01-86-1127	0.0366	4.7*	<1.0	340	<0.005	<0.1			
Date Analyzed	M / D	1/16	1/16+17*	1/22	1/21	1/16 → J.A.T.	1/16 Atlanta lab ok'd.			
Analytical Method		EPA 354.1	EPA 352.1	EPA 413.1	EPA 160.3	EPA 420.1	EPA 351.3			

* If % moisture is reported, results are presented on a dry-weight basis.

L-422

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 15Jan.86
Date Received 16Jan.86

Sample Matrix:
[X] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adaman
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	As	Cd	Hg	Pb	Se								
PJKS,4-MW-6,EW-1,ES	01-86-1132	<0.002	<0.02	<0.0002	<0.12	<0.002								
PJKS,4-MW-6,EW-2,ES	01-86-1133	<0.002	<0.02	<0.0002	<0.12	<0.002								
Date Analyzed	M / D	2/19	2/18	2/21	2/18	2/20								
Analytical Method	**	EPA 206.3	EPA 213.1	EPA 245.1	EPA 239.1	EPA 270.3								

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

Report

ES Job No. 56528
Client USAF
Project PJKS Plant
Client No.
Date Collected 16 Jan. 86
Date Received 17 Jan. 86

Sample Matrix:
[X] Water (ug/L) (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	As	Cd	Cr	Hg	Pb	Se							
PJKS, 2-MW-7, GW-1, ES	01-86-1177	<0.002	A	<0.11	<0.0002	B	0.004							
PJKS, 4-MW-4, GW-1, ES	01-86-1178	<0.002	<0.02	<0.11	<0.0002	<0.12	<0.002							
PJKS, 4-MW-5, GW-1, ES	01-86-1179	<0.002	<0.02	<0.11	<0.0002	<0.12	0.002							
Date Analyzed	M / D	2/19	2/18	2/19	2/21	2/18	2/20							
Analytical Method	**	EPA 206.3	EPA 213.1	EPA 218.1	EPA 245.1	EPA 239.1	EPA 270.3							

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Note A: Cadmium on sample 1177 not requested.
B: Lead on sample 1177 not requested.

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56528
Client Lisa Kanner
Project PJKS Dinner
Client No.
Date Collected 23/24 April 86
Date Received 24/25 April 86

QC Report No.
Laboratory Supervisor Approval: Johnny R Adamson
Dilution Factor
*Moisture

Sample Matrix:
[X] Water ~~(ug/L)~~ (mg/L)
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

Field Sample No.	Lab Sample No.	NO_3	Data Analyzed	Det. Limit						Notes
S-MW-4,GW-3	04-86-1113	0.38	4/24/86	<0.1						
S-MW-5,GW-3	04-86-1114	0.46	4/24/86	<0.1						
I-MW-2,GW-3	04-86-1126	1.7	4/25/86	<0.1						
Date Analyzed										
Analytical Method										

Use these NO_3 results
The ones dated 4/11/86 are no good
6.3.86 from J. Adamson

* If % moisture is reported, results are presented on a dry-weight basis.

L-425

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56528
Client Lisa Kanen
Project PJKS Denver
Client No.
Date Collected 23/24 April 86
Date Received 24/25 April 86

Sample Matrix:
[X] Water ~~(ug/L)~~ mg/L
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	Hg	Det. Limit
5-MW-4, EW-3	04-86-1113	ND	0.0005
5-MW-5, EW-3	04-86-1114	ND	
4-MW-6, EW-5	04-86-1115	ND	
4-MW-6, EW-6	04-86-1116	ND	
2-MW-3, EW-3	04-86-1117	ND	
1-MW-1, EW-3	04-86-1125	ND	
1-MW-2, EW-3	04-86-1126	ND	
10-MW-8, EW-3	04-86-1128	ND	
1-SW-2	04-86-1127	ND	
Date Analyzed	M D	5/12	
Analytical Method	**	EPA 245.1	

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

859J111

L-426

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56528
Client Lisa Korner
Project PJKS Denver
Client No.
Date Collected
Date Received

Sample Matrix:
/X/ Water (~~ug/L~~) (mg/L)
/ / Soil (ug/g) (ug/Kg)
/ / Other

QC Report No.
Laboratory Supervisor Approval: Johnny R. Adamson
Dilution Factor
*Moisture %

Field Sample No.	Lab Sample No.	Cd	Pb	Lead D.L.	Cad. D.L.	Tl	Thal D.L.							
1-SW-1	01-86-1086	<0.01	<0.13	<0.13	<0.01	<0.23	<0.23							
2-MW-3,GW-1	01-86-1130	<0.01	<0.13	↓	↓	<0.23	↓							
2-MW-7,GW-1	01-86-1177	<0.01	<0.13			<0.23								
1-MW-1,GW-3	04-86-1125	<0.01	<0.13			<0.23								
1-MW-2,GW-3	04-86-1126	<0.01	<0.13	↓	↓	<0.23	↓							
Date Analyzed	M/D	5/8	5/8			5/8								
Analytical Method	**													

Original sample

L-427

* If % moisture is reported, results are presented on a dry-weight basis.

** F = Flame AAS C = Cold Vapor AAS G = Graphite Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

859J111

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report

ES Job No. 56528
Client Lisa Korner
Project PJKS
Client No.
Date Collected
Date Received 11 April 86

Sample Matrix:
[X] Water (~~ug/L~~) mg/L
[ ] Soil (ug/g) (ug/Kg)
[ ] Other

QC Report No.
Laboratory Supervisor Approval: Johnny P. Cidamon
Dilution Factor
*Moisture

Field Sample No.	Lab Sample No.	TKN	NO_3	TDS						Notes
4/10/86, 2:25, 2MW3	04-86-1073	1.84	X	X	(Very muddy sample)					
3:45, 1MW2	04-86-1074	X	1.32	X						
5:00, 5MW5	04-86-1075	X	1.33	463						
4/11/86, 3:15, 4MW4, GW2	04-86-1092	X	X	550						
Date Analyzed	M / D	4/15	4/11	4/11+K						
Analytical Method		EPA 351.3	EPA 352.1	EPA 160.3						

T-428

* If % moisture is reported, results are presented on a dry-weight basis.

859J111

Results from Radiation Scan

ATTACHMENT 1 RESULTS

Sample Number	Collection Date	Analysis	Results pCi/L ± 2 σ
MW-6 GW-1	1/15/86	Gross Alpha	180 ± 60
		Gross Beta	200 ± 10
		^{228}Th	1.13 ± 0.06
		^{230}Th	0.56 ± 0.05
		^{232}Th	0.80 ± 0.05
		Ge(Li) Scan: ^{226}Ra	70 ± 10
MW-6 GW-2	1/15/86	Gross Alpha	130 ± 30
		Gross Beta	250 ± 20
		^{228}Th	0.65 ± 0.06
		^{230}Th	0.30 ± 0.04
		^{232}Th	0.48 ± 0.04
		Ge(Li) Scan: ^{226}Ra	80 ± 10
MW-4 GW-1	1/16/86	Gross Alpha	250 ± 20
		Gross Beta	120 ± 20
		^{228}Th	8.2 ± 0.4
		^{230}Th	6.5 ± 0.4
		^{232}Th	5.8 ± 0.3
		Ge(Li) Scan: ^{226}Ra	120 ± 10
MW-5 GW-1	1/16/86	Gross Alpha	270 ± 20
		Gross Beta	160 ± 30
		^{228}Th	4.1 ± 0.2
		^{230}Th	2.2 ± 0.2
		^{232}Th	2.8 ± 0.2
		Ge(Li) Scan: ^{226}Ra	140 ± 10

* includes radium, uranium, radon, etc.

5,7541

A				B	CHEMISTRY DATA	WT (DIS) 23.0 mg	C	LABORATORY IDENTIFICATION
SOCIA	GN 86 0003 AFP PJKS, Waterton, CO.	18601075		WT OR VOL ANALYZED	500ml.	WT (SUS)	RHL NO.	
SUBM	Col: 21-MAY-86	Q253D Rec: 03-JUN-86		CHEMICAL RECOVERY		SEP TIME	BASE CODE	
AFB	4ABGP Brooks AFB	WATER TX 78235		SPIKE RHL NO.		VOL SPIKE ADDED	DATE REC	BY
ANALY	Brush Creek station 1 above D-1 landfill by Testing Stand D-2	Logged by PJ		REMARKS	ALPHA-BETA	CHEM COMP 10 Jun 86 BY	DATE COMP	BY

D COUNTING DATA			E RESULTS	ACTIVITY	± ERROR	UNITS	NUCLIDE	ACTIVITY	± ERROR	UNITS
	64000									
COUNTER AND EFF	5		GROSS ALPHA DIS	<1.8	± MDA	PCI/L			±	
TIME AND TOT CTS	100/12/747		GROSS ALPHA SUS		±	PCI/L			±	
TIME AND BKG CTS	78/1014/1000		GROSS ALPHA (URINE)		±	PCI/24H			±	
NET CPM			GROSS ALPHA (SOIL)		±	PCI/GD			±	
DATE AND TIME START	10 JUN 86		GROSS ALPHA (VEG)		±	PCI/GA			±	
			GROSS ALPHA (AIR FILTER)		±	PCI/M^3			±	
COUNTER AND EFF			GROSS BETA DIS	41.9	± 3.6	PCI/L			±	
TIME AND TOT CT			GROSS BETA SUS		±	PCI/L			±	
TIME AND BKG CTS			GROSS BETA (URINE)		±	PCI/24H			±	
NET CPM			NET BETA (URINE)		±	PCI/24H			±	
DATE AND TIME START			GROSS BETA (SOIL)		±	PCI/GD			±	
			GROSS BETA (VEG)		±	PCI/GA			±	
RADON	CELL NO.		GROSS BETA (AIR FILTER)		±	PCI/M^3			±	
DATE COUNTED	TIME STARTED		SAMPLE WT DIS			MG/L			±	
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS			MG/L			±	
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)			ML			±	
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)			M^3			±	
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT						±	
NCPM	NET SAMPLE ACTIVITY		RECOVERY		±	%	COUNT COMP 18 JUN 1986	BY		

L 430

Attachment 1

RADIOLOGICAL SAMPLE DATA

A	GN 86 0003	18601075	B CHEMISTRY DATA	WT (DIS)	C LABORATORY IDENTIFICATION
SOCI	ATP POICS, Waterton, Co	0253D	WT OR VOL ANALYZED 600 ml	WT (SUS)	RHL NO
SUBI	Col: 21-MAY-86	Rec: 03-JUN-86	CHEMICAL RECOVERY	SEP TIME	BASE CODE
AFB	4ABGP	WATER	SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC / BY
ANAI	Brush Creek Sp. 1	TX 78233 Logged by PJ	REMARKS GAMMA	CHEM COMP 6/5/86 BY L	DATE COMP / BY

D COUNTING DATA		1/11	0042196	E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
COUNTER AND EFF				GROSS ALPHA DIS		PCI/L	U-235	<46	R/C
TIME AND TOT CTS				GROSS ALPHA SUS		PCI/L	U-40	<83	"
TIME AND BKG CTS				GROSS ALPHA (URINE)		PCI/24H	Cr-51	<96	"
NET CPM				GROSS ALPHA (SOIL)		PCI/GD	Co-60	<11	"
DATE AND TIME START				GROSS ALPHA (VEG)		PCI/GA	Zr-95	<15	"
				GROSS ALPHA (AIR FILTER)		PCI/M^3	Nb-95	<8	"
COUNTER AND EFF				GROSS BETA DIS		PCI/L	Mo-99	<450	"
TIME AND TOT CT				GROSS BETA SUS		PCI/L	Ru-103	<9	"
TIME AND BKG CTS				GROSS BETA (URINE)		PCI/24H	Ru-106	<47	"
NET CPM				NET BETA (URINE)		PCI/24H	I-131	<30	"
DATE AND TIME START				GROSS BETA (SOIL)		PCI/GD	Cs-134	<9	"
				GROSS BETA (VEG)		PCI/GA	Cs-137	<7	"
RADON	CELL NO.			GROSS BETA (AIR FILTER)		PCI/M^3	Ba-140	<12	"
DATE COUNTED	TIME STARTED			SAMPLE WT DIS		MG/L	Cr-140	20	± 17 "
TOTAL TIME	UNCORRECTED SAMPLE ACT			SAMPLE WT SUS		MG/L			
TOTAL COUNTS	TIME COR FACTOR			SAMPLE VOL (URINE)		ML			
GROSS CPM	CORRECTED SAMPLE ACT			SAMPLE VOL (AIR FILTER)		M^3			
BKG CPM	CONTROL ROOM ACTIVITY			SAMPLE WT					
NCPM	NET SAMPLE ACTIVITY			RECOVERY		%	COUNT COMP 12 JUN 1986		BY R

L 431

S 1751
S 7341C

A	GN 86 0005	18601077	B CHEMISTRY DATA	WT (DIS) 41.7 mg	C LABORATORY IDENTIFICATION
SO	AFP 70KS, Watertown, CO	02530	WT OR VOL ANALYZED 200ml	WT (SUS)	RHL NO
SU	Col: 21-MAY-86	Rec: 03-JUN-86	CHEMICAL RECOVERY	SEP. TIME	BASE CODE
AF	4ABGP Brooks AFB	WATER TX 78235 Logged by FJ	SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC / BY
AN	Brush Creek Station 2 below D-1 Landfill		REMARKS [illegible]	CHEM COMP 10 June / BY	DATE COMP / BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
	64000							
COUNTER AND EFF	7		GROSS ALPHA DIS	<1.9 ± MDA	PCI/L		±	
TIME AND TOT CTS	100/13/360		GROSS ALPHA SUS	±	PCI/L		±	
TIME AND BKG CTS	78/1014/1000		GROSS ALPHA (URINE)	±	PCI/24H		±	
NET CPM			GROSS ALPHA (SOIL)	±	PCI/GD		±	
DATE AND TIME START	10 JUN 86		GROSS ALPHA (VEG)	±	PCI/GA		±	
			GROSS ALPHA (AIR FILTER)	±	PCI/M^3		±	
COUNTER AND EFF			GROSS BETA DIS	17.0 ± 2.5	PCI/L		±	
TIME AND TOT CT			GROSS BETA SUS	±	PCI/L		±	
TIME AND BKG CTS			GROSS BETA (URINE)	±	PCI/24H		±	
NET CPM			NET BETA (URINE)	±	PCI/24H		±	
DATE AND TIME START			GROSS BETA (SOIL)	±	PCI/GD		±	
			GROSS BETA (VEG)	±	PCI/GA		±	
RADON	CELL NO.		GROSS BETA (AIR FILTER)	±	PCI/M^3		±	
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L		±	
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L		±	
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML		±	
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3		±	
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT				±	
NCPM	NET SAMPLE ACTIVITY		RECOVERY	±	%	COUNT COMP 12 JUN 1986		BY Robert F. [illegible]

L 432

[illegible] RADIOLOGICAL FAMILY OF DAGER

A	GN 86 0005	18601077	B CHEMISTRY DATA	WT (DIS)	C LABORATORY IDENTIFICATION
SOCI	AFP PJKS, Waterton, Co	0253D	WT OR VOL ANALYZED 600 ml	WT (SUS)	RHL NO
SUBI	Col: 21-MAY-86	Rec: 03-JUN-86	CHEMICAL RECOVERY	SEP TIME	BASE CODE
AFB	4ABGP Brooks AFB	WATER TX 78235	SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC / BY
ANAI	Brook Cr. St. 2	Logged by PJ	REMARKS GAMMA	CHEM COMP 6/5/86 BY C	DATE COMP / BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
COUNTER AND EFF	1/2	0042198	GROSS ALPHA DIS		PCI/L	U-235	<43	PCI/L
TIME AND TOT CTS			GROSS ALPHA SUS		PCI/L	K-40	<92	"
TIME AND BKG CTS			GROSS ALPHA (URINE)		PCI/24H	Cr-51	<62	"
NET CPM			GROSS ALPHA (SOIL)		PCI/GD	Co-60	<12	"
DATE AND TIME START			GROSS ALPHA (VEG)		PCI/GA	Zr-95	<16	"
			GROSS ALPHA (AIR FILTER)		PCI/M^3	Nb-95	<12	"
COUNTER AND EFF			GROSS BETA DIS		PCI/L	Mo-99	<560	"
TIME AND TOT CT			GROSS BETA SUS		PCI/L	Ru-103	<4	"
TIME AND BKG CTS			GROSS BETA (URINE)		PCI/24H	Ru-106	<55	"
NET CPM			NET BETA (URINE)		PCI/24H	I-131	<28	"
DATE AND TIME START			GROSS BETA (SOIL)		PCI/GD	Cs-134	<7	"
			GROSS BETA (VEG)		PCI/GA	Cs-137	<4	"
RADON	CELL NO.		GROSS BETA (AIR FILTER)		PCI/M^3	Ba-140	<47	"
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L	La-140	<16	"
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L			
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML			
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3			
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT					
NCPM	NET SAMPLE ACTIVITY		RECOVERY		%	COUNT COMP 12 JUN 1986		BY

L 433

AFSC Form 3515, OCT 86 REPLACES AMD FORM 849, AFR 82, WHICH IS OBSOLETE

RADIOLOGICAL SAMPLE DATA

5,753

A	SAMPLE IDENTIFICATION	TYPE SAMPLE	B	CHEMISTRY DATA	WT (DIS) 49.3 mg	C	LABORATORY IDENTIFICATION
SOC	GN 86 0006 AFP P/K's, Watertown, CO	18601079 Q253D		WT OR VOL ANALYZED 200ml	WT (SUS)		RHL NO
SUB	Col: 21-MAY-86	Rec: 03-JUN-86		CHEMICAL RECOVERY	SEP. TIME		BASE CODE
AFB	4ABGF Brooks AFB	WATER TX 78235		SPIKE RHL NO.	VOL SPIKE ADDED		DATE REC / BY
ANA	Broad Creek Station 3 below T-88 pond	Logged by FJ		REMARKS ALPHABETA	CHEM COMP 10 Jun 86 / BY		DATE COMP / BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNIT
	G4000							
COUNTER AND EFF	8		GROSS ALPHA DIS	<1.9 ± MDA	PCI/L		±	
TIME AND TOT CTS	100/6/258		GROSS ALPHA SUS	±	PCI/L		±	
TIME AND BKG CTS	78/1014/1000		GROSS ALPHA (URINE)	±	PCI/24H		±	
NET CPM			GROSS ALPHA (SOIL)	±	PCI/GD		±	
DATE AND TIME START	10JUN86		GROSS ALPHA (VEG)	±	PCI/GA		±	
			GROSS ALPHA (AIR FILTER)	±	PCI/M^3		±	
COUNTER AND EFF			GROSS BETA DIS	10.4 ± 2.2	PCI/L		±	
TIME AND TOT CT			GROSS BETA SUS	±	PCI/L		±	
TIME AND BKG CTS			GROSS BETA (URINE)	±	PCI/24H		±	
NET CPM			NET BETA (URINE)	±	PCI/24H		±	
DATE AND TIME START			GROSS BETA (SOIL)	±	PCI/GD		±	
			GROSS BETA (VEG)	±	PCI/GA		±	
RADON	CELL NO.		GROSS BETA (AIR FILTER)	±	PCI/M^3		±	
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L		±	
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L		±	
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML		±	
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3		±	
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT				±	
NCPM	NET SAMPLE ACTIVITY		RECOVERY	±	%	COUNT COMP 12 JUN 19[illegible]	BY	

L 434

GN 86 0006 18601078
AFP PJKS, Waterton, CO Q253D
Col: 21-MAY-86 Rec: 03-JUN-86

4ABGF WATER
Brooks AFB TX 78235
Brook Qr. sh 3 Logged by PJ

B CHEMISTRY DATA	WT (DIS)	C LABORATORY IDENTIFICATION
WT OR VOL ANALYZED 600ml	WT (SUS)	RHL NO
CHEMICAL RECOVERY	SEP TIME	BASE CODE
SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC / BY
REMARKS GAMMA	CHEM COMP 6/5/86 BY L	DATE COMP / BY

D COUNTING DATA	1/3	0043199
COUNTER AND EFF		
TIME AND TOT CTS		
TIME AND BKG CTS		
NET CPM		
DATE AND TIME START		
COUNTER AND EFF		
TIME AND TOT CT		
TIME AND BKG CTS		
NET CPM		
DATE AND TIME START		
RADON	CELL NO.	
DATE COUNTED	TIME STARTED	
TOTAL TIME	UNCORRECTED SAMPLE ACT	
TOTAL COUNTS	TIME COR FACTOR	
GROSS CPM	CORRECTED SAMPLE ACT	
BKG CPM	CONTROL ROOM ACTIVITY	
NCPM	NET SAMPLE ACTIVITY	

E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
GROSS ALPHA DIS		PCI/L	U-235	<27	PCI/L
GROSS ALPHA SUS		PCI/L	K-40	<92	"
GROSS ALPHA (URINE)		PCI/24H	Cr-51	<89	"
GROSS ALPHA (SOIL)		PCI/GD	Co-60	<11	"
GROSS ALPHA (VEG)		PCI/GA	ZR-95	<21	"
GROSS ALPHA (AIR FILTER)		PCI/M³	Nb-95	<10	"
GROSS BETA DIS		PCI/L	Mo-99	<500	"
GROSS BETA SUS		PCI/L	Ru-103	<8	"
GROSS BETA (URINE)		PCI/24H	Ru-106	<46	"
NET BETA (URINE)		PCI/24H	I-131	<20	"
GROSS BETA (SOIL)		PCI/GD	Cs-134	<8	"
GROSS BETA (VEG)		PCI/GA	Cs-137	<5	"
GROSS BETA (AIR FILTER)		PCI/M³	Ba-140	<38	"
SAMPLE WT DIS		MG/L	LA-140	<17	"
SAMPLE WT SUS		MG/L			
SAMPLE VOL (URINE)		ML			
SAMPLE VOL (AIR FILTER)		M³			
SAMPLE WT					
RECOVERY		%	COUNT COMP		BY Q

L 435

RADIOLOGICAL SAMPLE DATA

5,424 6
5,755 4

A				B	CHEMISTRY DATA	WT (DIS) 169.2 mg	C	LABORATORY IDENTIFICATION
SOC	GN 86 0001 AFP PJKS, Waterton, CO	TYPE SAMPLE	18601073 Q253D		WT OR VOL ANALYZED 200ml	WT (SUS)		RHL NO.
SUB	Col: 21-MAY-86		Rec: 03-JUN-86		CHEMICAL RECOVERY	SEP. TIME		BASE CODE
AFB	4ABGP T Brooks AFB		WATER TX 78235		SPIKE RHL NO.	VOL SPIKE ADDED		DATE REC / BY
ANA	AFP PJKS MW#4		Logged by FJ		REMARKS ALPHA-BETA	CHEM COMP 16 JUN 86 BY		DATE COMP / BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
COUNTER AND EFF	G4000 3		GROSS ALPHA DIS	53.5 ± 11.7	PCI/L		±	
TIME AND TOT CTS	100/116/701		GROSS ALPHA SUS	±	PCI/L		±	
TIME AND BKG CTS	78/1014/1000		GROSS ALPHA (URINE)	±	PCI/24H		±	
NET CPM			GROSS ALPHA (SOIL)	±	PCI/GD		±	
DATE AND TIME START	10 JUN 86		GROSS ALPHA (VEG)	±	PCI/GA		±	
			GROSS ALPHA (AIR FILTER)	±	PCI/M^3		±	
COUNTER AND EFF			GROSS BETA DIS	42.8 ± 4.0	PCI/L		±	
TIME AND TOT CT			GROSS BETA SUS	±	PCI/L		±	
TIME AND BKG CTS			GROSS BETA (URINE)	±	PCI/24H		±	
NET CPM			NET BETA (URINE)	±	PCI/24H		±	
DATE AND TIME START			GROSS BETA (SOIL)	±	PCI/GD		±	
			GROSS BETA (VEG)	±	PCI/GA		±	
RADON	CELL NO.		GROSS BETA (AIR FILTER)	±	PCI/M^3		±	
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L		±	
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L		±	
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML		±	
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3		±	
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT				±	
NCPM	NET SAMPLE ACTIVITY		RECOVERY	±	%	COUNT COMP 16 JUN 1986	BY Robert F. Desse	

1436

SC F 361 CT ... DIGITAL SAMPLE DATA

A				B CHEMISTRY DATA	WT (DIS)	C LABORATORY IDENTIFICATION
SOI	GN 86 0001		18601073			
	AFP PORKS, Waterton, CO		0253D	WT OR VOL ANALYZED 600 ML	WT (SUS)	RHL NO
SUI	Col: 21-MAY-86		Rec: 03-JUN-86	CHEMICAL RECOVERY	SEP TIME	BASE CODE
AFB	4ABGF		WATER	SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC / BY
	Brooks AFB		TX 78235			
ANA	MW# 4		Logged by FJ	REMARKS -GAM	CHEM COMP 6/8/86 BY L	DATE COMP / BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
	1/9	0042194						
COUNTER AND EFF			GROSS ALPHA DIS		PCI/L	U-235	<60	pCi/L
TIME AND TOT CTS			GROSS ALPHA SUS		PCI/L	K-40	98 ± 85	"
TIME AND BKG CTS			GROSS ALPHA (URINE)		PCI/24H	Cr-51	<44	"
NET CPM			GROSS ALPHA (SOIL)		PCI/GD	Co-60	<12	"
DATE AND TIME START			GROSS ALPHA (VEG)		PCI/GA	Zr-95	<11	"
			GROSS ALPHA (AIR FILTER)		PCI/M^3	Nb-95	<8	"
COUNTER AND EFF			GROSS BETA DIS		PCI/L	Mo-99	<440	"
TIME AND TOT CT			GROSS BETA SUS		PCI/L	Ru-103	<3	"
TIME AND BKG CTS			GROSS BETA (URINE)		PCI/24H	Ru-106	<65	"
NET CPM			NET BETA (URINE)		PCI/24H	I-131	<28	"
DATE AND TIME START			GROSS BETA (SOIL)		PCI/GD	Cs-134	<3	"
			GROSS BETA (VEG)		PCI/GA	Cs-137	<9	"
RADON	CELL NO.		GROSS BETA (AIR FILTER)		PCI/M^3	Ba-140	<29	"
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L	La-140	<15	"
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L			
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML			
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3			
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT					
NCPM	NET SAMPLE ACTIVITY		RECOVERY		%	COUNT COMP 12 JUN 1986		BY A

RADIOLOGICAL SAMPLE DATA

5.6.'89
5.7.3.26

A			B		C	
SOC	GN 86 0004 AFP Poks, Waterton, Co	18601076 Q253D	CHEMISTRY DATA	WT (DIS) 1616.3mg	LABORATORY IDENTIFICATION	
	Col: 21-MAY-86	Rec: 03-JUN-86	WT OR VOL ANALYZED 200 ml	WT (SUS)	RHL NO.	
SUI			CHEMICAL RECOVERY	SEP. TIME	BASE CODE	
AFI	4ABGF Brooks AFB	WATER TX 78235	SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC	BY
AN.	AFP POKS MW #5	Logged by PJ	REMARKS ALPHA Redone	CHEM COMP 10 June 86 BY	DATE COMP	BY

D COUNTING DATA			E RESULTS	ACTIVITY + − ERROR	UNITS	NUCLIDE	ACTIVITY + − ERROR	UNITS
	G4000		GROSS ALPHA DIS	10.6 + 6.4 −	PCI/L		+ −	
COUNTER AND EFF	6		GROSS ALPHA SUS	+ −	PCI/L		+ −	
TIME AND TOT CTS	100/33/530		GROSS ALPHA (URINE)	+ −	PCI/24H		+ −	
TIME AND BKG CTS	78/1014/10012		GROSS ALPHA (SOIL)	+ −	PCI/GD		+ −	
NET CPM			GROSS ALPHA (VEG)	+ −	PCI/GA		+ −	
DATE AND TIME START	10 JUN 86		GROSS ALPHA (AIR FILTER)	+ −	PCI/M^3		+ −	
			GROSS BETA DIS	31.4 + 3.5 −	PCI/L		+ −	
COUNTER AND EFF			GROSS BETA SUS	+ −	PCI/L		+ −	
TIME AND TOT CT			GROSS BETA (URINE)	+ −	PCI/24H		+ −	
TIME AND BKG CTS			NET BETA (URINE)	+ −	PCI/24H		+ −	
NET CPM			GROSS BETA (SOIL)	+ −	PCI/GD		+ −	
DATE AND TIME START			GROSS BETA (VEG)	+ −	PCI/GA		+ −	
			GROSS BETA (AIR FILTER)	+ −	PCI/M^3		+ −	
RADON	CELL NO.		SAMPLE WT DIS		MG/L		+ −	
DATE COUNTED	TIME STARTED		SAMPLE WT SUS		MG/L		+ −	
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE VOL (URINE)		ML		+ −	
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (AIR FILTER)		M^3		+ −	
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE WT				+ −	
BKG CPM	CONTROL ROOM ACTIVITY		RECOVERY	+ −	%	COUNT COMP 12 JUN 1986	BY Robt F. [illegible]	
NCPM	NET SAMPLE ACTIVITY							

L 438

RADIOCHEMICAL DATA

A			B		C	
SOCI	GN 86 0004 AFP FOKS, Waterton, CO	18601076	CHEMISTRY DATA	WT (DIS)	LABORATORY IDENTIFICATION	
	Coll: 21-MAY-86	Q2530 Rec: 03-JUN-86	WT OR VOL ANALYZED 600 ml	WT (SUS)	RHL NO	
SUBA			CHEMICAL RECOVERY	SEP TIME	BASE CODE	
AFB	4ABGP Brooks AFB	WATER TX 78235	SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC	BY
ANAL	~~DST~~ MW #5	Logged by PJ	REMARKS GAMMA	CHEM COMP 6/5/86 BY L	DATE COMP	BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
COUNTER AND EFF	1/12	0042197	GROSS ALPHA DIS		PCI/L	U-234	233	PCI/L
TIME AND TOT CTS			GROSS ALPHA SUS		PCI/L	K-40	299	"
TIME AND BKG CTS			GROSS ALPHA (URINE)		PCI/24H	Cr-51	<39	"
NET CPM			GROSS ALPHA (SOIL)		PCI/GD	Co-60	<11	"
DATE AND TIME START			GROSS ALPHA (VEG)		PCI/GA	Zr-95	<16	"
			GROSS ALPHA (AIR FILTER)		PCI/M^3	Nb-95	<9	"
COUNTER AND EFF			GROSS BETA DIS		PCI/L	Mo-99	<520	"
TIME AND TOT CT			GROSS BETA SUS		PCI/L	Ru-103	<8	"
TIME AND BKG CTS			GROSS BETA (URINE)		PCI/24H	Ru-106	<12	"
NET CPM			NET BETA (URINE)		PCI/24H	I-131	<27	"
DATE AND TIME START			GROSS BETA (SOIL)		PCI/GD	Cs-134	<8	"
			GROSS BETA (VEG)		PCI/GA	Cs-137	<6	"
RADON	CELL NO.		GROSS BETA (AIR FILTER)		PCI/M^3	Ba-140	<75	"
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L	La-140	36 ± 18	"
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L			
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML			
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3			
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT					
NCPM	NET SAMPLE ACTIVITY		RECOVERY		%	COUNT COMP 10 JUN 1986		BY

L 439

AFSC Form 3515, OCT 85

RADIOLOGICAL SAMPLE

5.7674

GN 86 0002 | TYPE SAMPLE: 18601074
AFP POKS, Waterton, CO | 0253D
Col: 21-MAY-86 | Rec: 03-JUN-86
4ABGF | WATER
Brooks AFB | TX 78235
AFP POKS MW#6 | Logged by PJ (water level clear & cranky)

B CHEMISTRY DATA		WT (DIS) 153.20mg	C LABORATORY IDENTIFICATION
WT OR VOL ANALYZED	200ml	WT (SUS)	RHL NO.
CHEMICAL RECOVERY		SEP. TIME	BASE CODE
SPIKE RHL NO.	VOL SPIKE ADDED		DATE REC / BY
REMARKS ALPHA		CHEM COMP 10 JUN 86 BY	DATE COMP / BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
	G4000							
COUNTER AND EFF	4		GROSS ALPHA DIS	<4.5 ± MDA	PCI/L			
TIME AND TOT CTS	100/17/508		GROSS ALPHA SUS		PCI/L			
TIME AND BKG CTS	78/1014/1000		GROSS ALPHA (URINE)		PCI/24H			
NET CPM			GROSS ALPHA (SOIL)		PCI/GD			
DATE AND TIME START	10JUN86		GROSS ALPHA (VEG)		PCI/GA			
			GROSS ALPHA (AIR FILTER)		PCI/M^3			
COUNTER AND EFF			GROSS BETA DIS	29.6 ± 3.3	PCI/L			
TIME AND TOT CT			GROSS BETA SUS		PCI/L			
TIME AND BKG CTS			GROSS BETA (URINE)		PCI/24H			
NET CPM			NET BETA (URINE)		PCI/24H			
DATE AND TIME START			GROSS BETA (SOIL)		PCI/GD			
			GROSS BETA (VEG)		PCI/GA			
RADON	CELL NO.		GROSS BETA (AIR FILTER)		PCI/M^3			
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L			
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L			
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML			
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3			
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT					
NCPM	NET SAMPLE ACTIVITY		RECOVERY		%	COUNT COMP 12 JUN 1986	BY	

L 440

A				B CHEMISTRY DATA	WT (DIS)	C LABORATORY IDENTIFICATION
SOCI	GN 86 0002 ATP POKS, Waterton, Co		18601074 Q253D	WT OR VOL ANALYZED 600ml	WT (SUS)	RHL NO
SUBA	Col: 21-MAY-86		Rec: 03-JUN-86	CHEMICAL RECOVERY	SEP TIME	BASE CODE
AFB	4ABGP Brooks AFB		WATER TX 78235	SPIKE RHL NO.	VOL SPIKE ADDED	DATE REC / BY
ANAL	MW # 6		Logged by FJ	REMARKS GAMMA	CHEM COMP 6/5/86 BY L	DATE COMP / BY

D COUNTING DATA			E RESULTS	ACTIVITY ± ERROR	UNITS	NUCLIDE	ACTIVITY ± ERROR	UNITS
	1/10	6042195						
COUNTER AND EFF			GROSS ALPHA DIS		PCI/L	U-235	<26	pCi/L
TIME AND TOT CTS			GROSS ALPHA SUS		PCI/L	K-40	<95	"
TIME AND BKG CTS			GROSS ALPHA (URINE)		PCI/24H	Cr-51	<40	"
NET CPM			GROSS ALPHA (SOIL)		PCI/GD	Co-60	<11	"
DATE AND TIME START			GROSS ALPHA (VEG)		PCI/GA	Zr-95	<7	"
			GROSS ALPHA (AIR FILTER)		PCI/M^3	Nb-95	<7	"
COUNTER AND EFF			GROSS BETA DIS		PCI/L	Mo-99	<510	"
TIME AND TOT CT			GROSS BETA SUS		PCI/L	Ru-103	<7	"
TIME AND BKG CTS			GROSS BETA (URINE)		PCI/24H	Ru-106	<54	"
NET CPM			NET BETA (URINE)		PCI/24H	I-131	<24	"
DATE AND TIME START			GROSS BETA (SOIL)		PCI/GD	Cs-134	<9	"
			GROSS BETA (VEG)		PCI/GA	Cs-137	<5	"
RADON	CELL NO.		GROSS BETA (AIR FILTER)		PCI/M^3	Ba-140	<66	"
DATE COUNTED	TIME STARTED		SAMPLE WT DIS		MG/L	La-140	<16	"
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L			
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL (URINE)		ML			
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL (AIR FILTER)		M^3			
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE WT					
NCPM	NET SAMPLE ACTIVITY		RECOVERY		%	COUNT COMP 18 JUN 1986		BY R

L 441

AFSC Form 2515, OCT 85 — RADIOLOGICAL SAMPLE DATA

21-AUG-86	0253D	SAMPLE ANALYSIS RESULTS
USAF OEHL/RZ BROOKS AFB TX 78235-5000		USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY(AFSC) BROOKS AFB,TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
CN 86 0001	WATER	03-JUN-86	18601073

GROSS ALPHA	53.5	+/- 11.7	PICOCURIES PER LITER
GROSS BETA	42.8	+/- 4.0	PICOCURIES PER LITER
BARIUM 140	<29		PICOCURIES PER LITER
COBALT 60	<12		PICOCURIES PER LITER
CHROMIUM 51	<44		PICOCURIES PER LITER
CESIUM 134	<3		PICOCURIES PER LITER
CESIUM 137	<9		PICOCURIES PER LITER
IODINE 131	<28		PICOCURIES PER LITER
POTASSIUM 40	98	+/- 85	PICOCURIES PER LITER
LANTHANUM 140	<15		PICOCURIES PER LITER
MOLYBDENUM 99	<440		PICOCURIES PER LITER
NIOBIUM 95	<8		PICOCURIES PER LITER
RUTHENIUM 103	<3		PICOCURIES PER LITER
RUTHENIUM 106	<65		PICOCURIES PER LITER
URANIUM 235	<60		PICOCURIES PER LITER
ZIRCONIUM 95	<11		PICOCURIES PER LITER
THORIUM 228	0.31	+/- 0.07	PICOCURIES PER LITER

CONTINUED

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
CN 86 0001	WATER	03-JUN-86	18601073

THORIUM 232	0.16	+/- 0.05	PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

CLARK P. HARPER, MAJOR, USAF, BSC CHIEF, RADIOANALYTICAL SERVICES BR.	DATE COMPLETED 15-AUG-86

21-AUG-86 G253D

SAMPLE ANALYSIS RESULTS

USAF OEHL/RZ
BROOKS AFB TX 78235-5000

USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY(AFSC)
BROOKS AFB,TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GM 86 0002	WATER	03-JUN-86	1860104

GROSS ALPHA	<4.5		PICOCURIES PER LITER
GROSS BETA	29.6	+/- 3.3	PICOCURIES PER LITER
BARIUM 140	<66		PICOCURIES PER LITER
COBALT 60	<11		PICOCURIES PER LITER
CHROMIUM 51	<40		PICOCURIES PER LITER
CESIUM 134	<9		PICOCURIES PER LITER
CESIUM 137	<5		PICOCURIES PER LITER
IODINE 131	<24		PICOCURIES PER LITER
POTASSIUM 40	<95		PICOCURIES PER LITER
LANTHANUM 140	<16		PICOCURIES PER LITER
MOLYBDENUM 99	<510		PICOCURIES PER LITER
NIOBIUM 95	<7		PICOCURIES PER LITER
RUTHENIUM 103	<7		PICOCURIES PER LITER
RUTHENIUM 106	<54		PICOCURIES PER LITER
URANIUM 235	<26		PICOCURIES PER LITER
ZIRCONIUM 95	<7		PICOCURIES PER LITER
THORIUM 228	0.21	+/- 0.09	PICOCURIES PER LITER

CONTINUED

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GM 86 0002	WATER	03-JUN-86	1860104

THORIUM 232	0.16	+/- 0.06	PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

EDWARD F. MAHER, MAJOR, USAF, BSC
CHIEF, RADIOANALYTICAL SERVICES BR.
AUTOVON 240-2061

DATE COMPLETED 15-AUG-86

21-AUG-86 Q253D	SAMPLE ANALYSIS RESULTS
USAF OEHL/RZ BROOKS AFB TX 78235-5000	USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY(AFSC) BROOKS AFB,TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0003	WATER	03-JUN-86	1860105

GROSS ALPHA	<1.8		PICOCURIES PER LITER
GROSS BETA	41.9	+/- 3.6	PICOCURIES PER LITER
BARIUM 140	<12		PICOCURIES PER LITER
COBALT 60	<11		PICOCURIES PER LITER
CHROMIUM 51	<96		PICOCURIES PER LITER
CESIUM 134	<9		PICOCURIES PER LITER
CESIUM 137	<7		PICOCURIES PER LITER
IODINE 131	<30		PICOCURIES PER LITER
POTASSIUM 40	<83		PICOCURIES PER LITER
LANTHANUM 140	20	+/- 1/	PICOCURIES PER LITER
MOLYBDENUM 99	<450		PICOCURIES PER LITER
NIOBIUM 95	<8		PICOCURIES PER LITER
RUTHENIUM 103	<9		PICOCURIES PER LITER
RUTHENIUM 106	<47		PICOCURIES PER LITER
URANIUM 235	<46		PICOCURIES PER LITER
ZIRCONIUM 95	<15		PICOCURIES PER LITER
THORIUM 228	0.12	+/- 0.1	PICOCURIES PER LITER

CONTINUED

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0003	WATER	03-JUN-86	1860105

THORIUM 232	0.13	+/- 0.09	PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

EDWARD J. MAHER, MAJOR, USAF, BSC
CHIEF, RADIOANALYTICAL SERVICES BR.
AUTOVON 240-2011

DATE COMPLETED 15-AUG-86

21-AUG-86	Q2530	SAMPLE ANALYSIS RESULTS
USAF OEHL/RZ BROOKS AFB TX 78235-5000		USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY(AFSC) BROOKS AFB,TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0004	WATER	03-JUN-86	18601076

GROSS ALPHA	10.6	+/- 6.4	PICOCURIES PER LITER
GROSS BETA	31.4	+/- 3.5	PICOCURIES PER LITER
BARIUM 140	<75		PICOCURIES PER LITER
COBALT 60	<11		PICOCURIES PER LITER
CHROMIUM 51	<39		PICOCURIES PER LITER
CESIUM 134	<8		PICOCURIES PER LITER
CESIUM 137	<6		PICOCURIES PER LITER
IODINE 131	<27		PICOCURIES PER LITER
POTASSIUM 40	<99		PICOCURIES PER LITER
LANTHANUM 140	66	+/- 18	PICOCURIES PER LITER
MOLYBDENUM 99	<520		PICOCURIES PER LITER
NIOBIUM 95	<9		PICOCURIES PER LITER
RUTHENIUM 103	<8		PICOCURIES PER LITER
RUTHENIUM 106	<12		PICOCURIES PER LITER
URANIUM 235	<33		PICOCURIES PER LITER
ZIRCONIUM 95	<16		PICOCURIES PER LITER
THORIUM 228	0.38	+/- 0.08	PICOCURIES PER LITER

-----CONTINUED-----

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0004	WATER	03-JUN-86	18601076

THORIUM 232	0.24	+/- 0.06	PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

EDWARD F. MAHER, MAJOR, USAF, BSC
CHIEF, RADIOANALYTICAL SERVICES BR,
AUTOVON 240-2061

DATE COMPLETED 15-AUG-86

21-AUG-86	Q253D	SAMPLE ANALYSIS RESULTS

USAF OEHL/RZ
BROOKS AFB TX 78235-5000

USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY(AFSC)
BROOKS AFB,TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0005	WATER	03-JUN-86	186010/7

GROSS ALPHA	<1.9		PICOCURIES PER LITER
GROSS BETA	17.0	+/- 2.5	PICOCURIES PER LITER
BARIUM 140	<47		PICOCURIES PER LITER
COBALT 60	<12		PICOCURIES PER LITER
CHROMIUM 51	<62		PICOCURIES PER LITER
CESIUM 134	<7		PICOCURIES PER LITER
CESIUM 137	<4		PICOCURIES PER LITER
IODINE 131	<28		PICOCURIES PER LITER
POTASSIUM 40	<92		PICOCURIES PER LITER
LANTHANUM 140	<16		PICOCURIES PER LITER
MOLYBDENUM 99	<560		PICOCURIES PER LITER
NIOBIUM 95	<12		PICOCURIES PER LITER
RUTHENIUM 103	<4		PICOCURIES PER LITER
RUTHENIUM 106	<55		PICOCURIES PER LITER
URANIUM 235	<43		PICOCURIES PER LITER
ZIRCONIUM 95	<16		PICOCURIES PER LITER
THORIUM 228	0.07	+/- 0.03	PICOCURIES PER LITER

CONTINUED

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0005	WATER	03-JUN-86	186010/7

THORIUM 232	0.06	+/- 0.02	PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

EDWARD F. MAHER, MAJOR, USAF, BSC
CHIEF, RADIOANALYTICAL SERVICES BR.

DATE COMPLETED 15-AUG-86

21-AUG-86 Q2530

SAMPLE ANALYSIS RESULTS

USAF OEHL/RZ
BROOKS AFB TX 78235-5000

USAF OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY(AFSC)
BROOKS AFB,TEXAS 78235-5501

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0006	WATER	03-JUN-86	18601076

GROSS ALPHA	<1.9		PICOCURIES PER LITER
GROSS BETA	10.4	+/- 2.2	PICOCURIES PER LITER
BARIUM 140	<38		PICOCURIES PER LITER
COBALT 60	<11		PICOCURIES PER LITER
CHROMIUM 51	<89		PICOCURIES PER LITER
CESIUM 134	<8		PICOCURIES PER LITER
CESIUM 137	<5		PICOCURIES PER LITER
IODINE 131	<20		PICOCURIES PER LITER
POTASSIUM 40	<92		PICOCURIES PER LITER
LANTHANUM 140	<17		PICOCURIES PER LITER
MOLYBDENUM 99	<500		PICOCURIES PER LITER
NIOBIUM 95	<10		PICOCURIES PER LITER
RUTHENIUM 103	<8		PICOCURIES PER LITER
RUTHENIUM 106	<46		PICOCURIES PER LITER
URANIUM 235	<27		PICOCURIES PER LITER
ZIRCONIUM 95	<21		PICOCURIES PER LITER
THORIUM 228	0.08	+/- 0.04	PICOCURIES PER LITER

CONTINUED

IDENTIFICATION	TYPE OF SAMPLE	DATE RECEIVED	OEHL NUMBER
GN 86 0006	WATER	03-JUN-86	18601076

THORIUM 232	0.05	+/- 0.03	PICOCURIES PER LITER

RESULTS ARE DECAY CORRECTED

EDWARD F. MAHER, MAJOR, USAF, BSC
CHIEF, RADIOANALYTICAL SERVICES BR.
AUTOVON 240-2061

DATE COMPLETED 15-AUG-86

APPENDIX M

RESPONSES TO REGULATORY COMMENTS

AFP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES

U.S. Environmental Protection Agency
(Ref. 8HWM-SR; letter dated 19 August 1986)

Comments	Response
1. Detection limits. The detection limits for some critical chemical analyses were very high. We believe that this is a serious weakness in this investigation and severely limits the usefulness of the results. The detection limit for hydrazine in water, for instance, was 1 part per million (ppm) and for TCE in soils, 2 ppm. These high detection limits probably explain why there were no positive results for these two contaminants in those media.	1. Detection limits. Detection limits are determined by the specific method of analysis and represent limits that can be reached by a laboratory. We agree that the limit for hydrazine (1 ppm) and TCE (2 ppm) may be a little high. However, matrix effects normally raise the limits of detection. An EPA method for analysis of hydrazine does not exist. Therefore, a NIOSH method was modified for this analysis. Theoretically, a detection limit of 0.1 mg/L (ppm) can be achieved. Ultimately, the analytical laboratory must determine the detection limit. If you have an approved method for analyzing hydrazine which has a lower detection limit, we would greatly appreciate a reference to it. However, even with a lower detection limit, we would doubt hydrazine could be detected due to the lability of the compound. EPA Method (8010) specifies a sensitivity of 1 mg/kg (ppm) to be achieved. By back calculating from the detection limit for TCE in water samples, we can get a theoretical detection limit of 0.06 mg/kg for TCE in soil samples. This represents a detection of 0.0006 ug of TCE by the GC, using the protocols specified by EPA Method 3050/8010. We do not know if a detection limit below 1 mg/kg can be achieved. In the next stage of investigation we can specify a detection limit of at least 0.1 mg/kg. However, the laboratory will have to determine the achievable detection limits based on the soil matrix of the samples.

AFP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES (Continued)

U.S. Environmental Protection Agency
(Ref. 8HWM-SR; letter dated 19 August 1986) (Continued)

Comments	Response
2. Analytical Techniques. Although the dual column gas chromatograph (GC) can provide good analytical results, EPA prefers techniques that use both the gas chromatograph and mass spectrometer (GC/MS). We believe that the GC/MS provides better identification of chemical constituents and GC/MS methods are used by EPA contract laboratories for hazardous materials analysis.	2. Analytical Techniques. We agree that GC/MS is more desirable for positive identification of compounds. However, the detection limits for GC/MS analyses are about 10 times higher than for GC with second column confirmation. For example, the method for EPA Contract Laboratory Program (CLP) specifies detection limits for 5 to 10 ug/L for many volatile organic compounds. We are concerned with the proposed drinking water standards. The proposed Maximum Contaminant Level (MCL) for TCE is 5 ug/L. The CLP method has a detection limit of 5 ug/L which is at the MCL. Worst, the proposed MCL for vinyl chloride is 1 ug/L and the detection limit with GC/MS is 5 ug/L. If GC/MS method is agreeable to all parties, we will use this type of method. If not, we would still like to use GC/MS to analyze all future water samples from past sites with high amounts of organic compound contamination (at least above detection limit of GC/MS) and where previous water samples were analyzed by GC with second column confirmation. This would allow us to eliminate any doubts of the identity of the compounds. In addition, we would like to use GC/MS for all soil samples since there are no standards for soil samples other than EP Toxicity.

AFP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES (Continued)

U.S. Environmental Protection Agency
(Ref. 8HWM-SR; letter dated 19 August 1986) (Continued)

Comments	Response
3. Interpretation of Soil Data. The use of the EPA publication, "Hazardous Waste Land treatment," is inappropriate for evaluating the soil sample results at PJKS. That publication includes recommendations for managing hazardous waste treatment facilities and the guidelines for contaminant accumulation in soils are not meant to evaluate ambient conditions.	3. Interpretation of Soil Data. We are not aware of any standards for soils except for EP Toxicity. If available, please provide appropriate publications or references to publications that we can use for evaluating our results. We are planning to analyze and use background samples for comparison in the next stage of investigation.
4. Conclusions and Recommendations. We generally agree with the conclusions and recommendations listed in Sections 5 and 6 of the Report. The ground water contamination that has been identified should be examined more thoroughly and the sources should be located. The resampling discussed on page 6-3 is a good idea as long as the detection limits are lowered to provide more useful data. We would like to work with the Air Force in developing the work plan for the tasks suggested in Section 6.	4. Conclusions and Recommendations. We would like the EPA and Colorado Department of Health to review the draft IRP II-2 Statement of Work. Comments from these agencies will be incorporated into the final Statement of Work.

AFP PJKS DRAFT PHASE II REPORT COMMENTS
FROM REGULATORY AGENCIES (Continued)

Colorado Department of Health
(Comments by G. Starkebaum, 22 August 1986,
Telephone Memo)

Comments	Response
1. Concrete Pond (T8-A). Colorado Department of Health still considers this pond as a RCRA impoundment subject to RCRA closure. Closure process has to be worked out by the State through the review of Martin-Marietta's (M-M) Part B permit application. The State does not consider this issue a serious one.	1. Concrete Pond (T8-A). None.
2. Samples Proposed for soil and water EPL Rinse Water Tanks (Located right below T-6033 tanks). The State took a sample on 15 March 1985 in this area which indicated a prominent presence of heavy metals as follows: a. Sample was taken from a pipe discharging on the ground. This pipe has since been plugged by M-M. This area was made part of the Consent Order which required M-M to include this area in the Closure Plan. This issue needs to be coordinated by M-M between its RCRA and IRP activities: 2a(1) - Arsenic found at 1.2 ppm (total digestion of 1-gram sample dissolved in nitric acid) 2a(2) - barium found at 21 ppm 2a(3) - Total chromium found at 5.1 ppm 2a(4) - lead found at 13 ppm 2a(5) - mercury found in 0.2 ppm.	2. Samples Proposed for soil and water EPL Rinse Water Tanks (Located right below T6033 tanks). None.
3. Draft Report is considered a good one by the State.	3. None.