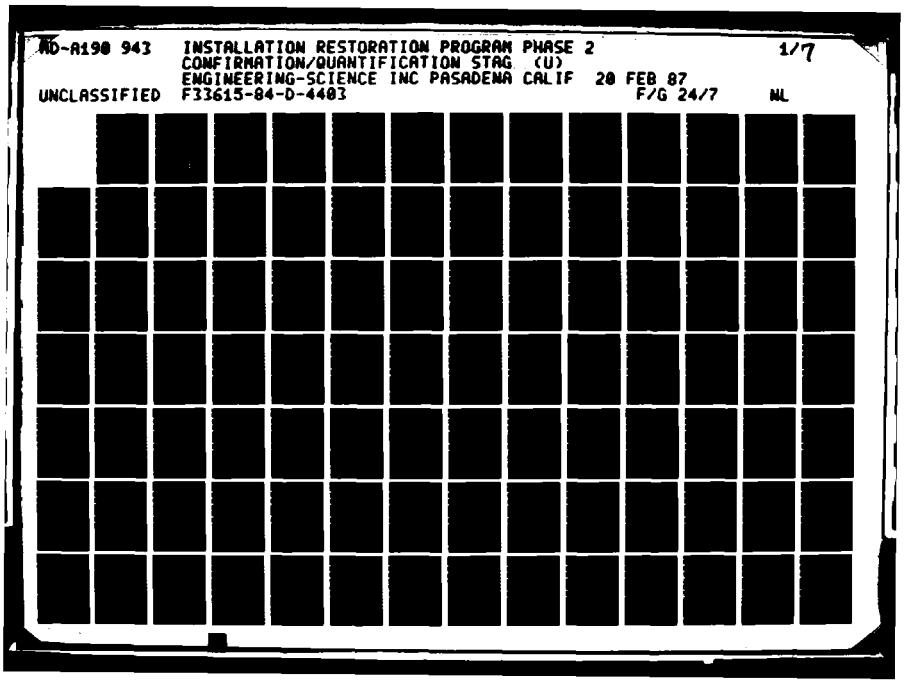
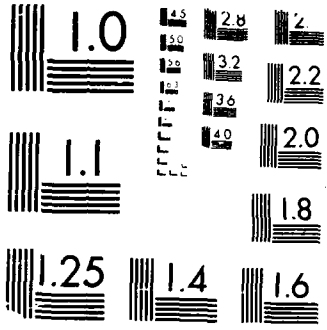

AD-A190 943 INSTALLATION RESTORATION PROGRAM PHASE 2 1/7
CONFIRMATION/QUANTIFICATION STAG (U)
ENGINEERING-SCIENCE INC PASADENA CALIF 20 FEB 87
UNCLASSIFIED F33615-84-D-4403 F/G 24/7 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

DTIC FILE COPY

(4)

INSTALLATION RESTORATION PROGRAM PHASE II - CONFIRMATION/QUANTIFICATION STAGE 1

VOLUME II

U.S. AIR FORCE PLANT NO. 42 Palmdale, California

PREPARED FOR

HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION
FACILITIES MANAGEMENT DIVISION (ASD/PMDA)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6503

AND

HEADQUARTERS AIR FORCE SYSTEMS COMMAND
COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB)
ANDREWS AIR FORCE BASE, DIST. OF COLUMBIA 20334-5000

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

AD-A190 943

APPROVED FOR PUBLIC RELEASE - DISTRIBUTION IS UNLIMITED

DTIC
ELECTE
MAR 2 4 1988
S D
D

FEBRUARY 1987

FINAL REPORT

PREPARED BY

ENGINEERING-SCIENCE, INC.
Pasadena, California 91103
Atlanta, Georgia 30329

ENGINEERING-SCIENCE

88 3 22 025

NOTICE

This report has been prepared for the United States Air Force by Engineering-Science, Inc. for the purpose of aiding in the implementation of the Air Force Installation Restoration Program. It is not an endorsement of any product. The views expressed herein are those of the contractor and do not necessarily reflect the official views of the publishing agency, the United States Air Force, or the Department of Defense.

Copies of this report may be purchased from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

Federal government agencies and their contractors registered with the Defense Technical Information Center should direct requests for copies of this report to:

Defense Technical Information Center
Cameron Station
Alexandria, VA 22314

INSTALLATION RESTORATION PROGRAM
PHASE II - CONFIRMATION/QUANTIFICATION
STAGE 1

VOLUME II

Final Report
For

U.S. AIR FORCE PLANT NO. 42
Palmdale, California

Prepared For

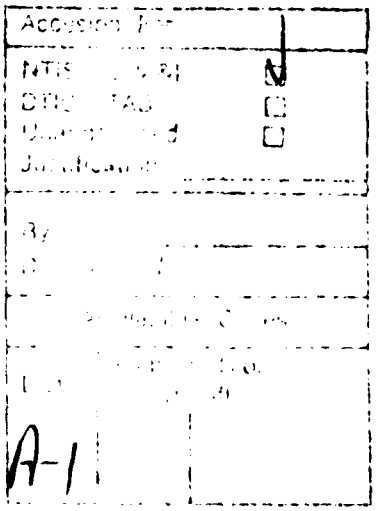
HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION
FACILITIES MANAGEMENT DIVISION (ASD/PMDA)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6503

and

HEADQUARTERS AIR FORCE SYSTENS COMMAND
COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB)
ANDREWS AIR FORCE BASE, DIST. OF COLUMBIA 20334-5000

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

February 1987



Prepared By

ENGINEERING-SCIENCE, INC.
75 North Fair Oaks Avenue
Pasadena, California 91103

and

57 Executive Park South, Suite 590
Atlanta, Georgia 30329

USAF CONTRACT NO. F33615-84-D-4403
DELIVERY ORDER NO. 001102

USAFOEHL TECHNICAL PROGRAM MANAGER
John K. Yu, Ph.D.

NOTICE

This report has been prepared for the United States Air Force by Engineering-Science, Inc. for the purpose of aiding in the implementation of the Air Force Installation Restoration Program. It is not an endorsement of any product. The views expressed herein are those of the contractor and do not necessarily reflect the official views of the publishing agency, the United States Air Force, or the Department of Defense.

Copies of this report may be purchased from:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

Federal government agencies and their contractors registered with the Defense Technical Information Center should direct requests for copies of this report to:

Defense Technical Information Center
Cameron Station
Alexandria, VA 22314

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE

AD-A190 943

REPORT DOCUMENTATION PAGE

1a REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b RESTRICTIVE MARKINGS N/A
2a SECURITY CLASSIFICATION AUTHORITY N/A	3 DISTRIBUTION / AVAILABILITY OF REPORT APPROVED FOR PUBLIC RELEASE: DISTRIBUTION IS UNLIMITED
2b DECLASSIFICATION / DOWNGRADING SCHEDULE N/A	
4 PERFORMING ORGANIZATION REPORT NUMBER(S) N/A	5 MONITORING ORGANIZATION REPORT NUMBER(S) N/A
6a NAME OF PERFORMING ORGANIZATION ENGINEERING-SCIENCE, INC. 6b OFFICE SYMBOL (If applicable)	7a NAME OF MONITORING ORGANIZATION USAFOEHL/TSS
6c ADDRESS (City, State, and ZIP Code) 73 NORTH FAIR OAKS AVENUE PASADENA, CALIFORNIA 91103	7b ADDRESS (City, State, and ZIP Code) BROOKS AFB, TEXAS 78235-5501
8a NAME OF FUNDING / SPONSORING ORGANIZATION USAFOEHL/TSS 8b OFFICE SYMBOL (If applicable)	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER CONTRACT NUMBER: F33615-84-D-4403 DELIVERY ORDER: 0011 03
8c ADDRESS (City, State, and ZIP Code) BROOKS AFB, TEXAS 78235-5501	10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO / TASK NO / WORK UNIT ACCESSION NO

11 TITLE (Include Security Classification)
IRP PHASE II - CONFIRMATION QUANTIFICATION, STAGE 1 FOR USAF PLANT 42, PALMDALE, CALIFORNIA

12 PERSONAL AUTHOR(S)
ENGINEERING-SCIENCE, INC.

13a TYPE OF REPORT	13b TIME COVERED	14 DATE OF REPORT (Year, Month, Day)	15 PAGE COUNT
Final	FROM 9/85 TO 2/87	1987 February 20	650

16 SUPPLEMENTARY NOTATION

17 COSATI CODES			18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	IRP, PHASE II, USAF PLANT 42, PALMDALE, CERCLA, HAZARDOUS WASTE, CONTAMINATION, HYDROGEOLOGY, MONITORING.

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

An Installation Restoration Program (IRP) Phase II, Stage 1 investigation was conducted at USAF Plant 42 in Palmdale, California, to confirm the presence or absence of contamination at 23 sites. Contamination was suspected at the sites as a result of past spills, leaks, or waste disposal practices. A field investigation program was conducted, consisting of soil boring and sampling, groundwater sampling, and chemical analysis of environmental samples (water and soils) for suspected contaminants. No significant contaminants were found at 17 of the sites. Fuel contamination (petroleum hydrocarbons or oil & grease) was detected at 5 sites, 3 of which also had volatile organics present. At 1 other site, no contamination was found, but other evidence suggested that contaminants might be present. No contamination was found in any groundwater samples; all contaminants detected were in the unsaturated zone. No further action was recommended for 17 sites where contamination was not found. Additional (IRP Phase II, Stage 2) investigations were recommended for 4 sites where the extent of contamination was not fully determined. Remedial action was recommended for 2 sites because of the location and amount of contaminants detected.

20 DISTRIBUTION / AVAILABILITY OF ABSTRACT	21 ABSTRACT SECURITY CLASSIFICATION
☐ UNCLASSIFIED/UNLIMITED ☒ SAME AS RPT ☐ DTIC USERS	UNCLASSIFIED
22a NAME OF RESPONSIBLE INDIVIDUAL J. K. YU, Ph.D.	22b TELEPHONE (Include Area Code) (512) 536-2158
	22c OFFICE SYMBOL USAFOEHL/TSS

DD FORM 1473, 84 MAR — 83 APR edition may be used until exhausted. All other editions are obsolete.

SECURITY CLASSIFICATION OF THIS PAGE
UNCLASSIFIED

ABBREVIATED TABLE OF CONTENTS

VOLUME I

EXECUTIVE SUMMARY

SECTION 1 - INTRODUCTION

SECTION 2 - ENVIRONMENTAL SETTING

SECTION 3 - FIELD INVESTIGATION PROGRAM

SECTION 4 - DISCUSSION OF RESULTS AND SIGNIFICANCE OF FINDINGS

SECTION 5 - ALTERNATIVE MEASURES

SECTION 6 - RECOMMENDATIONS

APPENDIX A - REFERENCES

APPENDIX B - GLOSSARY OF TERMINOLOGY AND ABBREVIATIONS

APPENDIX C - PROJECT TEAM BIOGRAPHICAL DATA

APPENDIX D - STATEMENT OF WORK

APPENDIX E - DATA ON WELLS IN THE VICINITY OF USAF PLANT 42

APPENDIX F - SELECTED RESULTS FROM PREVIOUS INVESTIGATIONS

APPENDIX G - DRILLING LOGS

APPENDIX H - CHAIN OF CUSTODY FORMS

APPENDIX I - ANALYTICAL QA/QC DATA

VOLUME II

APPENDIX J - ANALYTICAL DATA REPORTS

ANALYTICAL SERVICES

June 19, 1986

Engineering Science
57 Executive Park South
N.E. Suite 590
Atlanta, GA 30329

Attn: Mark Guthrie

Quality assurance shall include at least the following parameters for the Metals Lab:

The calibration blank is prepared by diluting 2mL of (1+1) nitric acid and 10 mL of (1+1) HCl to 100mL with deionized, distilled water. Prepare a sufficient quantity to be used to flush the system between standards and samples.

The instrument check standard is prepared by the analyst by combining compatible elements at a concentration equivalent to the midpoint of their respective calibration curves.

At least once daily, the reagent blank must contain all the reagents and in the same volumes as used in the processing of the samples. The reagent blank must be carried through the complete procedure and contain the same acid concentration in the final solution as the sample solution used for analysis.

The quality control sample should be prepared in the same acid matrix as the calibration standards at a concentration near 1 mg/L and in accordance with the instructions provided by the supplier.

The lab analyzes an appropriate instrument check standard containing the elements of interest at a frequency of 10%. This check standard is used to determine instrument drift.

The calibration blank is run at a frequency of 10%. The result should be within the established control limits of two standard deviations of the three results. If the average is not within the control limit, terminate the analysis, correct the problem and recalibrate the instrument.

A quality control spike and duplicate spike is run on every job for Engineering Science. A known concentration of a specific parameter is added to an aliquot of sample. The spikes and duplicate spike recoveries measure the lab's ongoing accuracy.

A quality control sample from an outside source must first be used for the initial certification of the calibration standards. A fresh dilution of this sample shall be analyzed every week thereafter to monitor their stability. If the results are not within ±5% of the true value listed for the control sample, prepare a new calibration standard and recalibrate the instrument. If this does not correct the problem, prepare a new stock standard and a new calibration standard and repeat the calibration.

The ICAP runs (ERA) Environmental Resource Associates calibration standards as a daily routine. The ERA certified standards encompasses up to 1,000 ppb's and up to 10,000 ppb's for some metals. Percent recovery is calculated daily with these standards. The percent recovery is formulated to adjust analytical results and therefore yield more precise results.

The (APG) Analytical Products Group, Inc. has recently developed a P.E.T. program (Proficiency Environmental Testing). The Metals Lab will be receiving (starting 7-1-86) blind P.E. samples for analysis. These outside services will strengthen what is already good laboratory practices by confirming externally:

1) True values
2) Actual means (our lab and other participating labs)
3) Standard Deviations of participating labs
4) Average percent recovery
5) Our lab's deviation from the mean.

INTERNATIONAL TECHNOLOGY

Guy Sylvester
QA/QC Coordinator

ANALYTICAL SERVICES

June 24, 1986

Engineering Science
57 Executive Park South, N.E.
Suite 590
Atlanta, GA 30329

Attn: Mark Guthrie

Re: ES Purchase Order 56394

Dear Mr. Guthrie:

A number of samples which were analyzed by SW 8010 Method under your P.O. #56394 show substantial concentrations of dichloromethane. At the time these samples were being analyzed, other work being done in the laboratory involved the use of dichloromethane. We believe the dichloromethane concentrations reported for these samples represent laboratory air contamination and should not be considered as being part of the samples. Laboratory procedures have been changed to minimize dichloromethane contamination in the future. The affected samples are listed below.

ITAS Job Number	ES Sample Number
35374	2-PWD2-SB2-SS2-2.5-ITC
	2-PWD2-SB2-SS5-10-ITC
	2-PWD2-SB2-SS10-30-ITC
	2-PWD2-SB2-SS14-50-ITC
	2-PWD2-SB3-SS2-2.5-ITC
	2-PWD2-SB3-SS5-10-ITC
	2-PWD2-SB3-SS10-30-ITC
	2-PWD2-SB3-SS14-50-ITC
35401	18-ADA2-SB1-SS5-10-ITC
	18-ADA2-SB1-SS8-20-ITC
	2-PWD2-SB5-SS5-10-ITC
	2-PWD2-SB5-SS10-30-ITC
	2-PWD2-SB5-SS14-50-ITC

ITAS Job Number	ES Sample Number
35288	4-VWT5-SB1-SS3-5-ITC
	4-VWT5-SB1-SS5-10-ITC
	4-VWT5-SB1-SS10-30-ITC
	4-VWT5-SB1-SS14-50-ITC
35303	4-VWT5-SB2-SS14-50-ITC
	4-VWT5-SB2-SS10-30-ITC
	4-VWT5-SB2-SS5-10-ITC
35393	2-PWD2-SB4-SS2-2.5-ITC
	2-PWD2-SB4-SS5-10-ITC
	2-PWD2-SB4-SS10-30-ITC
	2-PWD2-SB4-SS14-50-ITC
35812	5-AFTC-SB2-SS5-10-ITC
	5-AFTC-SB2-SS10-30-ITC
	5-AFTC-SB2-SS14-50-ITC
35328	6-OFTC-SB1-SS2-2.5-ITC
	6-OFTC-SB1-SS5-10-ITC
	6-OFTC-SB1-SS10-30-ITC
	6-OFTC-SB1-SS14-50-ITC
	7-ERA2-SB1-SS5-10-ITC
	7-ERA2-SB1-SS10-30-ITC
	7-ERA2-SB1-SS14-50-ITC

Please call if you have any questions concerning this matter.

INTERNATIONAL TECHNOLOGY

Jolene Cooper

Jolene Cooper
Assistant Q/A Coordinator

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

17605 Fabrica Wa. • Cerritos, California 90701 • 213-921-9531 714-523-9200

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

Date: September 29, 1986

Attn: Dennis R. Kasper

January 7, 1985 | 56394 | 35250/lac

REVISED REPORT

Seven (7) soil samples.

Sample	Date	Time
17-NFTC-SB1-SS10-30-ITC	12-05-85	1500
17-NFTC-SB1-SS5-10-ITC	12-05-85	1500
17-NFTC-SB1-S15-10-ITC	12-05-85	1500
22-ERAT-SB2-SS4-10-ITC	12-05-85	1300
22-ERAT-SB1-SS4-10-ITC	12-05-85	0900
17-NFTC-SB2-SS2-2.5-ITC	12-06-85	0900
5-AFTC-SB1-SS2-2.5-ITC	12-06-85	1200

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to EPA Method 3550 and then analyzed for total recoverable oil and grease by EPA Method 413.2. The results are listed on the following page.

Data for Quality Control Report 8020-5 can be found in IT Job #35288. Data for Quality Control Report 8010-5 can be found in IT Job #35303.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Sample: AF Plant 42 IRP-II ES Job 56394
Date of Analysis: 12/13/85

Sample	Total Oil and Grease(ug/g)
17-NFTC-SB1-SS10-30'-ITC	2
17-NFTC-SB1-SS5-10'-ITC	ND<2
17-NFTC-SB1-S15-10'-ITC	ND<2
22-ERAT-SB2-SS4-10'-ITC	ND<2
22-ERAT-SB1-SS4-10'-ITC	4
17-NFTC-SB2-SS2-2.5'-ITC	ND<2
5-AFTC-SB1-SS2-2.5'-ITC	11,040
17-NFTC-SB1-SS10-30'-ITC Duplicate	3
17-NFTC-SB1-SS10-30'-ITC Spike	31
Spike Concentration	27

Percent Recovery: 106%

Relative Percent Difference: 40.0

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

Engineering Science
Page 3

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35250-2
Field Sample No. 5-AFTC-SB1-SS2-2.5-ITC
Date Collected 12-6-85
Date Received 12-7-85
Date Analyzed 12-09-85
QC Report No. 8010-5

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

5-AFTC-SB1-SS2-2.5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroetnane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluorometnane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-11
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35250-2
Field Sample No. 5-AFTC-SB1-SS2-2.5-ITC
Date Collected 12-6-85
Date Received 12-7-85
Date Analyzed 12-9-85
QC Report No. 8020-5

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

Dilution Factor ç 1:100
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.250	ND<0.250	ND<0.250	---	---	
Chlorobenzene	----	----	ND<0.250	---	---	*
1,2-Dichlorobenzene	----	----	ND<0.250	---	---	*
1,3-Dichlorobenzene	----	----	ND<0.250	---	---	*
1,4-Dichlorobenzene	----	----	ND<0.250	---	---	*
Ethyl benzene	0.250	4.9	1.7	7.48	3.03	
Toluene	0.250	10.0	9.4	4.90	2.1	C
Xylenes (Dimethyl benzene)	0.250	48.0	91	7.92	3.2	C
				8.12		
				8.75		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

* See Halogenated Volatile Organics report sheets.

ç Large dilution due to matrix effects and for quantitation purposes.

C Confirm on second column.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

Date: October 10, 1986

Attn: Dennis R. Kasper

December 11, 1985 | 56394 | 35288/lac

REVISED REPORT

Four (4) soil samples.

Sample	Date	Time
4-VWT5-SB1-SS3-5-ITC	12-09-85	0900
4-VWT5-SB1-SS5-10-ITC	12-09-85	0900
4-VWT5-SB1-SS10-30-ITC	12-09-85	0900
4-VWT5-SB1-SS14-50-ITC	12-10-85	0900

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.

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. The results are listed on the following summary sheets.

In addition, the samples were digested with acid according to EPA Method 3050 and analyzed by AAS and ICP. The results are reported as Total Micrograms per gram and are listed in Table I. The Quality Control Data is listed in Table II.

The samples were also extracted according to EPA Method 3550 and then analyzed for total recoverable oil and grease by EPA Method 413.2. The results are listed in Table III and the Quality Control Data is listed in Table IV.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

	Micrograms/gram			
	4-VWT5-SB1-SS3-5-ITC	4-VWT5-SB1-SS5-10-ITC	4-VWT5-SB1-SS10-30-ITC	4-VWT5-SB1-SS14-50-ITC
Arsenic	ND<0.5	2.6	2.6	2.7
Barium	82	80	49	37
Cadmium	0.9	1.9	1.6	1.1
Total chromium	25	24	30	15
Lead	24	16	8	9
Mercury	0.02	0.03	ND<0.01	ND<0.01
Selenium	0.26	0.28	0.45	0.23
Silver	ND<0.3	ND<0.3	ND<0.3	ND<0.3

Date Analyzed: 12-16-85

Table II

Quality Control Data

	Micrograms/gram			Micrograms/gram		
	4-VWT5-SB1-SS3-5'-ITC	4-VWT5-SB1-SS3-5'-ITC Dup	Relative Percent Difference	4-VWT5-SB1-SS3-5'-ITC Spike	Spike Amount	Percent Recovery
Arsenic	ND<0.5	ND<0.5	--	2.8	0.95	240
Barium	82	78	5	210	47	270
Cadmium	0.9	2.5	94	5.9	4.7	106
Total chromium	25	25	0	36	9.5	116
Lead	24	16	40	57	47	70
Mercury	0.02	0.02	0	9.6	9.5	10.1
Selenium	0.26	0.16	48	0.17	0.095	0
Silver	ND<0.3	ND<0.3	--	3.5	47	7

Date Analyzed: 12-16-85

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Table III

	Total oil and grease Micrograms/gram
4-VWT5-SB1-SS3-5'-ITC	350
4-VWT5-SB1-SS5-10'-ITC	6
4-VWT5-SB1-SS10-30'-ITC	ND<2
4-VWT5-SB1-SS14-50'-ITC	ND<2

Table IV

Quality Control Data

	Total oil and grease Micrograms/gram
4-VWT5-SB1-SS14-50'-ITC	ND<2
4-VWT5-SB1-SS14-50'-ITC Duplicate	ND<2
Relative Percent Difference: 0	
4-VWT5-SB1-SS14-50'-ITC Spike	16
Spike Amount	15
Percent Recovery: 94	
Date Analyzed: 12-30-85	

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

Engineering Science
Page 4

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288014
Field Sample No. 4-VWT5-SB1-SS3-5'-ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8010-5

Sample Matrix:
___/ Water (ug/L)
__X__/ Soil (ug/g)
___/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample Number: 4-VWT5-SB1-SS3-5'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.104	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288013
Field Sample No. 4-VWT5-SB1-SS5-10'-ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8010-5

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)etner	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chloronexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample Number: 4-VWT5-SB1-SS5-10'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.058	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288022
Field Sample No. 4-VWT5-SB1-SS10-30'-ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8010-5

Sample Matrix:
___ / Water (ug/L)
_X_ / Soil (ug/g)
___ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample Number: 4-VWT5-SB1-SS10-30'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

NO - 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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288012
Field Sample No. 4-VWT5-SB1-SS14-50'-ITC
Date Collected 12-10-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8010-5

Sample Matrix:
/ / Water (ug/L)
/X / Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)etner	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochlorometnane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample Number: 4-VWT5-SB1-SS14-50'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.055	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 4VWT5-SB1-SS5-10'-ITC
Duplicates 35288-7, 35288-8
Spike 35288-9
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/Kg)
/ / Other

QC Report No. 8020-5
Date Analyzed 12-18-85
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	0.005	0.060	94	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	0.005	0.045	80	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.103	0.005	0.077	75	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.102	0.005	0.079	77	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.088	0.005	0.066	75	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	0.005	0.045	83	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	0.005	0.032	57	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	---	0.005	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288-5
Field Sample No. 4-VWT5-SB1-SS14-50'ITC
Date Collected 12-10-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288-4
Field Sample No. 4-VWT5-SB1-SS3-5'-ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Joo No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288-6
Field Sample No. 4-VWT5-SB1-SS10-30'-ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288-7
Field Sample No. 4-VWT5-SB1-SS5-10'ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288-8 Duplicate
Field Sample No. 4-VWT5-SB1-SS5-10'-ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 55394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35288-9 Spike
Field Sample No. 4-VWT5-SB1-SS5-10'-ITC
Date Collected 12-9-85
Date Received 12-11-85
Date Analyzed 12-18-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.060	---	2.6	---	
Chlorobenzene	0.005	0.047	---	8.1	---	
1,2-Dichlorobenzene	0.005	0.077	---	14.7	---	
1,3-Dichlorobenzene	0.005	0.079	---	13.1	---	
1,4-Dichlorobenzene	0.005	0.066	---	12.9	---	
Ethyl benzene	0.005	0.045	---	7.5	---	
Toluene	0.005	0.032	---	4.9	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

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

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 7, 1986

Attn: Mark Guthrie

December 12, 1985 | 56394 | 35303/lac

CORRECTED REVISED REPORT

Three (3) soil samples.

Sample	Date	Time
4-VWT5-SB2-SS14-50-ITC	12-10-85	1500
4-VWT5-SB2-SS10-30-ITC	12-10-85	1200
4-VWT5-SB2-SS5-10-ITC	12-10-85	1200

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.

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. The results are listed on the following summary sheets.

In addition, the samples were digested with acid according to EPA Method 3050 and analyzed by Atomic Absorption Spectroscopy and Inductively Coupled Plasma. The results are reported as Total Micrograms per Gram and are listed in Table I. The Quality Control Data is listed in Table II.

Also, the samples were extracted according to EPA Method 3550 and then analyzed for total recoverable oil and grease by EPA Method 413.2. The results are listed in Table III and the Quality Control Data is listed in Table IV.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

	Micrograms/gram		
	4-VWT5-SB2-SS14-50'-ITC	4-VWT5-SB2-SS10-30'-ITC	4-VWT5-SB2-SS5-10'-ITC
Arsenic	2.7	2.5	2.7
Barium	46	89	40
Cadmium	1.2	2.0	0.9
Total chromium	18	10	14
Lead	9	11	7
Mercury	ND<0.01	0.01	ND<0.01
Selenium	ND<0.05	ND<0.05	ND<0.05
Silver	ND<0.3	ND<0.3	ND<0.3

Date Analyzed: 12-16-85

Table II

Quality Control Data

	Micrograms/gram			Micrograms/gram		
	4-VWT5-SB2-SS14-50'-ITC	4-VWT5-SB2-SS14-50'-ITC Dup	Relative Percent Difference	4-VWT5-SB2-SS14-50'-ITC Spike	Spike Amount	Percent Recovery
Arsenic	2.7	2.4	12	2.8	0.97	10
Barium	46	48	4	93	49	96
Cadmium	1.2	1.4	15	0.99	4.9	0
Total chromium	18	16	12	31	9.7	134
Lead	9	9	0	41	49	98
Mercury	ND<0.01	ND<0.01	--	12	9.7	124
Selenium	ND<0.05	ND<0.05	--	ND<0.05	0.097	---
Silver	ND<0.3	ND<0.3	--	ND<0.3	49	0

Date Analyzed: 12-16-85

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Table III

	Total oil and grease Micrograms/gram
4-VWT5-SB2-SS14-50'-ITC	6
4-VWT5-SB2-SS10-30'-ITC	ND<2
4-VWT5-SB2-SS5-10'-ITC	12

Table IV

Quality Control Data

	Total oil and grease Micrograms/gram
4-VWT5-SB2-SS10-30'-ITC	ND<2
4-VWT5-SB2-SS10-30'-ITC Duplicate	ND<2
Relative Percent Difference: 0	
4-VWT5-SB2-SS10-30'-ITC Spike	46
Spike Amount	39
Percent Recovery: 118	
Date Analyzed: 01-02-86	

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

Engineering Science
Page 4

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 4-VWT5-SB2-SS14-50'-ITC
Duplicates 35303-5, 35303-6
Spike 35303-7
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

QC Report No. 8010-5
Date Analyzed 12-13-85
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery FR	Notes
Benzyl chloride	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Bis(2-chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	-	0.050	<0.010	0.053	106	
Bromoform	ND<0.010	ND<0.010	ND<0.010	-	0.050	<0.010	0.070	140	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	-	0.050	<0.010	0.041	82	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	-	0.050	<0.010	0.040	80	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	-	0.050	<0.010	0.043	86	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Chlorotoluene	ND<0.010	ND<0.010	ND<0.010	-	---	<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	-	0.178	<0.010	0.188	106	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB2-SS14-50'-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	-	--	<0.010	---	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	-	--	<0.010	---	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.041	82	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.051	102	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.037	74	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.046	92	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.059	118	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.042	84	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	-	0.178	<0.010	0.188	106	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.100	<0.010	0.092	92	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	-	--	<0.010	---	--	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	-	0.100	<0.010	0.092	92	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.053	106	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.178	<0.010	0.188	106	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.043	86	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	-	--	<0.010	---	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	-	--	<0.010	---	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	-	--	<0.010	---	--	

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

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
Page 6

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-3
Field Sample No. 4-VWT5-SB2-SS5-10'-ITC
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8010-5

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB2-SS5-10[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 8

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-4
Field Sample No. 4-VWT5-SB2-SS10-30'-IT
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8010-5

Sample Matrix:
( ) Water (ug/L)
(X) Soil (ug/g)
( ) 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB2-SS10-30'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.012	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

EG Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-5
Field Sample No. 4-VW75-SB2-SS14-SB1-[illegible]
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8010-5

Sample Matrix:
(__) Water (ug/L)
(X) Soil (ug/g)
(__) 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB2-SS14-50'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-6 DUP.
Field Sample No. 4-VWT5-SB2-SS14-50'-ITC
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8010-5

Sample Matrix:
__/ Water (ug/l)
_X_/ Soil (ug/g)
__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB2-SS14-50'-ITC DUP.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dipromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluorometnane	0.010	ND<0.010	---	---	---	
1,1-Dichloroetnane	0.010	ND<0.010	---	---	---	
1,2-Dichloroetnane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichlorcetnylene	0.010	ND<0.010	---	---	---	
Dicnlorometnane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachlorcetnane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichlorcethane	0.010	ND<0.010	---	---	---	
Trichlorcethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichlorcpropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount statec in the tacle above.

Engineering Science
Page 14

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-7 SPIKE
Field Sample No. 4-VWT5-SB2-GS14-60'-[illegible]
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8010-5

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.053	---	13.6	---	
Bromoform	0.010	0.070	---	19.0	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.041	---	13.1	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.040	---	23.6	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.043	---	10.8	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.188	---	16.3	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB2-SS14-50'-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.041	---	9.5	---	
1,2-Dichloroethane	0.010	0.051	---	11.5	---	
1,1-Dichloroethylene	0.010	0.037	---	8.4	---	
trans-1,2-dichloroethylene	0.010	0.046	---	10.3	---	
Dichloromethane	0.010	0.059	---	5.7	---	
1,2-Dichloropropane	0.010	0.042	---	14.9	---	
1,3-Dichloropropylene	0.010	0.188	---	16.3	---	
1,1,2,2-Tetrachloroethane	0.010	0.092	---	21.2	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.092	---	21.2	---	
1,1,1-Trichloroethane	0.010	0.053	---	12.7	---	
1,1,2-Trichloroethane	0.010	0.188	---	16.3	---	
Trichloroethylene	0.010	0.043	---	15.7	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-1
Field Sample No. 4-VWT5-SB2-SS10-30'-ITC
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-2
Field Sample No. 4-VWT5-SB2-SS5-10'-ITC
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35303-3
Field Sample No. 4-VWT5-SB2-SS14-50'-ITC
Date Collected 12-10-85
Date Received 12-12-85
Date Analyzed 12-13-85
QC Report No. 8020-5

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	
			---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 7, 1986

Attn: Mark Guthrie

December 13, 1985 Job #56394 35328/lac

REVISED REPORT

Seven (7) soil samples.

Sample	Date	Time
6-OFTC-SB1-SS2-2.5-ITC	12-11-85	1200
6-OFTC-SB1-SS5-10-ITC	12-11-85	1200
6-OFTC-SB1-SS10-30-ITC	12-11-85	1200
6-OFTC-SB1-SS14-50-ITC	12-12-85	1600
7-ERA2-SB1-SS5-10-ITC	12-12-85	1200
7-ERA2-SB1-SS10-30-ITC	12-12-85	1200
7-ERA2-SB1-SS14-50-ITC	12-12-85	1200

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.

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. The results are listed on the following summary sheets.

Also, the samples were extracted according to EPA Method 3550 and then several were analyzed for total recoverable oil and grease by EPA Method 413.2 and the remaining were analyzed for total recoverable petroleum hydrocarbons by EPA Method 418.1 The results are listed in Table I.

Data for Quality Control Report 8020-6 can be found with IT Job #35310.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

It is noted that a number of samples covered in this report show substantial concentrations of dichloromethane. At the time these samples were being analyzed, other work being done in the laboratory involved the use of dichloromethane. We believe the dichloromethane concentrations reported for these samples represent laboratory air contamination and should not be considered as being part of the samples. Laboratory procedures have been changed to minimize dichloromethane contamination in the future.

Sample: AF Plant 42 IRP-IT ES Job 56394
Date of Analysis: 01/03/86

Sample	Total Oil and Grease(µg/g)
6-OFTC-SB1-SS2-2.5'-ITC	15,600
6-OFTC-SB1-SS5-10'-ITC	1,500
6-OFTC-SB1-SS10-30'-ITC	20
6-OFTC-SB1-SS14-50'-ITC	ND<2

Sample	Total Petroleum Hydrocarbons(µg/g)
7-ERA2-SB1-SS5-10'-ITC	ND<2
7-ERA2-SB1-SS10-30'-ITC	9,420
7-ERA2-SB1-SS14-50'-ITC	670
7-ERA2-SB1-SS5-10'-ITC Duplicate	2
7-ERA2-SB1-SS5-10'-ITC Spike	19
Spike Concentration	17

Percent Recovery: +100%
Relative Percent Differenc: N/A

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

Engineering Science
Page 3

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 6-OFTC SB-1 SS-14 50-ITC
Duplicates 35328-18, 35328-19
Spike 35328-21
Sample Matrix:
/ / Water (ug/L)
/X / Soil (ug/g)
/ / Other

QC Report No. 8010-7
Date Analyzed 12-18-85
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Bis(2-chloroisopropyl)ether	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Bromobenzene	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Bromodichloromethane	ND 0.010	ND 0.010	ND 0.010	-	0.050	<0.010	0.043	86	
Bromoform	ND 0.010	ND 0.010	ND 0.010	-	0.050	<0.010	0.058	116	
Bromomethane	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Carbon tetrachloride	ND 0.010	ND 0.010	ND 0.010	-	0.050	<0.010	0.038	76	
Chloroacetaldehyde	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Chloral	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Chlorobenzene	ND 0.010	ND 0.010	ND 0.010	-	0.050	<0.010	0.038	76	
Chloroethane	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Chloroform	ND 0.010	ND 0.010	ND 0.010	-	0.050	<0.010	0.048	96	
1-Chlorohexane	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Chloromethane	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Chloromethyl methyl ether	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Chlorotoluene	ND 0.010	ND 0.010	ND 0.010	-	---	<0.010	---	---	
Dibromochloromethane	ND 0.010	ND 0.010	ND 0.010	-	0.178	<0.010	0.160	90	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

6-OFTC-SB1-SS14-50-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.047	94	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.050	100	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.031	62	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.040	80	
Dichloromethane	ND< 0.010	9.9	2.9	109	0.050	6.4	ND< 0.010	---	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.043	86	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.178	<0.010	0.160	90	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.075	75	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.075	75	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.032	64	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.178	<0.010	0.160	90	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.054	108	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-15
Field Sample No. 6-OFTC-SB-1-SS-2-2.5' ITC
Date Collected 12-11-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8010-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/Kg)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

6-OFTC SB-1 SS-2 2.5' [illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromometnane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichlorometnane	0.010	2.610	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	0.190	---	15.8	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-17
Field Sample No. 6-OFTC-SB1-SS10-30-ITC
Date Collected 12-11-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8010-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis-2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis-2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

6-OFTC SB-1 SS-10 30' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	5.660	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-16
Field Sample No. 6-OFTC-SB1-SS5-10-I
Date Collected 12-11-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8010-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis-2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis-2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

6-OFTC SB-1 SS-5 10' [illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	6.650	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-18
Field Sample No. 6-OFTC-SB1-SS14-5C-ITC
Date Collected 12-12-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8010-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis-2-Chloroethoxylmethane	0.010	ND<0.010	---	---	---	
Bis-2-chloroisopropyllether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

6-OFTC SB-1 SS-14 50' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	9.900	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-19 Dup
Field Sample No. 6-OFTC-SB1-SS14-50-ITC
Date Collected 12-12-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8010-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis-2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis-2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

6-OFTC SB-1 SS-14 50' ITC DUP.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	2.870	---	5.7	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-21 SPIKE
Field Sample No. 6-OFTC-SB1-SS14-50-FTC
Date Collected 12-12-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8010-7

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	---	---	---	---	
Bis-2-Chloroethoxy)methane	0.010	---	---	---	---	
Bis-2-chloroisopropyl)ether	0.010	---	---	---	---	
Bromobenzene	0.010	---	---	---	---	
Bromodichloromethane	0.010	0.043	---	13.7	---	
Bromoform	0.010	0.058	---	18.8	---	
Bromomethane	0.010	---	---	---	---	
Carbon tetrachloride	0.010	0.036	---	13.1	---	
Chloroacetaldehyde	0.010	---	---	---	---	
Chloral	0.010	---	---	---	---	
Chlorobenzene	0.010	0.038	---	23.7	---	
Chloroethane	0.010	---	---	---	---	
Chloroform	0.010	0.048	---	10.8	---	
1-Chlorohexane	0.010	---	---	---	---	
2-Chloroethyl vinyl ether	0.010	---	---	---	---	
Chloromethane	0.010	---	---	---	---	
Chloroethyl methyl ether	0.010	---	---	---	---	
Chlorotoluene	0.010	---	---	---	---	
Dibromochloromethane	0.010	0.160	---	16.4	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

6-OFTC-SB1-SS14-50-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	---	---	---	---	
Dichlorodifluoromethane	0.010	---	---	---	---	
1,1-Dichloroethane	0.010	0.047	---	9.7	---	
1,2-Dichloroethane	0.010	0.050	---	11.3	---	
1,1-Dichloroethylene	0.010	0.031	---	8.5	---	
trans-1,2-dichloroethylene	0.010	0.040	---	10.3	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	0.043	---	14.9	---	
1,3-Dichloropropylene	0.010	0.160	---	16.4	---	
1,1,2,2-Tetrachloroethane	0.010	0.075	---	21.3	---	
1,1,1,2-Tetrachloroethane	0.010	---	---	---	---	
Tetrachloroethylene	0.010	0.075	---	21.3	---	
1,1,1-Trichloroethane	0.010	0.032	---	12.8	---	
1,1,2-Trichloroethane	0.010	0.160	---	16.4	---	
Trichloroethylene	0.010	0.054	---	15.8	---	
Trichlorofluoromethane	0.010	---	---	---	---	
Trichloropropane	0.010	---	---	---	---	
Vinyl chloride	0.010	---	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-13, 35328-11
Field Sample No. 6-OFTC SB-1 SS-5 10' FTC
Date Collected 12-11-85
Date Received 12-13-85
Date Analyzed 12-18-85, 12-31-85
QC Report No. 8020-6

Sample Matrix:
___ water (ug/L)
_X_ Soil
___ Other

Dilution Factor C conc, 1:100
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	3.910	---	14.5	---	
1,3-Dichlorobenzene	0.005	1.560	---	13.0	---	
1,4-Dichlorobenzene	0.005	1.830	---	12.7	---	
Ethyl benzene	0.005	0.011	---	7.4	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	1.280	---	7.9	---	
				8.2		
				8.3		

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35326-17, 35326-7
Field Sample No. 6-OFTC SB-1 SS-2 2.5 FTC
Date Collected 12-11-85
Date Received 12-13-85
Date Analyzed 12-18-85, 12-31-85
QC Report No. 8020-6

Sample Matrix:
___/ Water (ug/L)
_X_/ Soil
___/ Other

Dilution Factor ¢ con, 1:20
*Moisture ____ %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	ND<0.005	---	---	
Chlorobenzene	0.005	ND<0.005	ND<0.005	---	---	
1,2-Dichlorobenzene	0.005	19.5	ND<0.005	14.3	---	
1,3-Dichlorobenzene	0.005	7.530	ND<0.005	13.0	---	
1,4-Dichlorobenzene	0.005	8.950	ND<0.005	12.8	---	
Ethyl benzene	0.005	0.012	ND<0.005	7.4	---	
Toluene	0.005	0.0077	ND<0.005	4.9	---	
Xylenes (Dimethyl benzene)	0.005	7.660	ND<0.005	7.9	---	
				8.2		
				8.8		

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-10
Field Sample No. 6-OFTC SB-1 SS-14 50'ITC
Date Collected 12-12-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8020-6

Sample Matrix:
/ / Water (ug/L)
/X/ 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	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35328-11
Field Sample No. 6-OFTC SB-1 SS-10 30'ITC
Date Collected 12-11-85
Date Received 12-13-85
Date Analyzed 12-18-85
QC Report No. 8020-6

Sample Matrix:
/ / Water (ug/L)
/X/ 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	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetnyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O. Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Dennis R. Kasper

December 17, 1985 56394 35345

REVISED REPORT

Eight (8) soil samples.

Sample Number	Date	Time
7-ERA2-SB2-SS5-10'-ITC	12/13/85	1200
7-ERA2-SB2-SS10-30'-ITC	12/13/85	1200
7-ERA2-SB2-SS14-50'-ITC	12/13/85	1200
7-ERA2-SB2-SS15-10'-ITC	12/13/85	1200
7-ERA2-SB3-SS5-10'-ITC	12/14/85	0900
7-ERA2-SB3-SS8-20'-ITC	12/14/85	0900
7-ERA2-SB3-SS10-30'-ITC	12/14/85	0900
7-ERA2-SB3-SS14-50'-ITC	12/14/85	0900

The samples were extracted according to EPA Method 3550 and then analyzed for Total Recoverable Petroleum Hydrocarbons by EPA Method 418.1. The results are listed on the following page.

Gary Oishi
Group Leader

Eric W. Lindsay
Laboratory Manager I

Sample: AF Plant 42 IRP-II ES Job #56394
Date of Analysis: 1/3/86

Sample	Total Recoverable Petroleum Hydrocarbons (ug/g)
7-ERA2-SB2-SS5-10'-ITC	ND<2
7-ERA2-SB2-SS10-30'-ITC	2
7-ERA2-SB2-SS14-50'-ITC	ND<2
7-ERA2-SB2-SS15-10'-ITC	ND<2
7-ERA2-SB3-SS5-10'-ITC	3
7-ERA2-SB3-SS8-20'-ITC	5300
7-ERA2-SB3-SS10-30'-ITC	3200
7-ERA2-SB3-SS14-50'-ITC	340
*7-ERA2-SB1-SS5-10'-ITC	ND<2
*7-ERA2-SB1-SS5-10'-ITC DUPLICATE	2
*7-ERA2-SB1-SS5-10'-ITC SPIKE	19
*Spike Concentration	17

Percent Recovery: +100%

Relative Percent Difference: N/A

* - The QC results are from IT Job No. 35328; these samples were analyzed together with the samples in this report and only one set of QC analysis was performed.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

September 29, 1986

Attn: Dennis R. Kasper

December 21, 1985 56394 35357 Tac

REVISED REPORT

Five (5) soil samples.

Sample	Date	Time
2-PWD2-SB1-SS2-2.5-ITC	12-16-85	0900
2-PWD2-SB1-SS5-10-ITC	12-16-85	0900
2-PWD2-SB1-SS14-50-ITC	12-16-85	0900
2-PWD2-SB1-SS15-10-ITC	12-16-85	0900
2-PWD2-SB1-SS10-30-ITC	12-16-85	0900

The samples were extracted according to CAM Title 22 and analyzed by AAS and ICP. The samples were analyzed on a soluble basis, therefore they are reported as Milligrams Per Liter(mg/L). We were unable to do spikes on a soluble extract without changing the extraction conditions. The phenols were distilled and determined colorimetrically according to Standard Methods 510C. The results are listed in Table I.

The samples were also extracted according to EPA Method 3550 and then analyzed for total recoverable Oil and Grease by EPA Method 413.2 These results are listed in Table II. The Quality Control Data is listed in Table III.

In addition, the samples were also analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electroltyic conductivity detector. The samples were prepared according to EPA Method 8010.

Also, the samples were 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. The results are listed on the following summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

It is noted that a number of samples covered in this report show substantial concentrations of dichloromethane. At the time these samples were being analyzed, other work being done in the laboratory involved the use of Dichloromethane. We believe the dichloromethane concentrations reported for these samples represent laboratory air contamination and should not be considered as being part of the samples. Laboratory procedures have been changed to minimize dichloromethane contamination in the future.

Table I

	Milligrams/liter				
	2-PWD2-SB1-SS10-30-ITC	2-PWD2-SB1-SS2-2.5-ITC	2-PWD2-SB1-SS5-10-ITC	2-PWD2-SB1-SS14-50-ITC	2-PWD2-SB1-SS15-10-ITC
Arsenic	ND<0.05	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Barium	3.8	3.7	4.5	5.0	4.4
Cadmium	ND<0.03	0.11	ND<0.03	ND<0.03	ND<0.03
Total chromium	ND<0.06	0.7	0.2	0.1	ND<0.07
Lead	6.4	1.9	0.2	ND<0.2	ND<0.2
Mercury	ND<0.001	ND<0.001	0.13	0.001	ND<0.001
Selenium	0.02	0.022	0.02	0.018	0.027
Silver	ND<0.03	ND<0.03	ND<0.03	ND<0.03	ND<0.03
Phenol*	0.33	0.35	0.24	0.21	0.16

Date Analyzed: 12/24/85

* - Phenol results in ug/g, the samples were analyzed 12/28/85

Table II

	Total Oil and Grease(ug/g)
2-PWD2-SB1-SS2-2.5'-ITC	980
2-PWD2-SB1-SS5-10'-ITC	5
2-PWD2-SB1-SS10-30'-ITC	ND<2
2-PWD2-SB1-SS14-50'-ITC	27
2-PWD2-SB1-SS15-10-ITC	ND<2

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Table III

Quality Control Data

	Micrograms/gram Total Oil and Grease(ug/g)
2-PWD2-SB1-SS5-10'-ITC	5
2-PWD2-SB1-SS5-10'-ITC Dup	3
Relative Percent Difference: 50	
2-PWD2-SB1-SS5-10'-ITC Spike	30
Spike Amount	29
Percent Recovery: 93%	
Date Analyzed: 01/02/86	

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 2-PWD2-SB1-SS10-30-ITC
Duplicates 35357-056, 35357-057
Spike 35357-057
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other
Spike Source

QC Report No. 8010-11
Date Analyzed 12/31/85
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Bis(2-chloroisopropyl)ether	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Bromobenzene	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Bromodichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.050	100	
Bromoform	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.050	100	
Bromomethane	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Carbon tetrachloride	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.049	98	
Chloroacetaldehyde	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Chloral	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Chlorobenzene	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.045	90	
Chloroethane	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Chloroform	ND< 0.010	ND< 0.010	ND< 0.010	-	0.050	<0.010	0.050	100	
1-Chlorohexane	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Chloromethane	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Chloromethyl methyl ether	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Chlorotoluene	ND< 0.010	ND< 0.010	ND< 0.010	-	---	<0.010	---	---	
Dibromochloromethane	ND< 0.010	ND< 0.010	ND< 0.010	-	0.178	<0.010	0.157	88	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-SS10-30-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.053	106	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	104	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.068	136	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.053	106	
Dichloromethane	ND< 0.010	--	--	---	---	<0.010	---	--	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.066	132	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.178	<0.010	0.157	88	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.100	100	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	--	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.100	100	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.040	80	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.178	<0.010	0.157	88	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.048	96	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	--	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-052
Field Sample No. 2-PWD2-SB1-SS2-2.5-ITC
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/30/85
QC Report No. 8010-11

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/G)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-SS2-2.5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.060	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-053
Field Sample No. 2-PWD2-SB1-SS5-10-ITC
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/30/85
QC Report No. 8010-11

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.092	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 10

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-054
Field Sample No. 2-PWD2-SB1-SS14-50-ITC
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/30/85
QC Report No. 8010-11

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.117	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-055
Field Sample No. 2-PWD2-SB1-SS15-10-ITC
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/30/85
QC Report No. 8010-11

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-GS15-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	--	---	
Dichloromethane	0.010	0.080	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 14

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-056
Field Sample No. 2-PWD2-SB1-SS10-30-ITC
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/30/85
QC Report No. 8010-11

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.275	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-057 DUP
Field Sample No 2-PWD2-SB1-SS10-30-ITC
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/31/85
QC Report No. 8010-11

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-SS10-30-ITC DUP.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.102	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-058 SPIKE
Field Sample No. 2-PW02-SB1-SS10-30-ITC
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/31/85
QC Report No. 8010-11

Sample Matrix:
___ / Water (ug/L)
_X_ / Soil (ug/g)
___ / 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	0.010	---	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	---	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	---	---	---	---	
Bromobenzene	0.010	---	---	---	---	
Bromodichloromethane	0.010	0.050	---	13.7	---	
Bromoform	0.010	0.050	---	19.1	---	
Bromomethane	0.010	---	---	---	---	
Carbon tetrachloride	0.010	0.049	---	13.1	---	
Chloroacetaldehyde	0.010	---	---	---	---	
Chloral	0.010	---	---	---	---	
Chlorobenzene	0.010	0.045	---	23.9	---	
Chloroethane	0.010	---	---	---	---	
Chloroform	0.010	0.050	---	10.8	---	
1-Chlorohexane	0.010	---	---	---	---	
2-Chloroethyl vinyl ether	0.010	---	---	---	---	
Chloromethane	0.010	---	---	---	---	
Chloromethyl methyl ether	0.010	---	---	---	---	
Chlorotoluene	0.010	---	---	---	---	
Dibromochloromethane	0.010	0.157	---	16.4	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB1-SS10-30-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	---	---	---	---	
Dichlorodifluoromethane	0.010	---	---	---	---	
1,1-Dichloroethane	0.010	0.053	---	9.7	---	
1,2-Dichloroethane	0.010	0.052	---	11.6	---	
1,1-Dichloroethylene	0.010	0.068	---	8.6	---	
trans-1,2-dichloroethylene	0.010	0.053	---	10.3	---	
Dichloromethane	0.010	---	---	---	---	
1,2-Dichloropropane	0.010	0.066	---	15.0	---	
1,3-Dichloropropylene	0.010	0.157	---	16.4	---	
1,1,2,2-Tetrachloroethane	0.010	0.100	---	21.1	---	
1,1,1,2-Tetrachloroethane	0.010	---	---	---	---	
Tetrachloroethylene	0.010	0.100	---	21.1	---	
1,1,1-Trichloroethane	0.010	0.040	---	12.8	---	
1,1,2-Trichloroethane	0.010	0.157	---	16.4	---	
Trichloroethylene	0.010	0.048	---	15.8	---	
Trichlorofluoromethane	0.010	---	---	---	---	
Trichloropropane	0.010	---	---	---	---	
Vinyl chloride	0.010	---	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. $35357-14,35357-9,35357-12
Field Sample No. 2-PWD2-SB1-SS2-2.5-ITC
Date Collected 12/16/85
Date Received 12/18/85
Date Analyzed 12/30/85, 1/2/86
QC Report No. 8020-11

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

Dilution Factor ç conc, 1:10, 1:100
*Moisture %

Spike Source

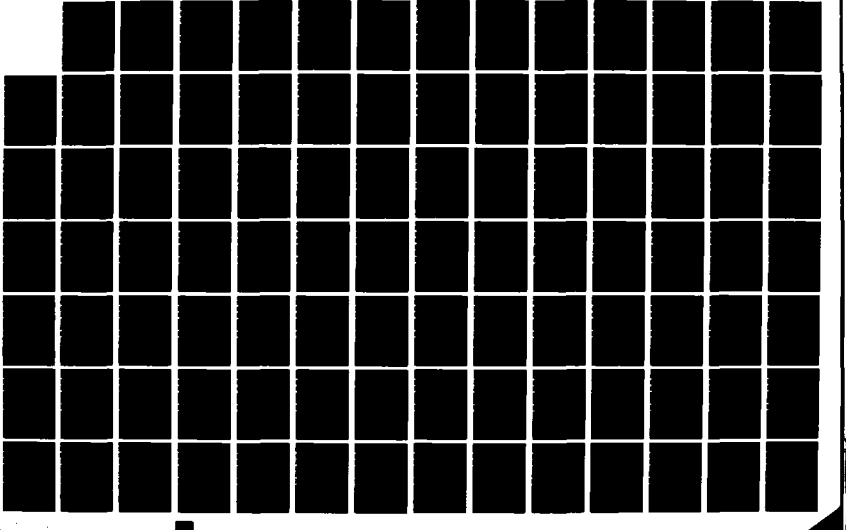
Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.5	ND<0.5	---	---	---	
1,3-Dichlorobenzene	0.5	4.8	---	13.0	---	
1,4-Dichlorobenzene	0.5	ND<0.5	---	---	---	
Ethyl benzene	0.5	0.14	---	7.3	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.05	2.0	---	7.9	---	
				8.2		
				8.8		

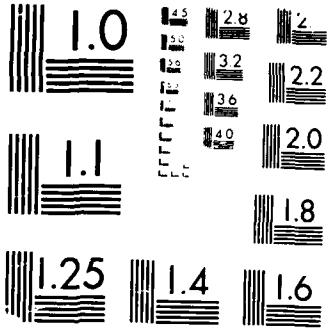
$ - Lab sample numbers represent the different dilutions used in the analysis of this sample.

ç - Several dilution factors were used a) to determine the detection limit or b) due to matrix effects.

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

AD-A190 943 INSTALLATION RESTORATION PROGRAM PHASE 2 2/7
CONFIRMATION/QUANTIFICATION STAG (U)
ENGINEERING-SCIENCE INC PASADENA CALIF 20 FEB 87
UNCLASSIFIED F33615-84-D-4403 F/G 24/7 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-13
Field Sample No. 2-PWD2-SB1-SS5-10-ITC
Date Collected 12/16/85
Date Received 12/18/85
Date Analyzed 12/30/86
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-15
Field Sample No. 2-PWD2-SB1-SS10-30-ITC
Date Collected 12/16/85
Date Received 12/18/85
Date Analyzed 12/31/86
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-15
Field Sample No. 2-PWD2-SB1-SS14-50-ITC
Date Collected 12/16/85
Date Received 12/18/85
Date Analyzed 12/30/86
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	0.009	---	14.5		
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	0.009	---	12.7		
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35357-14
Field Sample No. 2-PWD2-SB1-SS15-10-ITC
Date Collected 12/16/85
Date Received 12/18/85
Date Analyzed 12/31/86
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

17625 [illegible] • Carson, California 90746 • 213-921-9831 • 714-523-9220

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Dennis R. Kasper

December 19, 1985 | 56435 | 35374/rjc

REVISED REPORT

Eight (8) soil samples.

Sample Identification	Date	Time
2-PWD2-SB2-SS2-2.5-ITC	12-16-85	1500
2-PWD2-SB2-SS5-10-ITC	12-16-85	1500
2-PWD2-SB2-SS10-30-ITC	12-17-85	0900
2-PWD2-SB2-SS14-50-ITC	12-17-85	0900
2-PWD2-SB3-SS2-2.5-ITC	12-17-85	1200
2-PWD2-SB3-SS5-10-ITC	12-17-85	1200
2-PWD2-SB3-SS10-30-ITC	12-17-85	1200
2-PWD2-SB3-SS14-50-ITC	12-18-85	0900

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to CAM Title 22 and analyzed by AAS and ICP. The samples were analyzed on a soluble basis, therefore they are reported as Milligrams Per Liter (mg/g). We were unable to do spikes on a soluble extract without changing the extraction conditions. The phenols were distilled and determined colorimetrically according to standard method #510C. The results are listed in Table I.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Also, the samples were extracted according to EPA Method 3550 and then analyzed for Total recoverable Oil and Grease by EPA Method 413.2 The results are listed in Table II, and the Quality Control Data is listed in Table II.

It is noted that a number of samples covered in this report show substantial concentrations of dichloromethane. At the time these samples were being analyzed, other work being done in the laboratory involved the use of Dichloromethane. We believe the dichloromethane concentrations reported for these samples represent laboratory air contamination and should not be considered as being part of the samples. Laboratory procedures have been changed to minimize dichlormethane contamination in the future.

Table I

Date Analyzed: 12/24/85

	Milligrams/liter			
	2-PWD2-SB2-SS5-10'	2-PWD2-SB2-SS14 50'	2-PWD2-SB2-SS2-2.5	2-PWD-SB3-S22-2.5'
Arsenic	0.054	ND<0.05	ND<0.05	ND<0.05
Barium	4.2	4.9	2.1	3.9
Cadmium	ND<0.03	ND<0.03	0.07	0.06
Chromium	ND<0.06	0.07	0.52	0.16
Lead	0.2	ND<0.2	0.4	ND<0.2
Mercury	0.008	0.006	0.011	0.005
Selenium	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Silver	ND<0.03	ND<0.03	ND<0.03	ND<0.03
Phenol	ND<0.04	ND<0.04	0.88	0.76

	Milligrams/liter			
	2-PWD2-SB3-SS14-50'	2-PWD2-SB2-SS10-30'	2-PWD2-SB3-SS10-30'	2-PWD2-SB3 SS5-10'
Arsenic	ND<0.05	ND<0.05	ND<0.05	0.085
Barium	3.3	4.8	1.7	4.4
Cadmium	ND<0.03	ND<0.03	ND<0.03	0.05
Chromium	ND<0.06	ND<0.06	ND<0.06	0.17
Lead	ND<0.2	ND<0.2	ND<0.2	0.2
Mercury	0.005	0.025	0.006	0.005
Selenium	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Silver	ND<0.03	ND<0.03	ND<0.03	ND<0.03
Phenol	ND<0.04	ND<0.04	ND<0.04	0.16

* Phenol results are reported in ug/g; phenols analyzed on 12/21/85.

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

Table II

Sample: AF Plant 42 IRP-II ES Job #56394
Date of Analysis: 01/16/86

	Total Oil and Grease (ug/g)
2-PWD2-SB2-SS2-2.5'-ITC	35
2-PWD2-SB2-SS5-10'-ITC	ND<2
2-PWD2-SB2-SS10-30'-ITC	ND<2
2-PWD2-SB2-SS14-50'-ITC	10
2-PWD2-SB3-SS2-2.5'-ITC	ND<2
2-PWD2-SB3-SS5-10'-ITC	ND<2
2-PWD2-SB3-SS10-30'-ITC	ND<2
2-PWD2-SB3-SS14-50'-ITC	ND<2

Table III

Quality Control Data

	Total Oil and Grease (ug/g)
2-PWD2-SB3-SS10-30'-ITC	ND<2
2-PWD2-SB3-SS10-30'-ITC Dup.	ND<2
Relative Percent Difference: N/A	
2-PWD2-SB3-SS10-30'-ITC Spike	6000
Spike Amount	6000
Pecent Recovery: 100%	
Date Analyzed: 01/06/86	

N/A - Not applicable.

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
Page 4

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 2-PWD2-SB3-SS10-30-ITC
Duplicates 35374-4, 35374-5
Spike 35374-6
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ Other

QC Report No. 8010-12
Date Analyzed 1-2-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Benzyl chloride	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.052	104	
Bromoform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.048	96	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.045	90	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.053	106	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.052	104	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorotoluene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.178	<0.010	0.192	108	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB3-SS10-30'-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	0	--	<0.010	---	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	0	--	<0.010	---	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	0	0.050	<0.010	0.053	106	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	0	0.050	<0.010	0.056	112	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	0	0.050	<0.010	0.047	94	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	0	0.050	<0.010	0.046	92	
Dichloromethane	ND< 0.010	0.042	0.084	0.67	0.050	0.063	0.129	132	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	0	0.050	<0.010	0.063	126	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	0	0.178	<0.010	0.192	108	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	0	0.100	<0.010	0.106	106	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	0	--	<0.010	---	---	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	0	0.100	<0.010	0.106	106	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	0	0.050	<0.010	0.054	108	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	0	0.178	<0.010	0.192	108	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	0	0.050	<0.010	0.070	140	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	0	--	<0.010	---	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	0	--	<0.010	---	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	0	--	<0.010	---	--	

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

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
Page 6

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-73
Field Sample No. 2-PWD2-SB2-SS2-2.5-ITC
Date Collected 12/16/85
Date Received 12/19/85
Date Analyzed 12/31/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB2 SS2 2.5' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-72
Field Sample No. 2-PWD2-SB2-SS5-10-ITC
Date Collected 12/16/85
Date Received 12/19/85
Date Analyzed 12/31/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB2 SS5 10' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroetnylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 10

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-71
Field Sample No. 2-PWD2-SB2-SS10-30-ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 12/31/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB2 SS10 30' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-79
Field Sample No. 2-PWD2-SB2-SS14-50-ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 12/31/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromcchloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB2 SS14 50' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1.2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-70
Field Sample No. 2-PWD2-SB3-SS2-2.5-ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 12/31/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB3 SS2 2.5' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 16

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-76
Field Sample No. 2-PWD2-SB3-SS5-10-ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 12/31/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB3 SS5 10' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluorometnane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dicnloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroetnane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Tricnloroethylene	0.010	ND<0.010	---	---	---	
Tricnlorofluorometnane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detectea; tne limit of detection for this analysis is less tnan tne amount stated in tne table above.

Engineering Science
Page 18

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-74
Field Sample No. 2-PWD2-SB3-SS14-50-ITC
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 12/31/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X / Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB3 SS14 50' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.300	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 20

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-4
Field Sample No. 2-PWD2-SB3-SS10-30-ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 1/2/86
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X / Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB3 SS10 30' ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dipromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.042	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	--	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORP

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-5 DUP
Field Sample No. 2-PWD2-SB3-SS10-30-ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 1/2/86
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	----	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	----	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	----	---	
Bromobenzene	0.010	ND<0.010	---	----	---	
Bromodichloromethane	0.010	ND<0.010	---	----	---	
Bromoform	0.010	ND<0.010	---	----	---	
Bromomethane	0.010	ND<0.010	---	----	---	
Carbon tetrachloride	0.010	ND<0.010	---	----	---	
Chloroacetaldehyde	0.010	ND<0.010	---	----	---	
Chloral	0.010	ND<0.010	---	----	---	
Chlorobenzene	0.010	ND<0.010	---	----	---	
Chloroethane	0.010	ND<0.010	---	----	---	
Chloroform	0.010	ND<0.010	---	----	---	
1-Chlorohexane	0.010	ND<0.010	---	----	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	----	---	
Chloromethane	0.010	ND<0.010	---	----	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	----	---	
Chlorotoluene	0.010	ND<0.010	---	----	---	
Dibromochloromethane	0.010	ND<0.010	---	----	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB3 SS10 30' ITC DUP.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroetnane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.084	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-6 SPIKE
Field Sample No. 2-PWD2-SB3-SS10-30-ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 1/2/86
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.052	---	13.7	---	
Bromoform	0.010	0.048	---	8.9	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.045	---	13.1	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.053	---	23.7	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.052	---	10.8	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.192	---	16.4	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2 PWD2 SB3 SS10 30' ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.053	---	9.6	---	
1,2-Dichloroethane	0.010	0.056	---	11.6	---	
1,1-Dichloroethylene	0.010	0.047	---	8.4	---	
trans-1,2-dichloroethylene	0.010	0.046	---	10.8	---	
Dichloromethane	0.010	0.129	---	5.8	---	
1,2-Dichloropropane	0.010	0.063	---	15.0	---	
1,3-Dichloropropylene	0.010	0.192	---	16.4	---	
1,1,2,2-Tetrachloroethane	0.010	0.106	---	21.4	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.106	---	21.4	---	
1,1,1-Trichloroethane	0.010	0.054	---	12.8	---	
1,1,2-Trichloroethane	0.010	0.192	---	16.4	---	
Trichloroethylene	0.010	0.070	---	15.8	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 2 PWD2 SB-3 SS2 2.5' ITC
Duplicates 38374-34, 35374-42
Spike 35374-43
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/Kg)
/__/ Other

QC Report No. 8020-11
Date Analyzed 1/3/86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture ____ %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	<0.005	0.067	105	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	<0.005	0.041	73	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.103	<0.005	0.077	75	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.102	<0.005	0.076	75	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.088	<0.005	0.062	70	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.038	70	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	<0.005	0.045	80	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	--	<0.005	---	--	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-30
Field Sample No. 2 PWD2 SB2 SS2 2.5' ITC
Date Collected
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the of detection for this analysis is less than the amount stated in the table ve.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-28
Field Sample No. 2 PWD2 SB2 SS5 10' ITC
Date Collected
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-29
Field Sample No. 2 PWD2 SB2 SS10 30' ITC
Date Collected
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-31
Field Sample No. 2 PWD2 SB2 SS14 50' ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-34
Field Sample No. 2 PWD2 SB3 SS2 2.5' ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-42 DUP.
Field Sample No. 2 PWD2 SB3 SS2 2.5' ITC
Date Collected 12/16/85
Date Received 12/19/85
Date Analyzed 1/3/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-43 SPIKE
Field Sample No. 2 PWD2 SB3 SS2 2.5' ITC
Date Collected 12/16/85
Date Received 12/19/85
Date Analyzed 1/3/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.067	---	2.6	---	
Chlorobenzene	0.005	0.041	---	8.0	---	
1,2-Dichlorobenzene	0.005	0.077	---	14.5	---	
1,3-Dichlorobenzene	0.005	0.076	---	13.0	---	
1,4-Dichlorobenzene	0.005	0.062	---	12.7	---	
Ethyl benzene	0.005	0.038	---	7.4	---	
Toluene	0.005	0.045	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-27
Field Sample No. 2 PWD2 SB3 SS5 10' ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-32
Field Sample No. 2 PW 2 SB3 SS10 30' ITC
Date Collected 12/17/85
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35374-33
Field Sample No. 2 PWD2 SB3 SS14 50' TC
Date Collected 12/18/85
Date Received 12/19/85
Date Analyzed 1/2/85
QC Report No. 8020-11

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 6, 1986

Attn: Dennis R. Kasper

December 20, 1985 | 56394 | 35393/lac

REVISED REPORT

Four (4) soil samples.

Sample	Date	Time
2-PWD2-SB4-SS2-2.5-ITC	12-18-85	1200
2-PWD2-SB4-SS5-10-ITC	12-18-85	1200
2-PWD2-SB4-SS10-30-ITC	12-18-85	1400
2-PWD2-SB4-SS14-50-ITC	12-19-85	0900

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to CAM Title 22 and analyzed by AAS and ICP. The samples were analyzed on a soluble basis, therefore they are reported as Milligrams Per Liter(mg/L). Unable to do spikes on a soluble extract without changing the extraction conditions. The phenols were distilled and determined colorimetrically according to Standard Methods 510C. The results are listed in Table I.

Also, the samples were extracted according to EPA Method 3550 and then analyzed for total recoverable oil and grease by EPA Method 413.2. The results are listed in Table II, and the Quality Control Data is listed in Table III.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

	Milligrams/liter			
	2-PWD2-SB4-SS2-2.5'-ITC	2-PWD2-SB4-SS5-10'-ITC	2-PWD2-SB4-SS10-30'-ITC	2-PWD2-SB4-SS14-50'-ITC
Arsenic	ND<0.05	0.06	ND<0.06	ND<0.06
Barium	6.4	1.5	2.3	2.4
Cadmium	ND<0.03	0.04	ND<0.03	0.07
Total chromium	ND<0.06	0.06	0.06	0.28
Lead	ND<0.2	ND<0.2	ND<0.2	0.2
Mercury	0.003	0.005	0.003	0.005
Selenium	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Silver	ND<0.07	ND<0.07	ND<0.07	ND<0.07
Phenol*	0.92	0.08	0.16	0.08

Date Analyzed: 12/24/85

* - Phenol results in micrograms per grams(ug/g); phenols analyzed 12/21/85.

Date Analyzed: 12/24/85

Table II

Sample: AF Plant 42-IRP II ES Job #56394
Date of Analysis: 1/2/86

	Total Oil and Grease(ug/g)
2-PWD2-SB4-SS2-2.5'-ITC	3
2-PWD2-SB4-SS5-10'-ITC	ND<2
2-PWD2-SB4-SS10-30'-ITC	ND<2
2-PWD2-SB4-SS14-50'-ITC	ND<2

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Table III

Quality Control Data

	Total Oil and Grease(ug/g)
2-PWD2-SB4-SS2-2.5'-ITC	3
2-PWD2-SB4-SS2-2.5'-ITC Dup	3
Relative Percent Difference: 0	
2-PWD2-SB4-SS2-2.5'-ITC Spike	36
Spike Amount	30
Percent Recovery: 110	
Date Analyzed: 01/02/86	

Engineering Science
Page 4

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-87
Field Sample No. 2-PWD2-SB4-SS2-2.5'-ITC
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
Sw Method 8010

2-PWD2-SB4-SS2-2.5'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.032	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-88
Field Sample No. 2-PWD2-SB4-SS5-10'-ITC
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB4-SS5-10'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.042	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl Chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-89
Field Sample No. 2-PWD2-SB4-SS14-50'-ITC
Date Collected 12/19/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB4-SS14-50'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.010	---	9.6	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.171	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 10

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-90
Field Sample No. 2-PWD2-SB4-SS10-30'-ITC
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/2/86
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB4-SS10-30'-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.017	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 2-PWD2-SB4-SS14-50'-ITC
Duplicates 35393-49, 35393-50
Spike 35393-51
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

QC Report No. 8020-12
Date Analyzed 1/3/86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	<0.005	0.052	81	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	<0.005	0.049	88	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.103	<0.005	0.094	91	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.102	<0.005	0.091	89	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.088	<0.005	0.080	91	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.038	70	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	<0.005	0.054	96	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	--	<0.005	---	--	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-48
Field Sample No. 2-PWD2-SB4-SS2-2.5'-[illegible]
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/3/86
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-47
Field Sample No. 2-PWD2-SB4-SS5-10'-[illegible]
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/3/86
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-46
Field Sample No. 2-PWD2-SB4-SS10-30'-ITC
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/3/86
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-49
Field Sample No. 2-PWD2-SB4-SS14-50'-ITC
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/3/86
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-50 DUP
Field Sample No. 2-PWD2-SB4-SS14-50'-ITC
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/3/86
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35393-51 SPIKE
Field Sample No. 2-PWD2-SB4-SS14-50'-ITC
Date Collected 12/18/85
Date Received 12/20/85
Date Analyzed 1/3/86
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.052	---	2.6	---	
Chlorobenzene	0.005	0.049	---	8.0	---	
1,2-Dichlorobenzene	0.005	0.094	---	14.5	---	
1,3-Dichlorobenzene	0.005	0.091	---	13.0	---	
1,4-Dichlorobenzene	0.005	0.080	---	12.7	---	
Ethyl benzene	0.005	0.038	---	7.4	---	
Toluene	0.005	0.054	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Dennis R. Kasper

December 21, 1985 | 56394 | 35401/lac

REVISED REPORT

Five (5) soil samples.

Sample	Date	Time
18-ADA2-SB1-SS5-10-ITC	12-19-85	1100
18-ADA2-SB1-SS8-20-ITC	12-19-85	1100
2-PWD2-SB5-SS5-10-ITC	12-19-85	1600
2-PWD2-SB5-SS10-30-ITC	12-20-85	0900
2-PWD2-SB5-SS14-50-ITC	12-20-85	0900

Three samples were extracted according to CAM Title 22 and analyzed by AAS and ICP. The samples were analyzed on a soluble basis, therefore they are reported as Milligrams Per Liter(mg/L). We were unable to do spikes on a soluble extract without changing the extraction conditions. The phenols were distilled and determined colorimetrically according to Standard Methods 510C. The results are listed in Table I.

The five samples were extracted according to EPA Method 3550 and then analyzed for total recoverable Oil and Grease by EPA Method 413.2 These results are listed in Table II, and the Quality Control Data is listed in Table III.

The five samples were also analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electroltyic conductivity detector. The samples were prepared according to EPA Method 8010.

Also, the samples were 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. The results are listed on the following summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

Date Analyzed: 12/26/85

	Milligrams/liter		
	2-PWD2-SB5-SS14-50-'ITC	2-PWD2-SB5-SS5-10'-ITC	2-PWD2-SB5-SS10-30'-ITC
Arsenic	ND<0.05	ND<0.05	ND<0.05
Barium	5.8	3.3	3.0
Cadmium	ND<0.03	0.04	ND<0.03
Total chromium	0.18	0.07	ND<0.07
Lead	ND<0.2	ND<0.2	ND<0.2
Mercury	0.004	0.004	0.004
Selenium	0.022	0.012	0.019
Silver	ND<0.03	ND<0.03	ND<0.03
Phenol*	ND<0.1	ND<0.1	0.1 (mg/Kg)

*Phenols are reported in Micrograms/grams (ug/g); Phenols analyzed on 1/3/86.

Table II

Sample: AF Plant 42 IRP II ES Job #56394
Date Analyzed: 1/2/86

	Total Oil and Grease(ug/g)
18-ADA2-SB1-SS5-10'-ITC	ND<2
18-ADA2-SB1-SS8-20'-ITC	ND<2
2-PWD2-SB5-SS5-10'-ITC	ND<2
2-PWD2-SB5-SS10-30'-ITC	ND<2
2-PWD2-SB5-SS14-50'-ITC	ND<2

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Table III

Quality Control Data
Date Analyzed: 01/02/86

	Total Oil and Grease(ug/g)
2-PWD2-SB5-SS5-10'-ITC	ND<2
2-PWD2-SB5-SS5-10'-ITC Dup	ND<2
Relative Percent Difference: N/A	
2-PWD2-SB5-SS5-10'-ITC Spike	28
Spike Amount	30
Percent Recovery: 93%	

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
Page 4

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-048
Field Sample No. 2-PWD2-SB5-SS10-30-ITC
Date Collected 12/20/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8010-12

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB5-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.172	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 6

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-049
Field Sample No. 2-PWD2-SB5-SS14-50-ITC
Date Collected 12/20/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB5-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.307	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-050
Field Sample No. 18-ADA2-SB1-SS5-10-ITC
Date Collected 12/19/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

18-ADA2-SB1-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.267	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-05CR
Field Sample No. 2-PWD2-SB5-SS5-10-ITC
Date Collected 12/19/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

2-PWD2-SB5-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.021	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-051R
Field Sample No. 18-ADA2-SB1-SS8-20-ITC
Date Collected 12/19/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8010-12

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

18-ADA2-SB1-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.064	---	5.8	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-12
Field Sample No. 18-ADA2-SB1-SS5-10-ITC
Date Collected 12/19/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-9
Field Sample No. 18-ADA2-SB1-SS8-20-ITC
Date Collected 12/19/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-11
Field Sample No. 2-PWD2-SB5-SS5-10-ITC
Date Collected 12/19/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Etnyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-10
Field Sample No. 2-PWD2-SB5-SS10-30-ITC
Date Collected 12/20/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35401-8
Field Sample No. 2-PWD2-SB5-SS14-50-ITC
Date Collected 12/20/85
Date Received 12/21/85
Date Analyzed 12/30/85
QC Report No. 8020-12

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetnyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: M.A. Guthrie

January 31, 1986 | 56394 | 35730/lac

REVISED REPORT

Three (3) water samples.

Sample Number	Date	Time
DW3-1-ITC	1-30-86	0900
DW1-1-ITC	1-30-86	1030
DW8-1-ITC	1-30-86	1200

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.

One sample was also extracted according to soluble CAM Title 22 and analyzed by AAS. The cyanide was distilled and determined by Standard Methods 412B and 412E. The results are listed in the following metals and Environmental Quality Parameters summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 1-30-86
Date Received 1-31-86

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

QC Report No. 66700-6
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	Ni								
DW3-1-ITC	35730-1	ND<0.13								
Date Analyzed	M D	2/6								
Analytical Method	**	F								

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Metals

Page: 3
Report:

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/ml)
/ / Other _____
Spike Source(s) _____

Dilution Factor _____
*Moisture _____

QC Report No. _____
Laboratory Supervisor Approval:
_____

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Nickel	35730-2	35730-3	2/6	F	NA	3.89	3.69	0.05	4	0	3.89	97	

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

IT CORPORATION

ES Job No. 56394
Client
Project No. AF Plant IRP-II
Client No.
Date Collected 1-30-86
Date Received 1-31-86

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

QC Report No. 66700-6
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	CN									
DW3-1-ITC	35730-1	ND<0.1									
Date Analyzed	M D	2/3/86									
Analytical Method	**	412E									

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

Engineering Science

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Job #35730

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/ml)
/ / Other _____
Spike Source(s) _____

Dilution Factor _____
*Moisture _____

QC Report No. 412E
Laboratory Supervisor Approval: _____

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR
Cyanide	35730-2	35730-3	2/3/86	412-E	NA	ND<0.1	ND<0.1	---	5	0	5.6	112

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

Engineering Science
Page 6

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
~~SW Method 8010~~
EPA Method 601

Lab Sample Nos. DW3-1-ITC
Duplicates 35730-3, 35730-6
Spike 35730-4
Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other
Spike Source

QC Report No. 8010-13
Date Analyzed 2-6-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	SR	SSR	PR	Notes
Benzyl chloride	ND<2	ND<2	ND<2	---	---	<2	---	---	
Bis(2-Chloroethoxy)methane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Bis(2-chloroisopropyl)ether	ND<2	ND<2	ND<2	---	---	<2	---	---	
Bromobenzene	ND<2	ND<2	ND<2	---	---	<2	---	---	
Bromodichloromethane	ND<2	ND<2	ND<2	---	10	<2	12	120	
Bromoform	ND<2	ND<2	ND<2	---	10	<2	9.5	95	
Bromomethane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Carbon tetrachloride	ND<2	ND<2	ND<2	---	10	<2	11	110	
Chloroacetaldehyde	ND<2	ND<2	ND<2	---	---	<2	---	---	
Chloral	ND<2	ND<2	ND<2	---	---	<2	---	---	
Chlorobenzene	ND<2	ND<2	ND<2	---	10	<2	11	110	
Chloroethane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Chloroform	ND<2	ND<2	ND<2	---	10	<2	11	110	
1-Chlorohexane	ND<2	ND<2	ND<2	---	---	<2	---	---	
2-Chloroethyl vinyl ether	ND<2	ND<2	ND<2	---	---	<2	---	---	
Chloromethane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Chloromethyl methyl ether	ND<2	ND<2	ND<2	---	---	<2	---	---	
Chlorotoluene	ND<2	ND<2	ND<2	---	---	<2	---	---	
Dibromochloromethane	ND<2	ND<2	ND<2	---	35	<2	34	97	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW3-1-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Bromomethane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Dichlorodifluoromethane	ND<2	ND<2	ND<2	---	---	<2	---	---	
1,1-Dichloroethane	ND<2	ND<2	ND<2	---	10	<2	11	110	
1,2-Dichloroethane	ND<2	ND<2	ND<2	---	10	<2	11	110	
1,1-Dichloroethylene	ND<2	ND<2	ND<2	---	10	<2	12	120	
trans-1,2-dichloroethylene	ND<2	ND<2	ND<2	---	10	<2	11	110	
Dichloromethane	ND<2	ND<2	ND<2	---	10	<2	6.5	65	
1,2-Dichloropropane	ND<2	ND<2	ND<2	---	14	<2	15	107	
1,3-Dichloropropylene	ND<2	ND<2	ND<2	---	35	<2	34	97	
1,1,2,2-Tetrachloroethane	ND<2	ND<2	ND<2	---	20	<2	21	105	
1,1,1,2-Tetrachloroethane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Tetrachloroethylene	ND<2	ND<2	ND<2	---	20	<2	21	105	
1,1,1-Trichloroethane	ND<2	ND<2	ND<2	---	10	<2	9.3	93	
1,1,2-Trichloroethane	ND<2	ND<2	ND<2	---	35	<2	34	97	
Trichloroethylene	ND<2	ND<2	ND<2	---	10	<2	10	100	
Trichlorofluoromethane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Trichloropropane	ND<2	ND<2	ND<2	---	---	<2	---	---	
Vinyl chloride	ND<2	ND<2	ND<2	---	---	<2	---	---	

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

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
Halogenated Volatile Organics
~~SW Method 8010~~
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-6
Field Sample No. DW3-1-ITC
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-3-86
QC Report No. 8010-13

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	2	ND<2	---	---	---	
Bis(2-Chloroethoxy)methane	2	ND<2	---	---	---	
Bis(2-chloroisopropyl)ether	2	ND<2	---	---	---	
Bromobenzene	2	ND<2	---	---	---	
Bromodichloromethane	2	ND<2	---	---	---	
Bromoform	2	ND<2	---	---	---	
Bromomethane	2	ND<2	---	---	---	
Carbon tetrachloride	2	ND<2	---	---	---	
Chloroacetaldehyde	2	ND<2	---	---	---	
Chloral	2	ND<2	---	---	---	
Chlorobenzene	2	ND<2	---	---	---	
Chloroethane	2	ND<2	---	---	---	
Chloroform	2	ND<2	---	---	---	
1-Chlorohexane	2	ND<2	---	---	---	
2-Chloroethyl vinyl ether	2	ND<2	---	---	---	
Chloromethane	2	ND<2	---	---	---	
Chloromethyl methyl ether	2	ND<2	---	---	---	
Chlorotoluene	2	ND<2	---	---	---	
Dibromochloromethane	2	ND<2	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW3-1-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	2	ND<2	---	---	---	
Dichlorodifluoromethane	2	ND<2	---	---	---	
1,1-Dichloroethane	2	ND<2	---	---	---	
1,2-Dichloroethane	2	ND<2	---	---	---	
1,1-Dichloroethylene	2	ND<2	---	---	---	
trans-1,2-dichloroethylene	2	ND<2	---	---	---	
Dichloromethane	2	ND<2	---	---	---	
1,2-Dichloropropane	2	ND<2	---	---	---	
1,3-Dichloropropylene	2	ND<2	---	---	---	
1,1,2,2-Tetrachloroethane	2	ND<2	---	---	---	
1,1,1,2-Tetrachloroethane	2	ND<2	---	---	---	
Tetrachloroethylene	2	ND<2	---	---	---	
1,1,1-Trichloroethane	2	ND<2	---	---	---	
1,1,2-Trichloroethane	2	ND<2	---	---	---	
Trichloroethylene	2	ND<2	---	---	---	
Trichlorofluoromethane	2	ND<2	---	---	---	
Trichloropropane	2	ND<2	---	---	---	
Vinyl chloride	2	ND<2	---	---	---	

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

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
Page 10

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
~~SW Method 8010~~
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-8
Field Sample No. DW8-1-ITC
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-3-86
QC Report No. 8010-13

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	2	ND<2	---	---	---	
Bis(2-Chloroethoxy)methane	2	ND<2	---	---	---	
Bis(2-chloroisopropyl)ether	2	ND<2	---	---	---	
Bromobenzene	2	ND<2	---	---	---	
Bromodichloromethane	2	ND<2	---	---	---	
Bromoform	2	ND<2	---	---	---	
Bromomethane	2	ND<2	---	---	---	
Carbon tetrachloride	2	ND<2	---	---	---	
Chloroacetaldehyde	2	ND<2	---	---	---	
Chloral	2	ND<2	---	---	---	
Chlorobenzene	2	ND<2	---	---	---	
Chloroethane	2	ND<2	---	---	---	
Chloroform	2	ND<2	---	---	---	
1-Chlorohexane	2	ND<2	---	---	---	
2-Chloroethyl vinyl ether	2	ND<2	---	---	---	
Chloromethane	2	ND<2	---	---	---	
Chloromethyl methyl ether	2	ND<2	---	---	---	
Chlorotoluene	2	ND<2	---	---	---	
Dibromochloromethane	2	ND<2	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW8-1-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	2	ND<2	---	---	---	
Dichlorodifluoromethane	2	ND<2	---	---	---	
1,1-Dichloroethane	2	ND<2	---	---	---	
1,2-Dichloroethane	2	ND<2	---	---	---	
1,1-Dichloroethylene	2	ND<2	---	---	---	
trans-1,2-dichloroethylene	2	ND<2	---	---	---	
Dichloromethane	2	ND<2	---	---	---	
1,2-Dichloropropane	2	ND<2	---	---	---	
1,3-Dichloropropylene	2	ND<2	---	---	---	
1,1,2,2-Tetrachloroethane	2	ND<2	---	---	---	
1,1,1,2-Tetrachloroethane	2	ND<2	---	---	---	
Tetrachloroethylene	2	ND<2	---	---	---	
1,1,1-Trichloroethane	2	ND<2	---	---	---	
1,1,2-Trichloroethane	2	ND<2	---	---	---	
Trichloroethylene	2	ND<2	---	---	---	
Trichlorofluoromethane	2	ND<2	---	---	---	
Trichloropropane	2	ND<2	---	---	---	
Vinyl chloride	2	ND<2	---	---	---	

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

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
Page 12

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
~~SW Method 8010~~
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-7
Field Sample No. DW1-1-ITC
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-3-86
QC Report No. 8010-13

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	2	ND<2	---	---	---	
Bis(2-Chloroethoxy)methane	2	ND<2	---	---	---	
Bis(2-chloroisopropyl)ether	2	ND<2	---	---	---	
Bromobenzene	2	ND<2	---	---	---	
Bromodichloromethane	2	ND<2	---	---	---	
Bromoform	2	ND<2	---	---	---	
Bromomethane	2	ND<2	---	---	---	
Carbon tetrachloride	2	ND<2	---	---	---	
Chloroacetaldehyde	2	ND<2	---	---	---	
Chloral	2	ND<2	---	---	---	
Chlorobenzene	2	ND<2	---	---	---	
Chloroethane	2	ND<2	---	---	---	
Chloroform	2	ND<2	---	---	---	
1-Chlorohexane	2	ND<2	---	---	---	
2-Chloroethyl vinyl ether	2	ND<2	---	---	---	
Chloromethane	2	ND<2	---	---	---	
Chloromethyl methyl ether	2	ND<2	---	---	---	
Chlorotoluene	2	ND<2	---	---	---	
Dibromochloromethane	2	ND<2	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW1-1-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	2	ND<2	---	---	---	
Dichlorodifluoromethane	2	ND<2	---	---	---	
1,1-Dichloroethane	2	ND<2	---	---	---	
1,2-Dichloroethane	2	ND<2	---	---	---	
1,1-Dichloroethylene	2	ND<2	---	---	---	
trans-1,2-dichloroethylene	2	ND<2	---	---	---	
Dichloromethane	2	ND<2	---	---	---	
1,2-Dichloropropane	2	ND<2	---	---	---	
1,3-Dichloropropylene	2	ND<2	---	---	---	
1,1,2,2-Tetrachloroethane	2	ND<2	---	---	---	
1,1,1,2-Tetrachloroethane	2	ND<2	---	---	---	
Tetrachloroethylene	2	ND<2	---	---	---	
1,1,1-Trichloroethane	2	ND<2	---	---	---	
1,1,2-Trichloroethane	2	ND<2	---	---	---	
Trichloroethylene	2	ND<2	---	---	---	
Trichlorofluoromethane	2	ND<2	---	---	---	
Trichloropropane	2	ND<2	---	---	---	
Vinyl chloride	2	ND<2	---	---	---	

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

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
Halogenated Volatile Organics
~~SW Method 8010~~
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-3
Field Sample No. DW3-1-ITC DUP.
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-6-86
QC Report No. 8010-13

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	2	ND<2	---	---	---	
Bis(2-Chloroethoxy)methane	2	ND<2	---	---	---	
Bis(2-chloroisopropyl)ether	2	ND<2	---	---	---	
Bromobenzene	2	ND<2	---	---	---	
Bromodichloromethane	2	ND<2	---	---	---	
Bromoform	2	ND<2	---	---	---	
Bromomethane	2	ND<2	---	---	---	
Carbon tetrachloride	2	ND<2	---	---	---	
Chloracetaldehyde	2	ND<2	---	---	---	
Chloral	2	ND<2	---	---	---	
Chlorobenzene	2	ND<2	---	---	---	
Chloroethane	2	ND<2	---	---	---	
Chloroform	2	ND<2	---	---	---	
1-Chlorohexane	2	ND<2	---	---	---	
2-Chloroethyl vinyl ether	2	ND<2	---	---	---	
Chloromethane	2	ND<2	---	---	---	
Chloromethyl methyl ether	2	ND<2	---	---	---	
Chlorotoluene	2	ND<2	---	---	---	
Dibromochloromethane	2	ND<2	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW3-1-ITC DUP.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	2	ND<2	---	---	---	
Dichlorodifluoromethane	2	ND<2	---	---	---	
1,1-Dichloroethane	2	ND<2	---	---	---	
1,2-Dichloroethane	2	ND<2	---	---	---	
1,1-Dichloroethylene	2	ND<2	---	---	---	
trans-1,2-dichloroethylene	2	ND<2	---	---	---	
Dichloromethane	2	ND<2	---	---	---	
1,2-Dichloropropane	2	ND<2	---	---	---	
1,3-Dichloropropylene	2	ND<2	---	---	---	
1,1,2,2-Tetrachloroethane	2	ND<2	---	---	---	
1,1,1,2-Tetrachloroethane	2	ND<2	---	---	---	
Tetrachloroethylene	2	ND<2	---	---	---	
1,1,1-Trichloroethane	2	ND<2	---	---	---	
1,1,2-Trichloroethane	2	ND<2	---	---	---	
Trichloroethylene	2	ND<2	---	---	---	
Trichlorofluoromethane	2	ND<2	---	---	---	
Trichloropropane	2	ND<2	---	---	---	
Vinyl chloride	2	ND<2	---	---	---	

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

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
Halogenated Volatile Organics
~~SW Method 8010~~
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-4
Field Sample No. DW3-1-ITC SPIKE
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-6-86
QC Report No. 8010-13

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	2	ND<2	---	---	---	
Bis(2-Chloroethoxy)methane	2	ND<2	---	---	---	
Bis(2-chloroisopropyl)ether	2	ND<2	---	---	---	
Bromobenzene	2	ND<2	---	---	---	
Bromodichloromethane	2	12	---	13.8	---	
Bromoform	2	9.5	---	19.2	---	
Bromomethane	2	ND<2	---	---	---	
Carbon tetrachloride	2	11	---	13.3	---	
Chloroacetaldehyde	2	ND<2	---	---	---	
Chloral	2	ND<2	---	---	---	
Chlorobenzene	2	11	---	23.8	---	
Chloroethane	2	ND<2	---	---	---	
Chloroform	2	11	---	11.0	---	
1-Chlorohexane	2	ND<2	---	---	---	
2-Chloroethyl vinyl ether	2	ND<2	---	---	---	
Chloromethane	2	ND<2	---	---	---	
Chloromethyl methyl ether	2	ND<2	---	---	---	
Chlorotoluene	2	ND<2	---	---	---	
Dibromochloromethane	2	34	---	16.6	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW3-1-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	2	ND<2	---	---	---	
Dichlorodifluoromethane	2	ND<2	---	---	---	
1,1-Dichloroethane	2	11	---	9.8	---	
1,2-Dichloroethane	2	11	---	11.8	---	
1,1-Dichloroethylene	2	12	---	8.7	---	
trans-1,2-dichloroethylene	2	11	---	10.6	---	
Dichloromethane	2	6.5	---	6.0	---	
1,2-Dichloropropane	2	10	---	15.1	---	
1,3-Dichloropropylene	2	34	---	16.6	---	
1,1,2,2-Tetrachloroethane	2	21	---	21.4	---	
1,1,1,2-Tetrachloroethane	2	ND<2	---	---	---	
Tetrachloroethylene	2	21	---	21.4	---	
1,1,1-Trichloroethane	2	9.3	---	13.0	---	
1,1,2-Trichloroethane	2	34	---	16.6	---	
Trichloroethylene	2	10	---	15.9	---	
Trichlorofluoromethane	2	ND<2	---	---	---	
Trichloropropane	2	ND<2	---	---	---	
Vinyl chloride	2	ND<2	---	---	---	

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

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Lab Sample Nos. DW1-1-ITC
Duplicates 35370-10, 35370-5
Spike 35370-6
Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/Kg)
/ / Other

QC Report No. 602-13
Date Analyzed 2-4-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Benzene	ND<1	ND<1	ND<1	---	10	<1	14	140	
Chlorobenzene	ND<1	ND<1	ND<1	---	10	<1	11	110	
1,2-Dichlorobenzene	ND<1	ND<1	ND<1	---	11	<1	11	100	
1,3-Dichlorobenzene	ND<1	ND<1	ND<1	---	13	<1	13	100	
1,4-Dichlorobenzene	ND<1	ND<1	ND<1	---	10	<1	10	100	
Ethyl benzene	ND<1	ND<1	ND<1	---	11	<1	11	110	
Toluene	ND<1	ND<1	ND<1	---	10	<1	6.4	64	
Xylenes (Dimethyl benzene)	ND<1	ND<1	ND<1	---	---	<1	---	---	

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

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 Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-10
Field Sample No. DW1-1-ITC
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-3-86
QC Report No. 602-13

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Ethyl benzene	1	ND<1	---	---	---	
Toluene	1	ND<1	---	---	---	
Xylenes (Dimethyl benzene)	1	---	---	---	---	

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

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 Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-5
Field Sample No. DW1-1-ITC DUP.
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-4-86
QC Report No. 602-13

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

Dilution Factor N/A
*Moisture N/A %

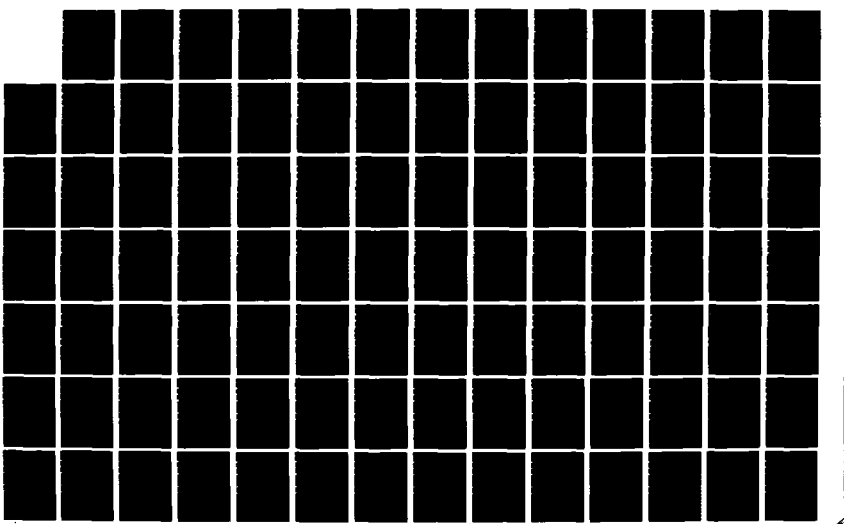
Spike Source

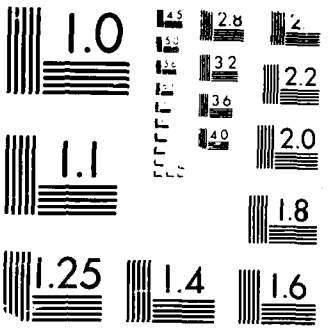
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Ethyl benzene	1	ND<1	---	---	---	
Toluene	1	ND<1	---	---	---	
Xylenes (Dimethyl benzene)	1	---	---	---	---	

* - If % Moisture is reported, results are presented on a dry w

ND - This compound was not detected; the limit of dete
than the amount stated in the table above.

AD-A190 943 INSTALLATION RESTORATION PROGRAM PHASE 2 3/7
CONFIRMATION/QUANTIFICATION STAG..(U)
ENGINEERING-SCIENCE INC PASADENA CALIF 20 FEB 87
UNCLASSIFIED F33615-84-D-4403 F/G 24/7 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-6
Field Sample No. DW1-1-ITC SPIKE
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-4-86
QC Report No. 602-13

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1	14	---	2.6	---	
Chlorobenzene	1	11	---	8.0	---	
1,2-Dichlorobenzene	1	11	---	14.6	---	
1,3-Dichlorobenzene	1	13	---	13.0	---	
1,4-Dichlorobenzene	1	10	---	12.8	---	
Ethyl benzene	1	11	---	7.5	---	
Toluene	1	6.4	---	4.9	---	
Xylenes (Dimethyl benzene)	1	---	---	---	---	

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

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 Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-11
Field Sample No. DW3-1-ITC
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-3-86
QC Report No. 602-13

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Ethyl benzene	1	ND<1	---	---	---	
Toluene	1	ND<1	---	---	---	
Xylenes (Dimethyl benzene)	1	---	---	---	---	

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

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 Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35730-8
Field Sample No. DW8-1-ITC
Date Collected 1-30-86
Date Received 1-31-86
Date Analyzed 2-3-86
QC Report No. 602-13

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	1	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Ethyl benzene	1	ND<1	---	---	---	
Toluene	1	ND<1	---	---	---	
Xylenes (Dimethyl benzene)	1	---	---	---	---	

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

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Dennis R. Kasper

February 3, 1986 | 56394 | 35742/jac

REVISED REPORT

Two (2) water samples:

Sample name	Date	Time
FW2B-ITC	1-31-86	0830
FW1-ITC	1-31-86	0930

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.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Engineering Science
Page 2

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35742-4
Field Sample No. FW2B-ITC
Date Collected 1-31-86
Date Received 2-3-86
Date Analyzed 2-3-86
QC Report No. 601-13

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	2	ND<2	---	---	---	
Bis(2-Chloroethoxy)methane	2	ND<2	---	---	---	
Bis(2-chloroisopropyl)ether	2	ND<2	---	---	---	
Bromobenzene	2	ND<2	---	---	---	
Bromodichloromethane	2	ND<2	---	---	---	
Bromoform	2	ND<2	---	---	---	
Bromomethane	2	ND<2	---	---	---	
Carbon tetrachloride	2	ND<2	---	---	---	
Chloroacetaldehyde	2	ND<2	---	---	---	
Chloral	2	ND<2	---	---	---	
Chlorobenzene	2	ND<2	---	---	---	
Chloroethane	2	ND<2	---	---	---	
Chloroform	2	ND<2	---	---	---	
1-Chlorohexane	2	ND<2	---	---	---	
2-Chloroethyl vinyl ether	2	ND<2	---	---	---	
Chloromethane	2	ND<2	---	---	---	
Chloromethyl methyl ether	2	ND<2	---	---	---	
Chlorotoluene	2	ND<2	---	---	---	
Dibromochloromethane	2	ND<2	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

FW28-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	2	ND<2	---	---	---	
Dichlorodifluoromethane	2	ND<2	---	---	---	
1,1-Dichloroethane	2	ND<2	---	---	---	
1,2-Dichloroethane	2	ND<2	---	---	---	
1,1-Dichloroethylene	2	ND<2	---	---	---	
trans-1,2-dichloroethylene	2	ND<2	---	---	---	
Dichloromethane	2	ND<2	---	---	---	
1,2-Dichloropropane	2	ND<2	---	---	---	
1,3-Dichloropropylene	2	ND<2	---	---	---	
1,1,2,2-Tetrachloroethane	2	ND<2	---	---	---	
1,1,1,2-Tetrachloroethane	2	ND<2	---	---	---	
Tetrachloroethylene	2	ND<2	---	---	---	
1,1,1-Trichloroethane	2	ND<2	---	---	---	
1,1,2-Trichloroethane	2	ND<2	---	---	---	
Trichloroethylene	2	ND<2	---	---	---	
Trichlorofluoromethane	2	ND<2	---	---	---	
Trichloropropane	2	ND<2	---	---	---	
Vinyl chloride	2	ND<2	---	---	---	

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
Page 4

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35742-5
Field Sample No. FW1-ITC
Date Collected 1-31-86
Date Received 2-3-86
Date Analyzed 2-3-86
QC Report No. 601-13

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

Dilution Factor N/A
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	2	ND<2	---	---	---	
Bis(2-Chloroethoxy)methane	2	ND<2	---	---	---	
Bis(2-chloroisopropyl)ether	2	ND<2	---	---	---	
Bromobenzene	2	ND<2	---	---	---	
Bromodichloromethane	2	ND<2	---	---	---	
Bromoform	2	ND<2	---	---	---	
Bromomethane	2	ND<2	---	---	---	
Carbon tetrachloride	2	ND<2	---	---	---	
Chloroacetaldehyde	2	ND<2	---	---	---	
Chloral	2	ND<2	---	---	---	
Chlorobenzene	2	ND<2	---	---	---	
Chloroethane	2	ND<2	---	---	---	
Chloroform	2	ND<2	---	---	---	
1-Chlorohexane	2	ND<2	---	---	---	
2-Chloroethyl vinyl ether	2	ND<2	---	---	---	
Chloromethane	2	ND<2	---	---	---	
Chloromethyl methyl ether	2	ND<2	---	---	---	
Chlorotoluene	2	ND<2	---	---	---	
Dibromochloromethane	2	ND<2	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

FW1-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	2	ND<2	---	---	---	
Dichlorodifluoromethane	2	ND<2	---	---	---	
1,1-Dichloroethane	2	ND<2	---	---	---	
1,2-Dichloroethane	2	ND<2	---	---	---	
1,1-Dichloroethylene	2	ND<2	---	---	---	
trans-1,2-dichloroethylene	2	ND<2	---	---	---	
Dichloromethane	2	ND<2	---	---	---	
1,2-Dichloropropane	2	ND<2	---	---	---	
1,3-Dichloropropylene	2	ND<2	---	---	---	
1,1,2,2-Tetrachloroethane	2	ND<2	---	---	---	
1,1,1,2-Tetrachloroethane	2	ND<2	---	---	---	
Tetrachloroethylene	2	ND<2	---	---	---	
1,1,1-Trichloroethane	2	ND<2	---	---	---	
1,1,2-Trichloroethane	2	ND<2	---	---	---	
Trichloroethylene	2	ND<2	---	---	---	
Trichlorofluoromethane	2	ND<2	---	---	---	
Trichloropropane	2	ND<2	---	---	---	
Vinyl chloride	2	ND<2	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

Lab Sample Nos. FW2B-ITC
Duplicates 35742-7, 35742-3
Spike 35742-8
Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/Kg)
/ / Other

QC Report No. 602-14
Date Analyzed 2-4-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Benzene	ND<1	ND<1	ND<1	---	10	<1	12	120	
Chlorobenzene	ND<1	ND<1	ND<1	---	11	<1	12	109	
1,2-Dichlorobenzene	ND<1	ND<1	ND<1	---	12	<1	12 ~~14~~	100 ~~117~~	
1,3-Dichlorobenzene	ND<1	ND<1	ND<1	---	12	<1	12 ~~13~~	100 ~~108~~	
1,4-Dichlorobenzene	ND<1	ND<1	ND<1	---	11	<1	12 ~~11~~	109 ~~100~~	
Ethyl benzene	ND<1	ND<1	ND<1	---	10	<1	12	120	
Toluene	ND<1	ND<1	ND<1	---	10	<1	13	130	
Xylenes (Dimethyl benzene)	ND<1	ND<1	ND<1	---	--	<1	--	--	

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 Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35742-3
Field Sample No. FW2B-ITC
Date Collected 1-30-86
Date Received 2-3-86
Date Analyzed 2-4-86
QC Report No. 602-14

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	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Ethyl benzene	1	ND<1	---	---	---	
Toluene	1	ND<1	---	---	---	
Xylenes (Dimethyl benzene)	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.

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35742-4
Field Sample No. FW1-ITC
Date Collected 1-30-86
Date Received 2-3-86
Date Analyzed 2-4-86
QC Report No. 602-14

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	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Ethyl benzene	1	ND<1	---	---	---	
Toluene	1	ND<1	---	---	---	
Xylenes (Dimethyl benzene)	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.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35742-7
Field Sample No. FW2B-ITC Dup
Date Collected 1-30-86
Date Received 2-3-86
Date Analyzed 2-4-86
QC Report No. 602-14

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	ND<1	---	---	---	
Chlorobenzene	1	ND<1	---	---	---	
1,2-Dichlorobenzene	1	ND<1	---	---	---	
1,3-Dichlorobenzene	1	ND<1	---	---	---	
1,4-Dichlorobenzene	1	ND<1	---	---	---	
Ethyl benzene	1	ND<1	---	---	---	
Toluene	1	ND<1	---	---	---	
Xylenes (Dimethyl benzene)	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.

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35742-8
Field Sample No. FW2B-ITC SPIKE
Date Collected 1-30-86
Date Received 2-3-86
Date Analyzed 2-4-86
QC Report No. 602-14

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	12	---	2.6	---	
Chlorobenzene	1	12	---	8.0	---	
1,2-Dichlorobenzene	1	12	---	14.5	---	
1,3-Dichlorobenzene	1	12	---	12.9	---	
1,4-Dichlorobenzene	1	12	---	12.7	---	
Ethyl benzene	1	12	---	7.4	---	
Toluene	1	12	---	4.9	---	
Xylenes (Dimethyl benzene)	1	12	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Mark A. Guthrie

February 5, 1986 | 56394 | 35778/lac

REVISED REPORT

Four (4) soil samples.

Sample Number	Date	Time
16-EVP3-SB1-SS2-2.5-ITC	2-3-86	0900
16-EVP3-SB1-SS5-10-ITC	2-3-86	0900
16-EVP3-SB1-SS10-30-ITC	2-3-86	0900
16-EVP3-SB1-SS14-50-ITC	2-3-86	0900

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to soluble CAM Title 22 and analyzed by AAS and ICP. The samples were analyzed on a soluble basis, therefore they are reported as Micrograms Per Milliliter(ug/ml). Unable to do spikes on a soluble extract without changing the extraction conditions. The cyanides were distilled and determined by Standard Methods 412B and 412E. The results are listed in the following Metals and Environmental Quality Parameters summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

ES Job No. 56394
Client
Project No. AF Plant 42 IRP II
Client No.
Date Collected 2-3-86
Date Received 2-5-86

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

QC Report No. 66700-1
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.		As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Ni
16-EVP3-SB1-SS2-2.5-ITC	35778-1		ND<0.03	4.8	ND<0.03	ND<0.06	ND<0.2	0.009	ND<0.003	ND<0.03	9.4
16-EVP3-SB1-SS5-10-ITC	35778-2		ND<0.03	3.4	ND<0.03	ND<0.06	ND<0.2	0.008	ND<0.003	0.3	0.2
16-EVP3-SB1-SS10-30-ITC	35778-3		ND<0.03	7.9	ND<0.03	ND<0.06	ND<0.2	0.012	ND<0.003	ND<0.03	0.7
16-EVP3-SB1-SS14-50-ITC	35778-4		ND<0.03	2.3	ND<0.03	ND<0.06	ND<0.2	0.012	ND<0.003	ND<0.03	0.1
Date Analyzed		M D	2/11	2/11	2/11	2/11	2/11	2/11	2/11	2/11	2/11
Analytical Method		**	G	P	P	P	P	C	G	P	P

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/mi)
/ / Other
Spike Source(s)

Dilution Factor
*Moisture

QC Report No. 66700-1
Laboratory Supervisor Approval:

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR
Arsenic	35778-4A&B	NA	2-11	G	NA	ND< 0.03	ND< 0.03	---	---	---	---	---
Barium	35778-4A&B	NA	2-11	P	NA	2.3	2.3	0	---	---	---	---
Cadmium	35778-4A&B	NA	2-11	P	NA	ND< 0.03	ND< 0.03	---	---	---	---	---
Chromium	35778-4A&B	NA	2-11	P	NA	ND< 0.06	ND< 0.06	---	---	---	---	---
Lead	35778-4A&B	NA	2-11	P	NA	ND<0.2	ND<0.2	---	---	---	---	---
Mercury	35778-4A&B	NA	2-11	C	NA	0.012	0.008	40	---	---	---	---
Selenium	35778-4A&B	NA	2-11	G	NA	ND< 0.003	ND< 0.003	---	---	---	---	---
Silver	35778-4A&B	NA	2-11	P	NA	ND< 0.03	ND< 0.03	---	---	---	---	---
Nickel	35778-4A&B	NA	2-11	P	NA	0.1	0.1	0	---	---	---	---

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

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56394
Client
Project No. AF Plant 42 IRP II
Client No.
Date Collected 2-3-86
Date Received 2-5-86

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

QC Report No. 412E-1
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	Cn								
16-EVP3-SB1-SS2-2.5-ITC	35778-1	0.65								
16-EVP3-SB1-SS5-10-ITC	35778-2	ND<0.5								
16-EVP3-SB1-SS10-30-ITC	35778-3	ND<0.5								
16-EVP3-SB1-SS14-50-ITC	35778-4	ND<0.5								
Date Analyzed	M D	2/6								
Analytical Method	**	412E								

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

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Job #35788

Sample Matrix:
/_/ Water (ug/L)
/X/ Soil (ug/g)
/_/ Other _____
Spike Source(s) _____

Dilution Factor _____
*Moisture _____

QC Report No. 412E-1
Laboratory Supervisor Approval:
_____

Analyte Metal	Laboratory Sample Nos.		Date Anal.	** Anal. Method	Blank	Duplicates			Spiked Recovery			
	Duplicates	Spike				C1	C2	RPD	SA	SR	SSR	PR
Cyanide	35778-4B	35778-4C	2.6	412-E	NA	5.69	6.17	8	7.96	0.65	5.93	74

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

IT CORPORATION

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 16-EVP3-SB1-SS2-2.5-ITC
Duplicates 35778-9, 35778-10
Spike 35778-12
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ Other

QC Report No. 8010-14
Date Analyzed 2-10-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.057	114	
Bromoform	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.083	166	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.048	96	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	---
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.046	92	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.049	98	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorotoluene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.18	<0.010	0.20	111	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB4-SS2-2.5-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.048	96	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.051	102	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.035	70	
trans-1,2-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.045	90	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.059	118	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.070	<0.010	0.072	103	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.175	<0.010	0.199	114	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.092	92	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.092	92	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.049	98	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.175	<0.010	0.199	114	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.046	92	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-9
Field Sample No. 16-EVP3-SB1-SS2-2.5-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-10-86
QC Report No. 8010-14

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB1-SS2-2.5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-10 DUP.
Field Sample No. 16-EVP3-SB1-SS2-2.5-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-10-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB1-SS2-2.5-ITC DUP.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 12

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-12 SPIKE
Field Sample No. 16-EVP3-SB1-SS2-2.5-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-10-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.057	---	13.9	---	
Bromoform	0.010	0.083	---	19.3	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.048	---	13.5	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.046	---	24.0	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.049	---	11.1	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.199	---	16.7	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB1-SS2-2.5-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.048	---	9.9	---	
1,2-Dichloroethane	0.010	0.051	---	11.8	---	
1,1-Dichloroethylene	0.010	0.035	---	8.7	---	
trans-1,2-dichloroethylene	0.010	0.045	---	10.6	---	
Dichloromethane	0.010	0.059	---	6.1	---	
1,2-Dichloropropane	0.010	0.072	---	15.2	---	
1,3-Dichloropropylene	0.010	0.199	---	16.7	---	
1,1,2,2-Tetrachloroethane	0.010	0.092	---	21.5	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.092	---	21.5	---	
1,1,1-Trichloroethane	0.010	0.049	---	13.1	---	
1,1,2-Trichloroethane	0.010	0.199	---	16.7	---	
Trichloroethylene	0.010	0.046	---	16.0	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-2B
Field Sample No. 16-EVP3-SB1-SS5-10-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-7-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB1-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 16

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-11
Field Sample No. 16-EVP3-SB1-SS10-30-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-10-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB1-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-4
Field Sample No. 16-EVP3-SB1-SS14-50-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-7-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB1-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 16-EVP3-SB1-SS14-50-ITC
Duplicates 35778-6, 35778-5
Spike 35778-6
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other
Spike Source

QC Report No. 8020-15
Date Analyzed 2-10-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	0.005	0.068	130	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	0.005	0.072	129	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	0.005	0.067	126	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	0.005	0.080	124	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	0.005	0.067	129	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	0.005	0.065	125	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	0.005	0.0105	210	
Xylenes (Dimetryl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	--	0.005	---	--	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-4
Field Sample No. 16-EVP3-SB1-SS2-2.5-1
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-7-86
QC Report No. 8020-15

Sample Matrix:
__/ Water (ug/L)
_X_ Soil (ug/g)
___/ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-5
Field Sample No. 16-EVP3-SB1-SS5-10-[illegible]
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-7-86
QC Report No. 8020-15

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

Dilution Factor N.A
*Moisture *

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Page 1 of

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-7
Field Sample No. 16-EVP3-SB1-SS10-30-[illegible]
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-7-86
QC Report No. 8020-15

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-6
Field Sample No. 16-EVP3-SB1-SS14-50-[illegible]
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-7-86
QC Report No. 8020-15

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-5 Dup.
Field Sample No. 16-EVP3-SB1-SS14-50-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-10-86
QC Report No. 8020-15

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35778-6 SPIKE
Field Sample No. 16-EVP3-SB1-SS14-60-ITC
Date Collected 2-3-86
Date Received 2-5-86
Date Analyzed 2-10-86
QC Report No. 8020-15

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.068	---	2.6	---	
Chlorobenzene	0.005	0.072	---	8.0	---	
1,2-Dichlorobenzene	0.005	0.067	---	14.6	---	
1,3-Dichlorobenzene	0.005	0.080	---	13.0	---	
1,4-Dichlorobenzene	0.005	0.068	---	12.8	---	
Ethyl benzene	0.005	0.065	---	7.4	---	
Toluene	0.005	0.105	---	4.9	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
Arcadia, CA 91006

October 8, 1986

Attn: Dennis R. Kasper

February 6, 1986 | 56394 | 35790/rjc

REVISED REPORT

Four (4) soil samples.

Sample Name	Date	Time
16-EVP3-SB2-SS3-5-ITC	2-3-86	1500
16-EVP3-SB2-SS8-20-ITC	2-3-86	1500
16-EVP3-SB2-SS14-50-ITC	2-5-86	0900
16-EVP3-SB3-SS2-2.5-ITC	2-5-86	1130

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to soluble CAM Title 22 and analyzed by AA and ICP. The samples were analyzed on a soluble basis, therefore they were reported as Microgram Per Milliliter (ug/ml). Unable to do spikes on a soluble extract without changing the extraction conditions. The cyanides were distilled and determined by Standard Methods 412B and 412E. The results are listed in the Metals summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

ES Job No. 56394
Client
Project No. AF Plant 42-IRP-II
Client No.
Date Collected 2-5-86
Date Received 2-6-86

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

QC Report No. 66700-2
Laboratory Supervisor Approval:
Dilution Factor
* Moisture %

Field Sample No.	Lab Sample No	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Ni
16-EVP3-SB3-SS2-2.5-ITC	35790-1	ND<0.03	3.5	ND<0.03	ND<0.06	ND<0.2	ND<0.001	ND<0.003	ND<0.03	0.5
16-EVP3-SB2-SS3-5-ITC	35790-2	ND<0.03	3.6	ND<0.03	ND<0.06	ND<0.2	ND<0.001	ND<0.003	0.6	3.3
16-EVP3-SB2-SS8-20-ITC	35790-3	ND<0.03	6.1	ND<0.03	ND<0.06	ND<0.2	ND<0.001	ND<0.003	ND<0.03	0.2
16-EVP3-SB2-SS14-50-ITC	35790-4a	ND<0.03	2.3	ND<0.03	ND<0.06	ND<0.2	ND<0.001	ND<0.003	0.03	0.1
Date Analyzed	M D	2 10	2 14	2 14	2 14	2 14	2 14	2 14	2 14	2 14
Analytical Method	**	G	P	P	P	P	C	G	P	P

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Metals

Job #35790

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/ml)
/ / Other _____
Spike Source(s) _____

Dilution Factor
*Moisture

QC Report No. 66700.2
Laboratory Supervisor Approval

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	Duplicates C2	Duplicates RPD	Spiked Recovery SA	Spiked Recovery SR	Spiked Recovery SSR	Spiked Recovery PR
Arsenic	35790-4a&b	N/A	2/10	G	N/A	ND< 0.03	ND< 0.03	---				
Barium	35790-4a&b	N/A	2/14	P	N/A	2.3	1.9	19				
Cadmium	35790-4a&b	N/A	2/14	P	N/A	ND< 0.03	ND< 0.03	---				
Chromium	35790-4a&b	N/A	2/14	P	N/A	ND< 0.06	ND< 0.06	---				
Lead	35790-4a&b	N/A	2/14	P	N/A	ND< 0.2	ND< 0.2	---				
Mercury	35790-4a&b	N/A	2/14	C	N/A	ND< ~~0.01~~ 0.001	ND< ~~0.01~~ 0.001	---				
Selenium	35790-4a&b	N/A	2/11	G	N/A	ND< 0.003	ND< 0.003	---				
Silver	35790-4a&b	N/A	2/14	P	N/A	0.03	ND< 0.03	---				
Nickel	35790-4a&b	N/A	2/14	P	N/A	0.1	ND< 0.1	---				

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

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 2-3, 5-86
Date Received 2-6-86

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

QC Report No. 412E-2
Laboratory Supervisor Approval:
Dilution Factor
* Moisture %

Field Sample No.	Lab Sample No.	CN								
16-EVP3-SB2-SS14-50-ITC	35790-4A	ND<0.4								
16-EVP3-SB2-SS8-20'-ITC	35790-3	ND<0.4								
16-EVP3-SB2-SS3-5-ITC	35790-2	ND<0.4								
16-EVP3-SB3-SS2-2.5'-ITC	35790-1	ND<0.4								
Date Analyzed	M D	2/7								
Analytical Method	**	412E								

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

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Job #35790

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

Dilution Factor
*Moisture

QC Report No. 412E-2
Laboratory Supervisor Approval:

Analytical Parameter	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	Analy. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR
Cyanide	35790 a & b	35790-C	2/7	412E	NA	14.9	14.8	0.7	19.99	TR<0.4	14.9	74

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

IT CORPORATION

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35790-7
Field Sample No. 16-EVP3-SB2-SS3-5-ITC
Date Collected 2-3-86
Date Received 2-6-86
Date Analyzed 2-11-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB2-SS3-5-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 8

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35790-8
Field Sample No. 16-EVP3-SB2-SS14-50-ITC
Date Collected 2-5-86
Date Received 2-6-86
Date Analyzed 2-11-86
QC Report No. 8010-14

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB2-SS14-50-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35790-9
Field Sample No. 16-EVP3-SB3-SS2-2.5-ITC
Date Collected 2-5-86
Date Received 2-6-86
Date Analyzed 2-11-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB3-SS2-2.5-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35790-10
Field Sample No. 16-EVP3-SB2-SS8-20-ITC
Date Collected 2-3-86
Date Received 2-6-86
Date Analyzed 2-11-86
QC Report No. 8010-14

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chlcroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromcchloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB2-SS8-20[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
vinyl chloride	0.010	ND<0.010	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35790-4
Field Sample No. 16-EVP3-SB2-SS3-5-IIC
Date Collected 2-3-86
Date Received 2-6-86
Date Analyzed 2-12-86
QC Report No. 8020-15

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

Dilution Factor
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Page 11

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Project No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Sample Matrix:
Water (ug/l)
Soil (ug/g)
Other
Sample Prep

Lab Sample No. 35790-5
Field Sample No. 16-EVP3-SB2-SS8-20-ITC
Date Collected 2-3-86
Date Received 2-6-86
Date Analyzed 2-11-86
QC Report No. 8020-15

Dilution Factor
*Moisture %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethylbenzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
1,2,4-Trichlorobenzene	0.005	ND<0.005	---	---	---	

*Moisture was not detected; the limit of detection for this analysis is the same as the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35790-6
Field Sample No. 16-EVP3-SB2-SS14-5[illegible]
Date Collected 2-5-86
Date Received 2-6-86
Date Analyzed 2-12-86
QC Report No. 8020-15

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

Dilution Factor
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42-IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35790-4
Field Sample No. 16-EVP3-SB3-SS2-2.5-[illegible]
Date Collected 2-5-86
Date Received 2-6-86
Date Analyzed 2-11-86
QC Report No. 8020-15

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

Dilution Factor
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	0.009	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Mark Guthrie

February 7, 1986 | 56394 | 35802/lac

REVISED REPORT

Four (4) soil samples.

Sample Number	Date	Time
16-EVP3-SB4-SS5-10-ITC	2-5-86	1530
16-EVP3-SB4-SS10-30-ITC	2-5-86	1530
16-EVP3-SB4-SS15-10-ITC	2-5-86	1530
16-EVP3-SB4-SS14-50-ITC	2-6-86	0830

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to soluble CAM Title 22 and analyzed by AAS and ICP. The samples were analyzed on a soluble basis, therefore they are reported as Micrograms Per Milliliter(ug/ml). Unable to do spikes on a soluble extract without changing the extraction conditions. The cyanides were distilled and determined by Standard Methods 412B and 412E. The results are listed in the following Metals and Environmental Quality Parameters summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

ES Job No. 56394
Client
Project No. AF Plant 42 IRP II
Client No.
Date Collected 2-5-86
Date Received 2-7-86

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

QC Report No. 66700-3
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.		As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Ni
16-EVP3-SB4-SS-5-10-ITC	35802-1		ND<0.03	4.4	ND<0.03	ND<0.06	0.6	ND<0.01	ND<0.003	ND<0.03	0.2
16-EVP3-SB4-SS10-30-ITC	35802-2		ND<0.03	4.3	ND<0.03	ND<0.06	ND<0.2	ND<0.01	ND<0.003	ND<0.03	0.3
16-EVP3-SB4-SS14-50-ITC	35802-3		ND<0.03	2.5	ND<0.03	ND<0.06	ND<0.2	ND<0.01	ND<0.003	ND<0.03	0.1
16-EVP3-SB4-SS15-10-ITC	35802-4		ND<0.03	2.4	ND<0.03	ND<0.06	ND<0.2	ND<0.01	ND<0.003	ND<0.03	0.2
Date Analyzed		M D	2/10	2/14	2/14	2/14	2/14	2/14	2/14	2/14	2/14
Analytical Method		**	G	P	P	P	P	C	G	P	P

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/ml)
/_/ Other _____
Spike Source(s) _____

Dilution Factor
*Moisture

QC Report No. 66700-3
Laboratory Supervisor Approval:

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	Duplicates C2	Duplicates RPD	Spiked Recovery SA	Spiked Recovery SR	Spiked Recovery SSR	Spiked Recovery PR
Arsenic	3/5802 4a&b	NA	2/10	G	ND< 0.03	ND< 0.03	ND< 0.03	---				
Barium	3/5802 4a&b	NA	2/14	P	ND< 0.3	2.4	2.2	8.7				
Cadmium	3/5802 4a&b	NA	2/14	P	ND< 0.03	ND< 0.03	ND< 0.03	---				
Chromium	3/5802 4a&b	NA	2/14	P	ND< 0.06	ND< 0.06	ND< 0.06	---				
Lead	3/5802 4a&b	NA	2/14	P	ND< 0.02	ND< 0.2	ND< 0.2	---				
Mercury	3/5802 4a&b	NA	2/14	C	ND< 0.01	ND< 0.01	ND< 0.01	---				
Selenium	3/5802 4a&b	NA	2/11	G	ND< 0.003	ND< 0.003	ND< 0.003	---				
Silver	3/5802 4a&b	NA	2/14	P	ND< 0.03	ND< 0.03	ND< 0.03	---				
Nickel	3/5802 4a&b	NA	2/14	P	ND< 0.13	0.2	0.2	0				

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

ES Job No. 56394
Client
Project No. AF Plant 42 IRP II
Client No.
Date Collected 2-5, 6-86
Date Received 2-7-86

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

QC Report No. 412E-3
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	CN								
16-EVP3-SB4-SS5-10-ITC	35802-1	ND<0.5								
16-EVP3-SB4-SS15-10-ITC	35802-2	ND<0.5								
16-EVP3-SB4-SS10-30-ITC	35802-3	ND<0.5								
16-EVP3-SB4-SS14-50-ITC	35802-4	ND<0.5								
Date Analyzed	M D	2/7								
Analytical Method	**	412E								

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

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

Dilution Factor _____
*Moisture _____

QC Report No. 412F-3
Laboratory Supervisor Approval: _____

Analyte Metal	Laboratory Sample Nos.		Date Anal.	** Anal. Method	Blank	Duplicates			Spiked Recovery			
	Duplicates	Spike				C1	C2	RPD	SA	SR	SSR	PR
Cyanide	35802 4b&c	35802 4b&c	2/14	412F	ND<0.1	16.40	15.76	4.0	19.82	ND<0.5	16.08	81

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

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 16 EVP3-SB4-SS5-10-ITC
Duplicates 35802-14, 35802-15
Spike 35802-16
Sample Matrix:
___ Water (ug/L)
___ Soil (ug/g)
___ Other _____

QC Report No. 8010-16
Date Analyzed _____
Laboratory Supervisor Approval: _____
Dilution Factor NA
*Moisture _____

Spike Source _____

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery %R	Notes
Benzyl chloride	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
bis(2-Chloroethoxy)methane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
bis(2-chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.038	76	
Bromoform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.055	110	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.029	58	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.035	70	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.041	82	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorotoluene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.175	<0.010	0.150	85	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB4-SS5-10-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Dichlorodifluoromethane	ND<0.010	ND<0.010	ND<0.010	---	--	<0.010	---	--	
1,1-Dichloroethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.033	66	
1,2-Dichloroethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.030	60	
1,1-Dichloroethylene	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.039	78	
trans-1,2-dichloroethylene	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.032	64	
Dichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.031	62	
1,2-Dichloropropane	ND<0.010	ND<0.010	ND<0.010	---	0.070	<0.010	0.055	79	
1,3-Dichloropropylene	ND<0.010	ND<0.010	ND<0.010	---	0.175	<0.010	0.150	86	
1,1,2,2-Tetrachloroethane	ND<0.010	ND<0.010	ND<0.010	---	0.100	<0.010	0.077	77	
1,1,1,2-Tetrachloroethane	ND<0.010	ND<0.010	ND<0.010	---	--	<0.010	---	--	
Tetrachloroethylene	ND<0.010	ND<0.010	ND<0.010	---	0.100	<0.010	0.077	77	
1,1,1-Trichloroethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.031	62	
1,1,2-Trichloroethane	ND<0.010	ND<0.010	ND<0.010	---	0.175	<0.010	0.150	85	
Trichloroethylene	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.037	74	
Trichlorofluoromethane	ND<0.010	ND<0.010	ND<0.010	---	--	<0.010	---	--	
Trichloropropane	ND<0.010	ND<0.010	ND<0.010	---	--	<0.010	---	--	
Vinyl chloride	ND<0.010	ND<0.010	ND<0.010	---	--	<0.010	---	--	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-11
Field Sample No. 16-EVP3-SB4-SS10-30-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-11-86
QC Report No. 8010-15

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Det Lim	Concentration Column 1	Concentration Column 2	Retention Time Column 1	Retention Time Column 2	Notes
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
Sw Method 8010

16-EVP3-SB4-SS10-00-1?

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-12
Field Sample No. 16-EVP3-SB4-SS14-50-ITC
Date Collected 2-6-86
Date Received 2-7-86
Date Analyzed 2-11-86
QC Report No. 8010-15

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVFB-SB4-SS14-F

	Determination			Retention Time		
		Column 1	Column 2	Column 1	Column 2	Note
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	
	0.010	ND<0.010	---	---	---	

not detected; the limit of detection for this analysis is
in the table above.

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-13
Field Sample No. 16-EVP3-SB4-SS15-1[illegible]
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-11-86
QC Report No. 8010-15

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB4-SS15-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-14
Field Sample No. 16-EVP3-SB4-SS5-10-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-11-86
QC Report No. 8010-15

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB4-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-15 DUP.
Field Sample No. 16-EVP3-SB4-SS5-10-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-11-86
QC Report No. 8010-15

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB4-SS5-10-ITC Dup.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-16 SPIKE
Field Sample No. 16-EVP3-SB4-SS5-10-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-11-86
QC Report No. 8010-15

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.038	---	13.9	---	
Bromoform	0.010	0.039	---	19.2	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.029	---	13.5	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.035	---	24.0	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.041	---	11.1	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.150	---	16.7	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-S54-SS5-10-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.033	---	9.9	---	
1,2-Dichloroethane	0.010	0.030	---	11.6	---	
1,1-Dichloroethylene	0.010	0.039	---	8.7	---	
trans-1,2-dichloroethylene	0.010	0.033	---	10.6	---	
Dichloromethane	0.010	0.031	---	6.1	---	
1,2-Dichloropropane	0.010	0.055	---	15.2	---	
1,3-Dichloropropylene	0.010	0.150	---	16.7	---	
1,1,2,2-Tetrachloroethane	0.010	0.077	---	21.5	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.077	---	21.5	---	
1,1,1-Trichloroethane	0.010	0.031	---	12.6	---	
1,1,2-Trichloroethane	0.010	0.150	---	16.7	---	
Trichloroethylene	0.010	0.036	---	16.8	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 16-EVP-SB4-SS15-10-ITC
Duplicates 35802-5, 35802-6
Spike 35802-7
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

QC Report No. 8020-15A
Date Analyzed 2-13-86
Laboratory Supervisor Approval:

Dilution Factor NA
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	ND< 0.005	0.042	80	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	ND< 0.005	0.055	100	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	ND< 0.005	0.053	100	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	ND< 0.005	0.063	98	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	ND< 0.005	0.050	96	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	ND< 0.005	0.048	92	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	ND< 0.005	0.041	82	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	--	ND< 0.005	---	--	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-5
Field Sample No. 16-EVP3-SB4-SS15-10-II
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-13-86
QC Report No. 8020-15A

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Submission Approval:

Lab Sample No. 35802-6 D.L.
Field Sample No. 16-EVP3-SB4-SS15-10-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-13-86
QC Report No. 8020-15A

Sample Matrix:
___ Water (ug/l)
_X_ Soil (ug/g)
___ Other

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethylbenzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethylbenzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervison Approval:

Lab Sample No. 35502-7 SB14
Field Sample No. 16-EVP3-SB4-SS10-1
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-13-86
QC Report No. 8020-154

Sample Matrix:
___ Water (ug/l)
_X_ Soil (ug/g)
___ Other

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.042	---	2.6	---	
Chlorobenzene	0.005	0.055	---	8.0	---	
1,2-Dichlorobenzene	0.005	0.053	---	14.6	---	
1,3-Dichlorobenzene	0.005	0.063	---	13.0	---	
1,4-Dichlorobenzene	0.005	0.050	---	12.8	---	
Ethyl benzene	0.005	0.048	---	7.5	---	
Toluene	0.005	0.041	---	4.9	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-4
Field Sample No. 16-EVP3-SB4-SS5-[illegible]
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-13-86
QC Report No. 8020-15A

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-8
Field Sample No. 16-EVP3-SB4-SS10-30-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-12-86
QC Report No. 8020-15A

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35802-7
Field Sample No. 16-EVP3-SB4-SS14-50-[illegible]
Date Collected 2-6-86
Date Received 2-7-86
Date Analyzed 2-12-86
QC Report No. 8020-15

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
Arcadia, CA 91006

October 8, 1986

Attn: Mark Guthrie

February 7, 1986 | 56394 | 35803/lac

REVISED REPORT

Four (4) soil samples.

Sample Number	Date	Time
16-EVP3-SB3-SS5-10-ITC	2-5-86	1130
16-EVP3-SB3-SS10-30-ITC	2-5-86	1130
16-EVP3-SB3-SS14-50-ITC	2-5-86	1130
16-EVP3-SB4-SS2-2.5-ITC	2-5-86	1530

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to soluble CAM Title 22 and analyzed by AAS and ICP. The samples were analyzed on a soluble basis, therefore they are reported as Micrograms Per Milliliter(ug/ml). Unable to do spikes on a soluble extract without changing the extraction conditions. The cyanides were distilled and determined by Standard Methods 412B and 412E. The results are listed in the following tables.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

FS Job No. 56394
Client
Project No. Air Plant 42 IRP-11
Client No.
Date Collected 2-5-86
Date Received 2-7-86

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

QC Report No. 66700-3
Laboratory Supervisor Approval:
Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Ni
16-EVP3-SB4-SS2-2.5-ITC	35803-1	ND< 0.03	4.4	ND< 0.03	ND< 0.06	ND< 0.2	0.01	ND< 0.003	ND< 0.03	0.4
16-EVP3-SB3-SS5-10-ITC	35803-2	ND< 0.03	2.8	ND< 0.03	ND< 0.06	ND< 0.2	0.01	ND< 0.003	ND< 0.03	0.3
16-EVP3-SB3-SS10-30-ITC	35803-3	ND< 0.03	4.1	ND< 0.03	ND< 0.06	ND< 0.2	ND< 0.01	ND< 0.003	ND< 0.03	0.1
16-EVP3-SB3-SS14-50-ITC	35803-4	ND< 0.03	1.7	ND< 0.03	ND< 0.06	ND< 0.2	ND< 0.01	ND< 0.003	ND< 0.03	ND< 0.1
Date Analyzed	M D	2/10	2/14	2/14	2/14	2/14	2/14	2/14	2/14	2/14
Analytical Method	**	G	P	P	P	P	C	G	P	P

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

F = Flame AAS C = Cold Vapor AAS G = Graphit furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

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

Dilution Factor
*Moisture

QC Report No.
Laboratory Supervisor Approval:

Spike Source(s) No Duplicates run.

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes

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

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

ES Job No. 56394
Client
Project No. AF Plant 42 IRP II
Client No.
Date Collected 2-5-86
Date Received 2-7-86

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

QC Report No. 412E-4
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	CN								
16-EVP3-SB3-SS5-10-ITC	35803-1	0.67								
16-EVP3-SB3-SS14-50-ITC	35803-2a	0.46								
16-EVP3-SB3-SS10-30-ITC	25803-3	ND<0.5								
16-EVP3-SB4-SS2-2.5-ITC	35803-4	0.46								
Date Analyzed	M D	2/7								
Analytical Method	**	412-E								

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

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Job #35803

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

Dilution Factor
*Moisture

QC Report No. 412E 4
Laboratory Supervisor Approval:

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR
Cyanide	NA	35802-2b	2/7	412E	ND<0.1	NA	NA	---	7.98	0.46	4.20	47

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

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-5
Field Sample No. 16-EVP3-SB4-SS2-2.5-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-12-86
QC Report No. 8010-15

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB4-SS2-2.5-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-6
Field Sample No. 16-EVP3-SB3-SS5-10-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-12-86
QC Report No. 8010-15

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB3-SS5-10-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-7
Field Sample No. 16-EVP3-SB3-SS10-30-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-12-86
QC Report No. 8010-15

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB3-SS10-3

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-8
Field Sample No. 16-EVP3-SB3-SS14-50-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-12-86
QC Report No. 8010-15

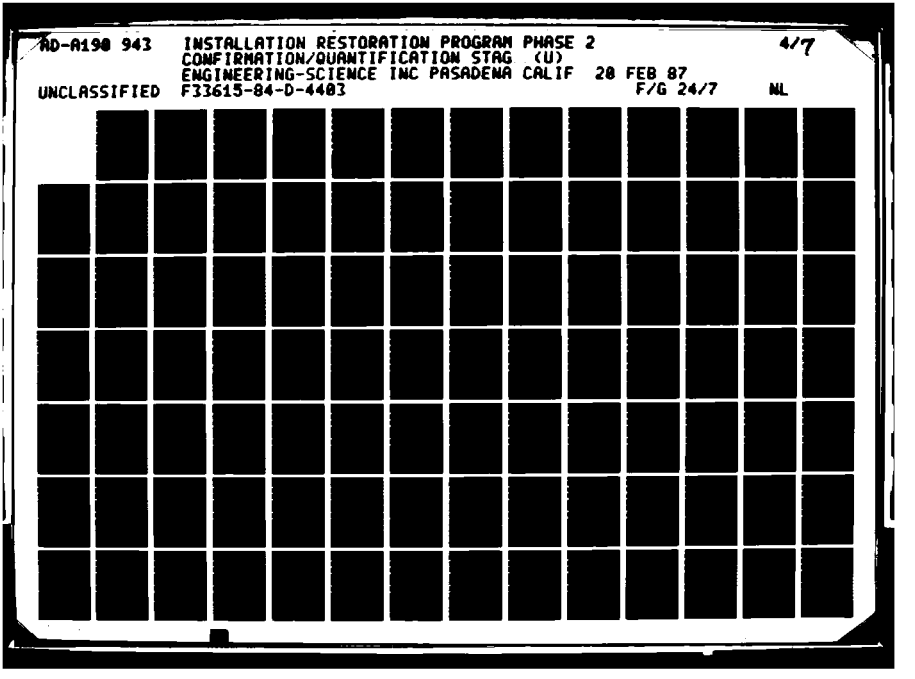
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

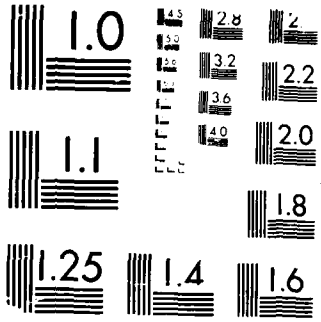
Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---		

continued on next page


AD-A190 943 INSTALLATION RESTORATION PROGRAM PHASE 2 4/7
CONFIRMATION/QUANTIFICATION STAG (U)
ENGINEERING-SCIENCE INC PASADENA CALIF 20 FEB 87
UNCLASSIFIED F33615-84-D-4403 F/G 24/7 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

16-EVP3-SB3-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 16-EVP3-SB4-SS10-30-ITC
Duplicates 35803-5, 35803-4 (2-14-86)
Spike 35803-5
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ Other
Spike Source

QC Report No. 8020-16
Date Analyzed 2-14-86, 2-18-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	<0.005	0.036	69	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	<0.005	0.042	76	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.044	83	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	<0.005	0.049	76	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	<0.005	0.039	75	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	<0.005	0.038	73	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	<0.005	0.041	82	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	--	<0.005	---	--	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-6
Field Sample No. 16-EVP3-SB3-SS5-10-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-14-86
QC Report No. 8020-16

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-5
Field Sample No. 16-EVP3-SB3-SS10-30-I
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-14-86
QC Report No. 8020-16

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Etnyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-4
Field Sample No. 16-EVP3-SB3-SS14-50-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-14-86
QC Report No. 8020-16

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetnyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-7
Field Sample No. 16-EVP3-SB4-SS2-2.5-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-14-86
QC Report No. 8020-16

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-4 DUP.
Field Sample No. 16-EVP3-SB3-SS10-30-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-18-86
QC Report No. 8020

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichloropenzene	0.005	ND<0.005	---	---	---	
1,3-Dichloropenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetnyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. E56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35803-5 SPIKE
Field Sample No. 16-EVP3-SB3-SS10-30-ITC
Date Collected 2-5-86
Date Received 2-7-86
Date Analyzed 2-18-86
QC Report No. 8020-16

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.036	---	2.6	---	
Chlorobenzene	0.005	0.042	---	8.0	---	
1,2-Dichlorobenzene	0.005	0.044	---	14.6	---	
1,3-Dichlorobenzene	0.005	0.049	---	13.0	---	
1,4-Dichlorobenzene	0.005	0.039	---	12.8	---	
Ethyl benzene	0.005	0.038	---	7.4	---	
Toluene	0.005	0.041	---	4.9	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: M.A. Guthrie

February 8, 1986 | 56394 | 35812/lac

REVISED REPORT

Three (3) soil samples.

Sample Number	Date	Time
5-AFTC-SB2-SS5-10-ITC	2-7-86	0900
5-AFTC-SB2-SS10-30-ITC	2-7-86	0900
5-AFTC-SB2-SS14-50-ITC	2-7-86	0900

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.

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. The results are listed on the following summary sheets.

The samples were analyzed for total recoverable oil and grease by infrared spectroscopy technique (EPA Method 413.2, Extraction Procedure EPA Method 3550). The results are listed in Table 1.

It is noted that a number of samples covered in this report show substantial concentrations of dichloromethane. At the time these samples were being analyzed, other work being done in the lab involved the use of dichloromethane. We believe the dichloromethane concentrations reported for these samples represent lab air contamination and should not be considered as being part of the samples. Lab procedures have been changed to minimize dichloromethane contamination in the future.

William P. Fassinger
Chemist

Eric W. Lindsay
Laboratory Manager I

Table I

Sample: AF Plant 42 IRP-II, ES Job No. 56394
Date of Analysis: 3-4-86

	Total Recoverable Oil and Grease (ug/g)
5-AFTC-SB2-SS5-10-ITC	7960
5-AFTC-SB2-SS10-30-ITC	1400
5-AFTC-SB2-SS14-50-ITC	2
5-AFTC-SB2-SS14-50-ITC DUP.	2
5-AFTC-SB2-SS14-50-ITC SPIKE	22
Spike Concentration	17

Percent Recovery: 118%

Relative Percent Difference: 0.00%

THIS PAGE INTENTIONALLY LEFT BLANK

Engineering Science
Page 3

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 5-AFTC-SB2-SS5-10-ITC
Duplicates 35812-11, 35812-12
Spike 35812-13
Sample Matrix:
/ / Water (ug/L)
/X / Soil (ug/g)
/ / Other
Spike Source

QC Report No. 8010-16
Date Analyzed 2-12-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.05	100	
Bromoform	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.06	112	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.04	80	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.05	100	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	---	0.05	<0.010	0.05	100	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorotoluene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	---	.175	<0.010	.160	91	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

5-AFTC-SB2-SS5-10-ITL

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	---	--	--	
1,2-Dichlorobenzene	ND< 0.010	ND< 0.010	ND< 0.010	---	--	---	--	--	
1,3-Dichlorobenzene	ND< 0.010	ND< 0.010	ND< 0.010	---	--	---	--	--	
1,4-Dichlorobenzene	ND< 0.010	ND< 0.010	ND< 0.010	---	--	---	--	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	---	--	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.048	96	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	104	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	103	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.046	93	
Dichloromethane	ND< 0.010	0.030	0.030	0.0	0.050	0.030	0.070	80	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.070	<0.010	0.070	100	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.175	<0.010	0.160	91	
1,1,2,2-Tetrachloroethane	ND< 0.010	0.018	0.014	0.25	0.100	0.018	0.097	79	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010		--	
Tetrachloroethylene	ND< 0.010	0.018	0.014	0.25	0.100	0.018	0.097	79	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.042	85	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.175	<0.010	0.160	91	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.046	92	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	--	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	--	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	--	--	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-9
Field Sample No. 5-AFTC-SB2-SS14-50-ITC
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-12-86
QC Report No. 8010-16

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

5-AFTC-SB2-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-10
Field Sample No. 5-AFTC-SB2-SS10-30-ITC
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-12-86
QC Report No. 8010-16

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

5-AFTC-SB2-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.034	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-11
Field Sample No. 5-AFTC-SB2-SS5-10-ITC
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-12-86
QC Report No. 8010-16

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

5-AFTC-SB2-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.030	---	6.1	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane CE	0.010	0.018	---	21.5	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene CE	0.010	0.018	---	21.5	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

CE - Compounds co-elute. Amount reported is total.

Engineering Science
Page 11

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-12
Field Sample No. 5-AFTC-SB2-SS5-10-ITC DUP
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-12-86
QC Report No. 8010-16

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

5-A. TC-SB2-SS5-10-ITC DUP

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	0.030	---	6.1	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane CE	0.010	0.014	---	21.5	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene CE	0.010	0.014	---	21.5	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

CE - Compounds co-elute. Amount reported is total.

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-13
Field Sample No. 5-AFTC-SB2-SS5-10-ITC SPIKE
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-12-86
QC Report No. 8010-16

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.050	---	13.9	---	
Bromoform	0.010	0.060	---	19.5	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.040	---	13.5	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.050	---	23.9	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.050	---	11.1	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.160	---	16.7	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

5-AFTC-SB2-SS5-10-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.048	---	9.9	---	
1,2-Dichloroethane	0.010	0.052	---	11.9	---	
1,1-Dichloroethylene	0.010	0.051	---	8.7	---	
trans-1,2-dichloroethylene	0.010	0.046	---	10.6	---	
Dichloromethane	0.010	0.070	---	6.1	---	
1,2-Dichloropropane	0.010	0.070	---	15.3	---	
1,3-Dichloropropylene	0.010	0.160	---	16.7	---	
1,1,2,2-Tetrachloroethane	0.010	0.097	---	21.5	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.097	---	21.5	---	
1,1,1-Trichloroethane	0.010	0.042	---	13.1	---	
1,1,2-Trichloroethane	0.010	0.160	---	16.7	---	
Trichloroethylene	0.010	0.046	---	16.0	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF PLANT 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-1
Field Sample No. 5-AFTC-SB2-SS14-50-ITC
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-19-86
QC Report No. 8020-16

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF PLANT 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-1
Field Sample No. 5-AFTC-SB2-SS10-30-[illegible]
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-21-86
QC Report No. 8020-16

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

Dilution Factor 1:100
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.5	0.8	---	2.7	---	
Chlorobenzene	0.5	ND<0.5	---	8.0	---	
1,2-Dichlorobenzene	0.5	ND<0.5	---	---	---	
1,3-Dichlorobenzene	0.5	ND<0.5	---	---	---	
1,4-Dichlorobenzene	0.5	7.2	---	12.5	---	
Ethyl benzene	0.5	ND<0.5	---	---	---	
Toluene	0.5	ND<0.5	---	---	---	
Xylenes (Dimethyl benzene)	0.5	2.1	---	8.0	---	
				6.2		
				8.7		

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF PLANT 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35812-7
Field Sample No. 5-AFTC-SB2-SS5-10-[illegible]
Date Collected 2-7-86
Date Received 2-8-86
Date Analyzed 2-20-86
QC Report No. 8020-16

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

Dilution Factor 1:100
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.5	ND<0.5	---	---	---	
Chlorobenzene	0.5	2	---	7.9	---	
1,2-Dichlorobenzene	0.5	ND<0.5	---	---	---	
1,3-Dichlorobenzene	0.5	ND<0.5	---	---	---	
1,4-Dichlorobenzene	0.5	ND<0.5	---	---	---	
Ethyl benzene	0.5	3.2	---	7.1	---	
Toluene	0.5	0.5	---	4.9	---	
Xylenes (Dimethyl benzene)	0.5	ND<0.5	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
Arcadia, CA 91006

October 8, 1986

Attn: Dennis R. Kasper

February 12, 1986 | 56394 | 35847/rjc

REVISED REPORT

Four (4) samples:

Sample Name	Date	Time
4-VWT5-SB3-SS3-5-ITC	2-10-86	1000
4-VWT5-SB3-SS8-20-ITC	2-10-86	1000
4-VWT5-SB4-SS3-5-ITC	2-10-86	1200
4-VWT5-SB4-SS8-20-ITC	2-10-86	1200

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.

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. The results are listed on the following summary sheets.

In addition, the samples were extracted according to soluble CAM Title 22 and analyzed by AA and ICP. The results are listed in the following Metals summary sheets.

Also, the samples were analyzed for oil and grease by infrared spectroscopy technique (EPA procedure 413.2). The results are listed in Table I.

William P. Fassinger
Chemist

Eric W. Lindsay
Laboratory Manager I

Date of Analysis: 2/13/86

Table I

Sample	Oil & Grease (ug/g)
4-VWT5-SB3-SS3-5-ITC	3
4-VWT5-SB3-SS8-20-ITC	ND<2
4-VWT5-SB4-SS3-5-ITC	ND<2
4-VWT5-SB4-SS8-20-ITC	ND<2
4-VWT5-SB4-SS8-20-ITC Spike	20
4-VWT5-SB4-SS8-20-ITC Duplicate	ND<2
Spike Concentration	20

% Recovery: +91%

Relative % Difference: N/A

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

Engineering Science

ANALYTICAL RESULTS SUMMARY
Metals

Report:

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 2-10-86
Date Received 2-12-86

Sample Matrix:
/_/ Water (ug/L)
/X/ Soil (ug/ml) CAM extract
/_/ Other

QC Report No. 66700-4
Laboratory Supervisor Approval:

Dilution Factor
* Moisture %

Field Sample No.	Lab Sample No.	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
4-VWT5-SB3-SS3-5-ITC	1	0.037	3.4	ND<0.03	ND<0.06	ND<0.2	0.003	ND<0.003	ND<0.03
4-VWT5-SB4-SS3-5-ITC	2	0.032	4.4	ND<0.03	ND<0.06	ND<0.2	0.002	ND<0.003	ND<0.03
4-VWT5-SB3-SS8-20-ITC	3	0.035	4.6	ND<0.03	ND<0.06	ND<0.2	0.002	ND<0.003	ND<0.03
4-VWT5-SB4-SS8-20-ITC	4a	ND<0.03	2.3	ND<0.03	ND<0.06	ND<0.2	0.002	ND<0.003	ND<0.03
Date Analyzed	M D	2/18	2/18	2/18	2/18	2/18	2/18	2/20	2/18
Analytical Method	**	G	P	P	P	P	C	G	P

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Metals

Report:

Sample Matrix:
/_/ Water (ug/L)
/X/ Soil (ug/ml)
/_/ Other _____
Spike Source(s)_____

Dilution Factor_____
*Moisture_____

QC Report No. 66700-4
Laboratory Supervisor Approval:
_____

Analyte Metal	Laboratory Sample Nos.		Date Anal.	** Anal. Method	Blank	Duplicates			Spiked Recovery			PR	Notes
	Dup.	Spike				C1	C2	RPD	SA	SR	SSR		
Arsenic	4b	NA	2-18-86	G	NA	ND<0.03	ND<0.03	---					
Barium	4b	NA	2-18-86	P	NA	2.3	2.8	20					
Cadmium	4b	NA	2-18-86	P	NA	ND<0.03	ND<0.03	---					
Chromium	4b	NA	2-18-86	P	NA	ND<0.06	ND<0.06	---					
Lead	4b	NA	2-18-86	P	NA	ND<0.2	ND<0.2	---					
Mercury	4b	NA	2-18-86	C	NA	0.002	0.002	0					
Selenium	4b	NA	2-20-86	G	NA	ND<0.003	ND<0.003	---					
Silver	4b	NA	2-18-86	P	NA	ND<0.03	ND<0.03	---					

THIS PAGE INTENTIONALLY LEFT BLANK

Engineering Science
Page 5

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-5
Field Sample No. 4-VWT5-SB4-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-13-86
QC Report No. 8010-16

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

Dilution Factor
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB4-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-6
Field Sample No. 4-VWT5-SB4-SS8-20-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-13-86
QC Report No. 8010-16

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

Dilution Factor
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB4-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-7
Field Sample No. 4-VWT5-SB3-SS8-20-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-13-86
QC Report No. 8010-16

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

Dilution Factor
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim.	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB3-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-8
Field Sample No. 4-VWT5-SB3-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-13-86
QC Report No. 8010-16

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

Dilution Factor
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

4-VWT5-SB3-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 4-VWTS-SB3-SS3-5-ITC
Duplicates 35847-1, 35847-3
Spike 35847-4
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ Other
Spike Source

QC Report No. 8020-17
Date Analyzed 2-18-86
Laboratory Supervisor Approval:
Dilution Factor NA
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	<0.005	0.042	80	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	<0.005	0.055	100	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.054	101	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	<0.005	0.061	95	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	<0.005	0.052	100	
Etryl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	<0.005	0.047	90	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	<0.005	0.030	60	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	--	--	---	--	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-1
Field Sample No. 4-VWT5-SB3-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-18-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-2
Field Sample No. 4-VWT5-SB4-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-18-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-3
Field Sample No. 4-VWT5-SB3-SS3-5-ITC DUP.
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-18-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-4
Field Sample No. 4-VWT5-SB3-SS3-5-ITC SPIKE
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-18-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.042	---	2.6	---	
Chlorobenzene	0.005	0.055	---	8.0	---	
1,2-Dichlorobenzene	0.005	0.054	---	14.6	---	
1,3-Dichlorobenzene	0.005	0.062	---	13.0	---	
1,4-Dichlorobenzene	0.005	0.052	---	12.8	---	
Ethyl benzene	0.005	0.047	---	7.4	---	
Toluene	0.005	0.030	---	4.9	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-5
Field Sample No. 4-VWT5-SB3-SS8-20-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-18-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35847-6
Field Sample No. 4-VWT5-SB4-SS8-20-ITC
Date Collected 2-10-86
Date Received 2-12-86
Date Analyzed 2-18-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Mark Guthrie

February 13, 1986 | 56394 | 35863/rjc

REVISED REPORT

Ten (10) soil samples:

Sample Number	Date	Time
23-BDD8-SB1-SS3-5-ITC	2-10-86	1600
23-BDD8-SB1-SS8-20-ITC	2-10-86	1600
7-ERA2-SB4-SS5-10-ITC	2-11-86	0840
7-ERA2-SB4-SS10-30-ITC	2-11-86	0840
7-ERA2-SB4-SS14-50-ITC	2-11-86	0840
15-TEB2-SB1-SS5-10-ITC	2-11-86	1515
15-TEB2-SB2-SS5-10-ITC	2-11-86	1615
15-TEB2-SB2-SS15-10-ITC	2-11-86	1615
14-EBA2-SB1-SS5-10-ITC	2-12-86	0830
14-EBA2-SB2-SS5-10-ITC	2-12-86	0945

The samples were analyzed for total petroleum hydrocarbons (TPH) by infrared spectroscopy technique (EPA procedure 418.1). The results are listed in Table I.

The samples were also extracted according to soluble CAM Title 22 and analyzed by AAS and ICP. The results are listed in the following Metals and Environmental Quality Parameters summary sheets.

In addition, 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.

Also, the samples were 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. The results are listed on the following summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

Sample: AF Plant 42 IRP-II, ES Job No. 56394
Date of Analysis: 2-19-86

	Total Petroleum Hydrocarbons (ug/g)
7-ERA2-SB4-SS5-10'-ITC	ND<2
7-ERA2-SB4-SS10-30'-ITC	ND<2
7-ERA2-SB4-SS14-50'-ITC	ND<2
14-EBA2-SB1-SS5-10'-ITC	ND<2
14-EBA2-SB2-SS5-10'-ITC	ND<2
15-TEB2-SB1-SS5-10'-ITC	17
15-TEB2-SB2-SS5-10'-ITC	4350
15-TEB2-SB2-SS15-10'-ITC	2800
7-ERA2-SB4-SS5-10'-ITC Dup.	ND<2
7-ERA2-SB4-SS5-10'-ITC Spike	18
Spike Concentration	18

Percent Recovery: 100%

Relative Percent Differnece: N/A

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Metals

Report:

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/ml)
/ / Other _____
Spike Source(s) _____

Dilution Factor _____
*Moisture _____

QC Report No. 66700-5
Laboratory Supervisor Approval: _____

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Arsenic	2	NA	2/18	G	NA	0.030	0.031	3					
Cadmium	2	NA	2/18	P	NA	ND< 0.03	ND< 0.03	---					
Barium	2	NA	2/18	P	NA	2.6	2.4	8					
Chromium	2	NA	2/18	P	NA	ND< 0.06	ND< 0.06	---					
Lead	2	NA	2/18	P	NA	ND< 0.19	ND< 0.19	---					
Mercury	2	NA	2/18	C	NA	0.003	0.006	66					
Selenium	2	NA	2/18	G	NA	ND< 0.003	ND< 0.003	---					
Silver	2	NA	2/18	P	NA	ND< 0.03	ND< 0.03	---					

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

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

Report:

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-11
Client No.
Date Collected 2-10-86
Date Received 2-13-86

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

QC Report No. 66700-5
Laboratory Supervisor Approval:
Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.		As	Cd	Ba	Cr	Pb	Hg	Se	Ag	
23-BDD8-SB1-SS3-5	1		0.044	ND<0.03	3.2	ND<0.06	ND<0.19	0.002	ND< 0.003	ND<0.03	
23-BDD8-SB1-SS8-20	2		0.030	ND<0.03	2.6	ND<0.06	ND<0.19	0.003	ND< 0.003	ND<0.03	
Date Analyzed		M D	2/18	2/18	2/18	2/18	2/18	2/19	2/18	2/18	
Analytical Method		**	G	P	P	P	P	C	G	P	

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

THIS PAGE INTENTIONALLY LEFT BLANK

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 88-8008-SB1-SS8-5-ITC
Duplicates 35863-10, 35863-11
Spike 35863-10

QC Report No. 8010-17
Date Analyzed 2-13-88
Laboratory Supervisor Approval:

Sample Weight:
Water (ug L)
(X) Soil (45 g)
Other

Dilution Factor N/A
*Moisture

Spike Solution

Compound	Blank	Duplicates C1	Duplicates C2	Duplicates RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery %R	Notes
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-chloroethyl) ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.040	80	
Bromoform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.044	88	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.039	78	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.046	91	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.044	89	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloroethene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.175	<0.010	0.164	94	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

23-BDD-SB1-SS3-5-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.042	84	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.044	89	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.042	84	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.044	89	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.043	85	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.070	<0.010	0.064	91	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.175	<0.010	0.164	94	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.087	87	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.087	87	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.045	90	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.175	<0.010	0.164	94	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.049	99	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP - II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35863-9
Field Sample No. 23-BDD8-SB1-SS8-[illegible]
Date Collected 2-10-86
Date Received 2-13-86
Date Analyzed 2-13-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

23-BDD8-SB1-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP - II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35863-10
Field Sample No. 23-BDD8-SB1-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-13-86
Date Analyzed 2-13-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

23-BDD8-SB1-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP - II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35863-11 DUP.
Field Sample No. 23-BDD8-SB1-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-13-86
Date Analyzed 2-13-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

23-BDD8-S81-SS3-5-ITC DUP.

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP - II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35863-12 SPIKE
Field Sample No. 23-BDD8-SB1-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-13-86
Date Analyzed 2-13-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.040	---	13.9	---	
Bromoform	0.010	0.044	---	19.5	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.039	---	13.5	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.046	---	23.9	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.044	---	11.1	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.164	---	16.7	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

23-BDD8-SB1-SS3-5-ITC SPIKE

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.042	---	9.9	---	
1,2-Dichloroethane	0.010	0.044	---	11.9	---	
1,1-Dichloroethylene	0.010	0.042	---	8.7	---	
trans-1,2-dichloroethylene	0.010	0.044	---	10.6	---	
Dichloromethane	0.010	0.043	---	6.1	---	
1,2-Dichloropropane	0.010	0.064	---	15.3	---	
1,3-Dichloropropylene	0.010	0.164	---	16.7	---	
1,1,2,2-Tetrachloroethane	0.010	0.087	---	21.5	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.087	---	21.5	---	
1,1,1-Trichloroethane	0.010	0.045	---	13.1	---	
1,1,2-Trichloroethane	0.010	0.164	---	16.7	---	
Trichloroethylene	0.010	0.049	---	16.0	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35863-4
Field Sample No. 23-BDD8-SB1-SS3-5-ITC
Date Collected 2-10-86
Date Received 2-13-86
Date Analyzed 2-18-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35863-5
Field Sample No. 23-BDD8-SB1-SS8-20-ITC
Date Collected 2-10-86
Date Received 2-13-86
Date Analyzed 2-19-86
QC Report No. 8020-17

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

October 8, 1986

Attn: Mark A. Guthrie

February 5, 1986 56435 35876 rjc

Four (4) soil samples:

Samples labeled	Date	Time
20-NLA2-SB1-SS3-5-ITC	2-12-86	11:00
20-NLA2-SB1-SS8-20-ITC	2-12-86	11:00
11-DAA2-SB1-SS5-10-ITC	2-12-86	15:30
11-DAA2-SB2-SS5-10-ITC	2-12-86	16:00

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 8010.

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. The results are listed on the following summary sheets.

The samples were analyzed for total petroleum hydrocarbons (TPH) by infrared spectroscopy technique (EPA procedure 418.1). The results are listed in Table I.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

Sample: AF Plant 42, IRP-II ES Job No. 56394
Date of analysis: 3-4-86

	Oil and Grease
11-DAA2-SB1-SS5-10-ITC	ND<2
11-DAA2-SB2-SS5-10-ITC	ND<2
20-NLA2-SB1-SS3-6-ITC	4
20-NLA2-SB1-SS8-20-ITC	ND<2
20-NLA2-SB1-SS8-20-ITC Dup.	ND<2
20-NLA2-SB1-SS8-20-ITC Spike	17
Spike Concentration	17

Percent Recovery: 100%

Relative Percent Difference: N/A

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-6
Field Sample No. 20-NLA2-SB1-SS3-5-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-14-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

20-NLA2-SB1-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-3
Field Sample No. 20-NLA2-SB1-SS8-20-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-14-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

20-NLA2-SB1-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-5
Field Sample No. 11-DAA2-SB1-SS5-10-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-14-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

11-DAA2-SB1-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-4
Field Sample No. 11-DAA2-SB2-SS5-10-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-14-86
QC Report No. 8010-17

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

continued on next page

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

11-DAA2-SB2-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 20-NLA2-SB1-SS8-20-ITC
Duplicates 35878-8, 35878-9
Spike 85878-10
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

QC Report No. 8020-18
Date Analyzed 2-24-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	ND< 0.005	0.051	98	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	ND< 0.005	0.057	114	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	ND< 0.005	0.054	104	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	ND< 0.005	0.066	120	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.052	ND< 0.005	0.054	104	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.064	ND< 0.005	0.055	86	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	ND< 0.005	0.054	102	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	--	ND< 0.005	---	--	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-5
Field Sample No. 20-NLA2-SB1-SS3-5-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-24-86
QC Report No. 8020-18

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-8
Field Sample No. 20-NLA2-SB1-SS8-20-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-24-86
QC Report No. 8020-18

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-9 DUP.
Field Sample No. 20-NLA2-SB1-SS8-20-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-24-86
QC Report No. 8020-18

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-10 SPIKE
Field Sample No. 20-NLA2-SB1-SS8-20-ITC
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-24-86
QC Report No. 8020-18

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.051	---	2.6	---	
Chlorobenzene	0.005	0.057	---	8.0	---	
1,2-Dichlorobenzene	0.005	0.054	---	14.6	---	
1,3-Dichlorobenzene	0.005	0.066	---	13.0	---	
1,4-Dichlorobenzene	0.005	0.054	---	12.8	---	
Ethyl benzene	0.005	0.055	---	7.4	---	
Toluene	0.005	0.054	---	4.9	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-7
Field Sample No. 11-DAA2-SB1-SS5-10-[illegible]
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-24-86
QC Report No. 8020-18

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetryl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 35878-6
Field Sample No. 11-DAA2-SB2-SS5-1
Date Collected 2-12-86
Date Received 2-14-86
Date Analyzed 2-24-86
QC Report No. 8020-18

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

Dilution Factor N/A
*Moisture

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND = This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
125 W. Huntington Dr.
P.O.Box 538
Arcadia, CA 91006

May 31, 1986

Attn: Mark Guthrie

March 20, 1986	56394	36257/rjc

Two (2) soil samples labeled: "23-BDD8-SB1-SS3-5-ITC" and "23-BDD8-SB1-SS8-20-ITC".

The samples were extracted according to soluble CAM Title 22 and analyzed by Inductively Coupled Plasma. The results are listed in the following metals summary sheets.

Byron Thomas
Group Leader

Steve Jones, Ph.D.
Technical Director

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

Report:

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 2-10-86
Date Received 2-13-86

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

QC Report No. 66700-12
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	Iron	Copper	Mananese	Zinc					
23-BDD8-SB1-SS3-5-ITC	1	23	0.31	14	0.41					
23-BDD8-SB1-SS8-20-ITC	3	22	0.59	9.7	0.35					
Date Analyzed	M D	5/29	5/29	5/29	5/29					
Analytical Method	**	P	P	P	P					

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

ENGINEERING-SCIENCE TECHNICAL DOCUMENT CONTROL

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Metals

Page: 3
Report:

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

Dilution Factor
*Moisture
Spike Source(s) Commercial standards

QC Report No. 66700-12
Laboratory Supervisor Approval:

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Iron	2	23-BDD8-SB1-SS3-5-ITC	5/29	P	N/A	27	26	4	5ug/ml	23	26.5	70	
Copper	2	23-BDD8-SB1-SS3-5-ITC	5/29	P	N/A	5.30	5.14	3	5ug/ml	0.31	5.22	98	
Manganese	2	23-BDD8-SB1-SS3-5-ITC	5/29	P	N/A	16	15	6	5ug/ml	14	15.5	75	
Zinc	2	23-BDD8-SB1-SS3-5-ITC	5/29	P	N/A	5.70	5.4	5	5ug/ml	0.41	5.55	103	

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

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park So.
Suite 590
Atlanta, GA 30329-2213

October 8, 1986

Attn: M.A. Guthrie

April 10, 1986 | 56394 | 36506/rjc

REVISED REPORT

Six (6) soil samples:

Sample Number	Date	Time
23-BDD8-SB2-SS3-5-ITC	4-8-86	15:30
23-BDD8-SB2-SS8-20-ITC	4-8-86	15:30
1-FCD2-SB1-SS5-10-ITC	4-9-86	09:30
1-FCD2-SB1-SS10-30-ITC	4-9-86	09:30
1-FCD2-SB1-SS14-50-ITC	4-9-86	09:30
1-FCD2-SB1-SS15-30-ITC	4-9-86	09:30

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.

In addition, 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. The results are listed on the following summary sheets.

The four samples with prefix "1-FCD2-SB1" were extracted by EPA Method 3550 and analyzed for Total Petroleum Hydrocarbons according to EPA Method 418.1. The results are listed in Table I, and the Quality Control data is listed in Table II.

The two samples with prefix "23-BDD8-SB2" were extracted by EPA Method 3550 and analyzed for Total Oil and Grease by EPA Method 413.2. The results are listed in Table III, and the Quality Control data is listed in Table IV.

The two samples were also extracted according to Title 22 66700 and analyzed by AAS and ICP.

William P. Fassinger
Chemist

Eric W. Lindsay
Laboratory Manager I

Table I

Sample Identification	Total Petroleum Hydrocarbons* Micrograms/gram
1-FCD2-SB1-SS5-10-ITC	ND<2
1-FCD2-SB1-SS10-30-ITC	ND<2
1-FCD2-SB1-SS14-50-ITC	ND<2
1-FCD2-SB1-SS15-30-ITC	ND<2
Method blank	ND<2

* - Date Analyzed - April 12, 1986.

Table II

Quality Control Data

Sample Identification	Total Petroleum Hydrocarbons* Micrograms/gram
1-FCD2-SB1-SS15-30-ITC	ND<2
1-FCD2-SB1-SS15-30-ITC Dup.	ND<2
Relative Percent Difference - NA	
1-FCD2-SB1-SS15-30-ITC - Spike	22.0
Spike Standard	25.9
Percent Recovery - 85%	

* - Date Analyzed - April 12, 1986

Table III

Sample Identification	Total Oil and Grease* Micrograms/gram
23-BDD8-SB2-SS3-5-ITC	ND<2
23-BDD8-SB2-SS8-20-ITC	ND<2

* - Date Analyzed - April 12, 1986

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Table IV

Quality Control Data

Date Analyzed: April 12, 1986

Sampled Identification	Total Oil and Grease Micrograms/gram
23-BDD8-SB2-SS3-5-ITC	ND<2
23-BDD8-SB2-SS3-5-ITC - Dup.	ND<2
Relative Percent Difference - NA	
23-BDD8-SB2-SS3-5-ITC - Spike	27.6
Spike Standard	25.6
Percent Recovery - 108%	

NA - Not Applicable

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

Report:

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 4-8-86
Date Received 4-9-86

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

QC Report No. 66700-8
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	As	Ba	Cd	Cr	Pb	Hg	Se	Ag	Fe	Cu	Mn	Zn
23-BDD8-SB2-SS8-20-ITC	36506-1	ND< 0.03	2.7	ND< 0.03	ND< 0.05	ND< 0.19	0.012	ND< 0.0025	ND< 0.03	8.2	0.08	8.8	0.17
23-BDD8-SB2-SS3-5-ITC	36506-2	ND< 0.03	2.6	ND< 0.03	ND< 0.06	ND< 0.19	0.012	ND< 0.0025	ND< 0.03	10	ND< 0.07	8.1	0.19
Date Analyzed	M D	4/15	4/15	4/15	4/15	4/15	4/24	4/15	4/15	4/15	4/15	4/15	4/15
Analytical Method	**	G	P	P	P	P	C	G	P	P	P	P	P

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Metals

Sample Matrix:
/_/ Water (ug/L)
/X/ Soil (mg/l)
/ / Other _____
Spike Source(s) _____

Dilution Factor _____
*Moisture _____

QC Report No. 66700-8
Laboratory Supervisor Approval:
_____

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Arsenic	36506-2D	NA	4-15	G		ND< 0.03	ND< 0.03	---	NA	NA	NA	NA	
Barium	36506-2D	NA	4-15	P		2.6	4.6	56	NA	NA	NA	NA	
Cadmium	36506-2D	NA	4-15	P		ND< 0.03	ND< 0.03	---	NA	NA	NA	NA	
Chromium	36506-2D	NA	4-15	P		ND< 0.06	ND< 0.06	---	NA	NA	NA	NA	
Lead	36506-2D	NA	4-15	P		ND< 0.19	0.21	---	NA	NA	NA	NA	
Mercury	36506-2D	NA	4-23	C		0.012	0.009	29	NA	NA	NA	NA	
Selenium	36506-2D	NA	4-15	G		ND< 0.005	ND< 0.005	---	NA	NA	NA	NA	
Silver	36506-2D	NA	4-15	P		ND< 0.03	0.19	---	NA	NA	NA	NA	
Iron	36506-2D	NA	4-15	P		10	10	0	NA	NA	NA	NA	
Copper	36506-2D	NA	4-15	P		ND< 0.07	ND< 0.07	---	NA	NA	NA	NA	
Manganese	36506-2D	NA	4-15	P		8.1	8.1	0	NA	NA	NA	NA	
Zinc	36506-2D	NA	4-15	P		0.19	0.19	0	NA	NA	NA	NA	

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

Engineering Science
Page 6

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS10-30-ITC
Lab Sample Nos.
Duplicates 36506-9, 36506-10
Spike 36506-11

QC Report No. 8010-21
Date Analyzed 4-14-86
Laboratory Supervisor Approval:

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

Dilution Factor N/A
*Moisture ____ %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Bis(2-Chloroethoxy)methane	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Bis(2-Chloroisopropyl)ether	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Bromobenzene	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Bromodichloromethane	ND< 0.010	ND< 0.010	ND< 0.010		0.050	ND< 0.010	0.050	100	
Bromoform	ND< 0.010	ND< 0.010	ND< 0.010		0.050	ND< 0.010	0.047	94	
Bromomethane	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Carbon tetrachloride	ND< 0.010	ND< 0.010	ND< 0.010		0.050	ND< 0.010	0.040	80	
Chloroacetaldehyde	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Chloral	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Chlorobenzene	ND< 0.010	ND< 0.010	ND< 0.010		0.050	ND< 0.010	0.040	80	
Chloroethane	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Chloroform	ND< 0.010	ND< 0.010	ND< 0.010		0.050	ND< 0.010	0.048	96	
1-Chlorohexane	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
2-Chloroethyl vinyl ether	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Chloromethane	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Chloromethyl methyl ether	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Chlorotoluene	ND< 0.010	ND< 0.010	ND< 0.010		--	ND< 0.010	---		
Dibromochloromethane	ND< 0.010	ND< 0.010	ND< 0.010		0.155	ND< 0.010	0.146	94	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS10-30-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.050	100	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.054	108	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.025	50	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.045	<0.010	0.045	100	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.041	82	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.026	52	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.146	94	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.095	95	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.095	95	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.045	90	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.146	94	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.042	84	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	--	<0.010	---	--	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-4
Field Sample No. 1-FCD2-SB1-SS14-50-ITC
Date Collected 4-9-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010		---		
Bis(2-Chloroethoxy)methane	0.010	ND<0.010		---		
Bis(2-chloroisopropyl)ether	0.010	ND<0.010		---		
Bromobenzene	0.010	ND<0.010		---		
Bromodichloromethane	0.010	ND<0.010		---		
Bromoform	0.010	ND<0.010		---		
Bromomethane	0.010	ND<0.010		---		
Carbon tetrachloride	0.010	ND<0.010		---		
Chloroacetaldehyde	0.010	ND<0.010		---		
Chloral	0.010	ND<0.010		---		
Chlorobenzene	0.010	ND<0.010		---		
Chloroethane	0.010	ND<0.010		---		
Chloroform	0.010	ND<0.010		---		
1-Chlorohexane	0.010	ND<0.010		---		
2-Chloroethyl vinyl ether	0.010	ND<0.010		---		
Chloromethane	0.010	ND<0.010		---		
Chloromethyl methyl ether	0.010	ND<0.010		---		
Chlorotoluene	0.010	ND<0.010		---		
Dibromochloromethane	0.010	ND<0.010		---		

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS14-SC-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	----	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	----	---	
1,1-Dichloroethane	0.010	ND<0.010	---	----	---	
1,2-Dichloroethane	0.010	ND<0.010	---	----	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	----	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	----	---	
Dichloromethane	0.010	ND<0.010	---	----	---	
1,2-Dichloropropane	0.010	ND<0.010	---	----	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	----	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	----	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	----	---	
Tetrachloroethylene	0.010	ND<0.010	---	----	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	----	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	----	---	
Trichloroethylene	0.010	ND<0.010	---	----	---	
Trichlorofluoromethane	0.010	ND<0.010	---	----	---	
Trichloropropane	0.010	ND<0.010	---	----	---	
Vinyl chloride	0.010	ND<0.010	---	----	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56384
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-5
Field Sample No. 1-FCD2-SB1-SS5-10-ITC
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

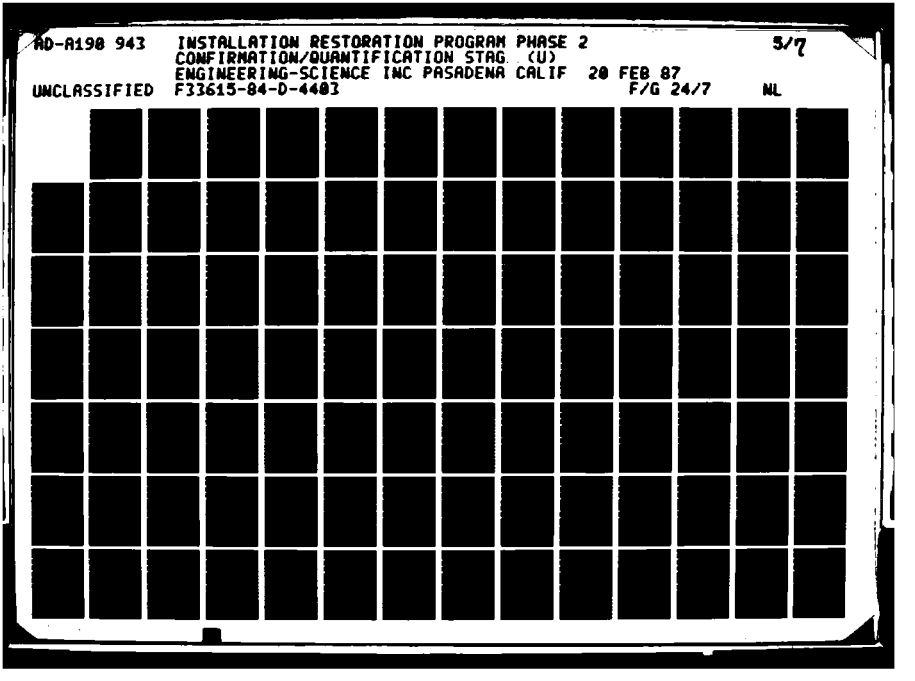
Dilution Factor
*Moisture N/A %

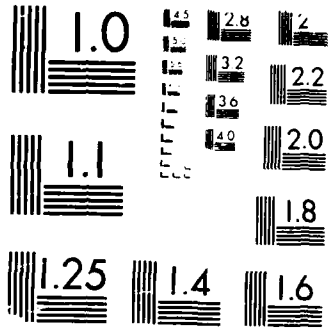
Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010		---		
Bis(2-Chloroethoxy)methane	0.010	ND<0.010		---		
Bis(2-chloroisopropyl)ether	0.010	ND<0.010		---		
Bromobenzene	0.010	ND<0.010		---		
Bromodichloromethane	0.010	ND<0.010		---		
Bromoform	0.010	ND<0.010		---		
Bromomethane	0.010	ND<0.010		---		
Carbon tetrachloride	0.010	ND<0.010		---		
Chloroacetaldehyde	0.010	ND<0.010		---		
Chloral	0.010	ND<0.010		---		
Chlorobenzene	0.010	ND<0.010		---		
Chloroethane	0.010	ND<0.010		---		
Chloroform	0.010	ND<0.010		---		
1-Chlorohexane	0.010	ND<0.010				
2-Chloroethyl vinyl ether	0.010	ND<0.010				
Chloromethane	0.010	ND<0.010				
Chloromethyl methyl ether	0.010	ND<0.010				
Chlorotoluene	0.010	ND<0.010				
Dibromochloromethane	0.010	ND<0.010				

Continued

AD-A190 943 INSTALLATION RESTORATION PROGRAM PHASE 2 5/7
CONFIRMATION/QUANTIFICATION STAG (U)
ENGINEERING-SCIENCE INC PASADENA CALIF 20 FEB 87
UNCLASSIFIED F33615-84-D-4401 F/G 24/7 NL





MICROCOPY RESOLUTION TEST CHART

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 12

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-6
Field Sample No. 23-BDD8-SB2-SS8-20-ITC
Date Collected 4-08-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010		---		
Bis(2-Chloroethoxy)methane	0.010	ND<0.010		---		
Bis(2-chloroisopropyl)ether	0.010	ND<0.010		---		
Bromobenzene	0.010	ND<0.010		---		
Bromodichloromethane	0.010	ND<0.010		---		
Bromoform	0.010	ND<0.010		---		
Bromomethane	0.010	ND<0.010		---		
Carbon tetrachloride	0.010	ND<0.010		---		
Chloroacetaldehyde	0.010	ND<0.010		---		
Chloral	0.010	ND<0.010		---		
Chlorobenzene	0.010	ND<0.010		---		
Chloroethane	0.010	ND<0.010		---		
Chloroform	0.010	ND<0.010		---		
1-Chlorohexane	0.010	ND<0.010		---		
2-Chloroethyl vinyl ether	0.010	ND<0.010		---		
Chloromethane	0.010	ND<0.010		---		
Chloromethyl methyl ether	0.010	ND<0.010		---		
Chlorotoluene	0.010	ND<0.010		---		
Dibromochloromethane	0.010	ND<0.010		---		

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

23-BDD8-SB2-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-7
Field Sample No. 1-FCD2-SB1-SS15-30-ITC
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010		---		
Bis(2-Chloroethoxy)methane	0.010	ND<0.010		---		
Bis(2-chloroisopropyl)ether	0.010	ND<0.010		---		
Bromobenzene	0.010	ND<0.010		---		
Bromodichloromethane	0.010	ND<0.010		---		
Bromoform	0.010	ND<0.010		---		
Bromomethane	0.010	ND<0.010		---		
Carbon tetrachloride	0.010	ND<0.010		---		
Chloroacetaldehyde	0.010	ND<0.010		---		
Chloral	0.010	ND<0.010		---		
Chlorobenzene	0.010	ND<0.010		---		
Chloroethane	0.010	ND<0.010		---		
Chloroform	0.010	ND<0.010		---		
1-Chlorohexane	0.010	ND<0.010		---		
2-Chloroethyl vinyl ether	0.010	ND<0.010		---		
Chloromethane	0.010	ND<0.010		---		
Chloromethyl methyl ether	0.010	ND<0.010		---		
Chlorotoluene	0.010	ND<0.010		---		
Dibromochloromethane	0.010	ND<0.010		---		

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS15-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-8
Field Sample No. 23-BDD8-SB2-SS3-5-ITC
Date Collected 4-08-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

23-BDD8-SB2-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 18

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-9
Field Sample No. 1-FCD2-SB1-SS10-30-ITC
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010		---		
Bis(2-Chloroethoxy)methane	0.010	ND<0.010		---		
Bis(2-chloroisopropyl)ether	0.010	ND<0.010		---		
Bromobenzene	0.010	ND<0.010		---		
Bromodichloromethane	0.010	ND<0.010		---		
Bromoform	0.010	ND<0.010		---		
Bromomethane	0.010	ND<0.010		---		
Carbon tetrachloride	0.010	ND<0.010		---		
Chloroacetaldehyde	0.010	ND<0.010		---		
Chloral	0.010	ND<0.010		---		
Chlorobenzene	0.010	ND<0.010		---		
Chloroethane	0.010	ND<0.010		---		
Chloroform	0.010	ND<0.010		---		
1-Chlorohexane	0.010	ND<0.010		---		
2-Chloroethyl vinyl ether	0.010	ND<0.010		---		
Chloromethane	0.010	ND<0.010		---		
Chloromethyl methyl ether	0.010	ND<0.010		---		
Chlorotoluene	0.010	ND<0.010		---		
Dibromochloromethane	0.010	ND<0.010		---		

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-10
Field Sample No. 1-FCD2-SB1-SS10-30-ITC Dup
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010		---		
Bis(2-Chloroethoxy)methane	0.010	ND<0.010		---		
Bis(2-chloroisopropyl)ether	0.010	ND<0.010		---		
Bromobenzene	0.010	ND<0.010		---		
Bromodichloromethane	0.010	ND<0.010		---		
Bromoform	0.010	ND<0.010		---		
Bromomethane	0.010	ND<0.010		---		
Carbon tetrachloride	0.010	ND<0.010		---		
Chloroacetaldehyde	0.010	ND<0.010		---		
Chloral	0.010	ND<0.010		---		
Chlorobenzene	0.010	ND<0.010		---		
Chloroethane	0.010	ND<0.010		---		
Chloroform	0.010	ND<0.010		---		
1-Chlorohexane	0.010	ND<0.010		---		
2-Chloroethyl vinyl ether	0.010	ND<0.010		---		
Chloromethane	0.010	ND<0.010		---		
Chloromethyl methyl ether	0.010	ND<0.010		---		
Chlorotoluene	0.010	ND<0.010		---		
Dibromochloromethane	0.010	ND<0.010		---		

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS10-30-ITC Dup

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-11
Field Sample No. 1-FCD2-SB1-SS10-30-ITC Spike
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.005	---		---		
Bis(2-Chloroethoxy)methane	0.005	---		---		
Bis(2-chloroisopropyl)ether	0.005	---		---		
Bromobenzene	0.005	---		---		
Bromodichloromethane	0.005	.050		14.8		
Bromoform	0.005	.047		20.1		
Bromomethane	0.005	---		---		
Carbon tetrachloride	0.005	.040		14.40		
Chloroacetaldehyde	0.005	---		---		
Chloral	0.005	---		---		
Chlorobenzene	0.005	.040		24.9		
Chloroethane	0.005	---		---		
Chloroform	0.005	.048		12.0		
1-Chlorohexane	0.005	---		---		
2-Chloroethyl vinyl ether	0.005	---		---		
Chloromethane	0.005	---		---		
Chloromethyl methyl ether	0.005	---		---		
Chlorotoluene	0.005	---		---		
Dibromochloromethane	0.005	.146		17.5		

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB1-SS10-30-ITC Spik

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.005	---	---	---	---	
Bromodichloromethane	0.005	---	---	---	---	
1,1-Dichloroethane	0.005	.050	---	10.9	---	
1,2-Dichloroethane	0.005	.054	---	12.8	---	
1,1-Dichloroethylene	0.005	.025	---	9.2	---	
trans-1,2-Dichloroethylene	0.005	.045	---	11.6	---	
Dichloromethane	0.005	.041	---	7.3	---	
1,2-Dichloropropane	0.005	.026	---	16.1	---	
cis-1,3-Dichloropropylene	0.005	.146	---	16.3	---	
1,1,2,2-Tetrachloroethane	0.005	.095	---	22.3	---	
1,1,1,2-Tetrachloroethane	0.005	---	---	---	---	
Tetrachloroethylene	0.005	.095	---	22.3	---	
1,1,1-Trichloroethane	0.005	.045	---	13.9	---	
1,1,2-Trichloroethane	0.005	.146	---	16.3	---	
Trichloroethylene	0.005	.042	---	16.8	---	
Trichlorofluoromethane	0.005	---	---	---	---	
1,2,3-Trichloropropane	0.005	---	---	---	---	
Vinyl chloride	0.005	---	---	---	---	

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

1-FCD2-SB1-SS10-30-ITC
Lab Sample Nos.

Duplicates 36506-11,-12

Spike 36506-13

Sample Matrix:

/ / Water (ug/L)

/X/ Soil (ug/g)

/ / Other

Spike Source

QC Report No. 8020-19

Date Analyzed 4-14-86

Laboratory Supervisor Approval:

Dilution Factor N/A

*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	ND< 0.005	0.050	100	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	ND< 0.005	0.048	87	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	ND< 0.005	0.056	102	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	ND< 0.005	0.054	98	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	ND< 0.005	0.054	98	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.055	ND< 0.005	0.035	65	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.060	ND< 0.005	0.057	95	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	---	ND< 0.005	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-6
Field Sample No. 1-FCD2-SB1-SS14-50-I
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-7
Field Sample No. 1-FCD2-SB1-SS5-10-ITC
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
Sw Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-8
Field Sample No. 23-BDD8-SB2-SS8-20-[illegible]
Date Collected 4-08-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-9
Field Sample No. 1-FCD2-SB1-SS15-30-ITC
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-10
Field Sample No. 23-BDD8-SB2-SS3-5-ITC
Date Collected 4-08-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-11
Field Sample No. 1-FCD2-SB1-SS10-30-[illegible]
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N.A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-12
Field Sample No. 1-FCD2-SB1-SS10-30-ITC Dup
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36506-12
Field Sample No. 1-FCD2-SB1-SS10-30-ITC Spike
Date Collected 4-09-86
Date Received 4-10-86
Date Analyzed 4-14-86
QC Report No. 8020-19

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.050	---	2.6	---	
Chlorobenzene	0.005	0.048	---	7.9	---	
1,2-Dichlorobenzene	0.005	0.056	---	14.4	---	
1,3-Dichlorobenzene	0.005	0.054	---	12.9	---	
1,4-Dichlorobenzene	0.005	0.054	---	12.7	---	
Ethyl benzene	0.005	0.036	---	7.4	---	
Toluene	0.005	0.057	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park So., Ste. 590
Atlanta, GA 30329-2213

October 8, 1986

Attn: M.A. Guthrie

April 11, 1986 | 56394 | 36515

REVISED REPORT

Five (5) soil samples

Sample Number	Date	Time
1-FCD2-SB1-SS19-75-ITC	4-09-86	0930
1-FCD2-SB2-SS19-75-ITC	4-10-86	0830
1-FCD2-SB2-SS5-10-ITC	4-10-86	0830
1-FCD2-SB2-SS10-30-ITC	4-10-86	0830
1-FCD2-SB2-SS14-50-ITC	4-10-86	0830

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.

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. The results are listed on the following summary sheets.

In addition the samples were analyzed for Total Petroleum Hydrocarbons (TPH) by infrared spectroscopy technique (EPA Method 418.1, Extraction Method 3550). The results are listed in Table I.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

Sample: AF Plant 42 IRP-II, ES Job No. 56394
Date of Analysis: 4-15-86

	Total Petroleum Hydrocarbons (ug/g)
1-FCD2-SB1-SS19-75-ITC	ND<2
1-FCD2-SB2-SS19-75-ITC	ND<2
1-FCD2-SB2-SS5-10-ITC	6800
1-FCD2-SB2-SS10-30-ITC	1120
1-FCD2-SB2-SS14-50-ITC	ND<2
1-FCD2-SB2-SS19-75-ITC Dup.	ND<2
1-FCD2-SB1-SS19-75-ITC Spike	28
Spike Concentration	31

Percent Recovery: 90%

Relative Percent Difference: N/A

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

Engineering Science
Page 3

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-13
Field Sample No. 1-FCD2-SB1-SS19-75-ITC
Date Collected 4-9-86
Date Received 4-11-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
Sw Method 8010

1-FCDT-SB1-SS19-75-110

	Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	
[illegible]	0.010	ND<0.010	---	---	---	

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
Page 5

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-12
Field Sample No. 1-FCD2-SB2-SS19-75-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB2-SS19-75-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 7

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-14
Field Sample No. 1-FCD2-SB2-SS5-10-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-14-86
QC Report No. 8010-21

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB2-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroetnane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroetnane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroetnane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 9

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-4
Field Sample No. 1-FCD2-SB2-SS10-30-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No. 8010-21

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB2-SS10-30-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-5
Field Sample No. 1-FCD2-SB2-SS14-50-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-15-86
QC Report No. 8010-21

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

Dilution Factor NA
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB2-SS14-[illegible]

Compound	Concentration			Retention Time		[illegible]
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 1-FCD2-SB2-SS14-50-ITC
Duplicates 36515-6, 36515-7
Spike 36515-6
Sample Matrix:
__ Water (ug/L)
_X_ Soil (ug/Kg)
__ Other _____
Spike Source _____

QC Report No. 8020-20
Date Analyzed 4-16-86
Laboratory Supervisor Approval: _____
Dilution Factor NA
*Moisture _____ %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	<0.005	ND< 0.005	ND< 0.005	---	0.050	ND< 0.005	0.038	76	
Chlorobenzene	<0.005	ND< 0.005	ND< 0.005	---	0.053	ND< 0.005	0.036	68	
1,2-Dichlorobenzene	<0.005	ND< 0.005	ND< 0.005	---	0.054	ND< 0.005	0.037	69	
1,3-Dichlorobenzene	<0.005	ND< 0.005	ND< 0.005	---	0.056	ND< 0.005	0.038	68	
1,4-Dichlorobenzene	<0.005	ND< 0.005	ND< 0.005	---	0.053	ND< 0.005	0.037	70	
Ethyl benzene	<0.005	ND< 0.005	ND< 0.005	---	0.054	ND< 0.005	0.037	69	
Toluene	<0.005	ND< 0.005	ND< 0.005	---	0.059	ND< 0.005	0.039	66	
Xylenes (Dimethyl benzene)	<0.005	ND< 0.005	ND< 0.005	---	---	ND< 0.005	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-5
Field Sample No. 1-FCD2-SB1-SS19-75-ITC
Date Collected 4-9-86
Date Received 4-10-86
Date Analyzed 4-16-86
QC Report No. 8020-20

Sample Matrix:
___ Water (ug L)
_X_ Soil (ug g)
___ Other

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-4
Field Sample No. 1-FCD2-SB2-SS19-75-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-16-86
QC Report No. 8020-20

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. ç36515-10, 36515-12
Field Sample No. 1-FC02-SB2-SS5-10-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-16-86
QC Report No. 8020-20

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

Dilution Factor çConc; 1:500
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	0.047	---	7.3	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ç - Several sample concentrations were analyzed due to matrix effects

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-9
Field Sample No. 1-FCD2-SB2-SS10-30-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-16-86
QC Report No. 8020-20

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

Dilution Factor 8020-20
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Page 1

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

EE Job No.: 56394
Client:
Project: AF Plant 42 IRP-II
Client No.:
Laboratory Supervisor Approval:

Lab Sample No. 36515-6
Field Sample No. 1-FCD2-SB2-SS14-50-II0
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-16-86
QC Report No. 8020-20

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

Dilution Factor 8020-20
*Moisture N/A %

Spike Source:

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-7 Dup.
Field Sample No. 1-FCD2-SB2-SS14-5C-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-16-86
QC Report No. 8020-20

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

Dilution Factor 8020-20
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36515-8 Spike
Field Sample No. 1-FCD2-SB2-SS14-50-ITC
Date Collected 4-10-86
Date Received 4-11-86
Date Analyzed 4-16-86
QC Report No. 8020-20

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

Dilution Factor 8020-20
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.038	---	2.6	---	
Chlorobenzene	0.005	0.036	---	7.9	---	
1,2-Dichlorobenzene	0.005	0.037	---	14.4	---	
1,3-Dichlorobenzene	0.005	0.038	---	12.9	---	
1,4-Dichlorobenzene	0.005	0.037	---	12.7	---	
Ethyl benzene	0.005	0.037	---	7.4	---	
Toluene	0.005	0.039	---	4.9	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park S., Suite 590
Atlanta, GA 30329-2213

October 8, 1986

Attn: M.A. Guthrie

April 15, 1986 | 56394 | 36546/rjc

REVISED REPORT

Eight (8) soil samples.

Sample Number	Date	Time
1-FCD2-SB3-SS5-10-ITC	4-11-86	1045
1-FCD2-SB3-SS10-30-ITC	4-11-86	1045
1-FCD2-SB3-SS14-50-ITC	4-11-86	1045
1-FCD2-SB4-SS2-2.5-ITC	4-12-86	0900
1-FCD2-SB4-SS5-10-ITC	4-12-86	0900
1-FCD2-SB4-SS10-30-ITC	4-12-86	0900
1-FCD2-SB5-SS2-2.5-ITC	4-12-86	1030
1-FCD2-SB5-SS5-10-ITC	4-12-86	1030

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.

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. The results are listed on the following summary sheets.

The samples were analyzed for Total Petroleum Hydrocarbons (TPH) by infrared spectroscopy technique (EPA procedure 418.1). The results are listed in Table I.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Table I

SAMPLE: ES Job No. 56394, AF Plant 42, IRP-II
DATE OF ANALYSIS: 4-25-86

Sample Identification	Total Petroleum Hydrocarbons (ug/g)
1-FCD2-SB5-SS5-10-ITC	ND<2
1-FCD2-SB5-SS2-2.5-ITC	190
1-FCD2-SB4-SS5-10-ITC	3
1-FCD2-SB4-SS10-30-ITC	ND<2
1-FCD2-SB4-SS2-2.5-ITC	450
1-FCD2-SB3-SS10-30-ITC	ND<2
1-FCD2-SB3-SS5-10-ITC	7100
1-FCD2-SB3-SS14-50-ITC	3
1-FCD2-SB3-SS14-50-ITC Duplicate	ND<2
1-FCD2-SB3-SS14-50-ITC Spike	21
Spike Concentration	22

Relative Percent Difference - N/A

Percent Recovery - 95.5%

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 1-FCD2-SB3-SS10-30-ITC
Duplicates 36546-9, 36546-10
Spike 36546-11
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other
Spike Source

QC Report No. 8010-24
Date Analyzed 4-21-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bis(2-Chloroisopropyl)ether	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bromobenzene	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.053	106	
Bromoform	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.041	82	
Bromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.055	110	
Chloroacetaldehyde	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloral	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chlorobenzene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.051	102	
Chloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloroform	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	104	
1-Chlorohexane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chlorotoluene	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.158	102	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB3-SS10-30-I

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	104	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.051	102	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.026	52	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	104	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.036	72	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.055	110	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.158	102	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.098	98	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.098	98	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.080	160	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.158	102	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.050	100	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-9
Field Sample No. 1-FCD2-SB3-SS5-10-ITC
Date Collected 4-11-86
Date Received 4-15-86
Date Analyzed 4-23-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB3-SS3-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-9
Field Sample No 1-FCD2-SB3-SS10-30-IT0
Date Collected 4-11-86
Date Received 4-15-86
Date Analyzed 4-21-86
QC Report No. 8010-24

Sample Matrix:
___ Water (ug/L)
_X_ Soil (ug/g)
___ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromochloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB3-SS10-80-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-10 Duplicate
Field Sample No. 1-FCD2-SB3-SS10-30-ITC
Date Collected 4-11-86
Date Received 4-15-86
Date Analyzed 4-21-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Duplicate
1-FCD2-SB3-SS10-30-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-11 Spike
Field Sample No. 1-FCD2-SB3-SS10-30-I
Date Collected 4-11-86
Date Received 4-15-86
Date Analyzed 4-21-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	---	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	---	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	---	---	---	---	
Bromobenzene	0.010	---	---	---	---	
Bromodichloromethane	0.010	0.053	---	14.6	---	
Bromoform	0.010	0.041	---	19.9	---	
Bromomethane	0.010	---	---	---	---	
Carbon tetrachloride	0.010	0.055	---	14.2	---	
Chloroacetaldehyde	0.010	---	---	---	---	
Chloral	0.010	---	---	---	---	
Chlorobenzene	0.010	0.051	---	24.7	---	
Chloroethane	0.010	---	---	---	---	
Chloroform	0.010	0.052	---	11.8	---	
1-Chlorohexane	0.010	---	---	---	---	
2-Chloroethyl vinyl ether	0.010	---	---	---	---	
Chloromethane	0.010	---	---	---	---	
Chloromethyl methyl ether	0.010	---	---	---	---	
Chlorotoluene	0.010	---	---	---	---	
Dibromochloromethane	0.010	0.158	---	17.3	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Spike
1-FCD2-SB3-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	---	---	---	---	
Dichlorodifluoromethane	0.010	---	---	---	---	
1,1-Dichloroethane	0.010	0.052	---	10.7	---	
1,2-Dichloroethane	0.010	0.051	---	12.6	---	
1,1-Dichloroethylene	0.010	0.026	---	9.7	---	
trans-1,2-dichloroethylene	0.010	0.052	---	11.5	---	
Dichloromethane	0.010	0.036	---	7.1	---	
1,2-Dichloropropane	0.010	0.055	---	16.0	---	
1,3-Dichloropropylene	0.010	0.158	---	16.2	---	
1,1,2,2-Tetrachloroethane	0.010	0.098	---	22.2	---	
1,1,1,2-Tetrachloroethane	0.010	---	---	---	---	
Tetrachloroethylene	0.010	0.098	---	22.2	---	
1,1,1-Trichloroethane	0.010	0.080	---	13.8	---	
1,1,2-Trichloroethane	0.010	0.159	---	17.3	---	
Trichloroethylene	0.010	0.050	---	16.8	---	
Trichlorofluoromethane	0.010	---	---	---	---	
Trichloropropane	0.010	---	---	---	---	
Vinyl chloride	0.010	---	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-7
Field Sample No. 1-FCD2-SB3-SS14-50-ITC
Date Collected 4-11-86
Date Received 4-15-86
Date Analyzed 4-21-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB3-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 15

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-6
Field Sample No. 1-FCD2-SB4-SS2-2.5-ITC
Date Collected 4-12-86
Date Received 4-15-86
Date Analyzed 4-21-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB4-SS2-2.5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-8
Field Sample No. 1-FCD2-SB4-SS5-10-ITC
Date Collected 4-12-86
Date Received 4-15-86
Date Analyzed 4-23-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB4-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.025	---	13.3	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-8
Field Sample No. 1-FCD2-SB4-SS10-3C-ITC
Date Collected 4-12-86
Date Received 4-15-86
Date Analyzed 4-21-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB4-SS10-3[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-7
Field Sample No. 1-FCD2-SB5-SS2-2.5-ITC
Date Collected 4-12-86
Date Received 4-15-86
Date Analyzed 4-23-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropoyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB5-SS2-2.5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.034	---	13.3	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Metnod 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-6
Field Sample No. 1-FCD2-SB5-SS5-10-ITC
Date Collected 4-12-86
Date Received 4-15-86
Date Analyzed 4-23-86
QC Report No. 8010-24

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB5-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
[illegible]methane	0.010	ND<0.010	---	---	---	
[illegible]trichlorofluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	0.025	---	13.3	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Vinyl acetate	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND = This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 1-FCD2-SB5-SS5-10-ITC
Duplicates 36546-8, 36546-18
Spike 36546-19
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

QC Report No. 8020-22
Date Analyzed 5-14-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source 10 ppb 602 std.

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	<0.005	0.035	70	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.038	72	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.038	70	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	<0.005	0.040	71	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.039	74	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.039	72	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.058	<0.005	0.037	64	
Xylenes (Dimethyl benzene)	ND< 0.005	---	---	---	---	<0.005	---	---	

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
Page 26

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-7
Field Sample No. 1-FCD2-SB3-SS5-10-ITC
Date Collected 4-11-86
Date Received 4-14-86
Date Analyzed ç 4-25-86, 5-1-86
QC Report No. 8020-22

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

Dilution Factor ç Conc., 1:100
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	5.0	ND<5.0	---	---	---	
1,3-Dichlorobenzene	5.0	ND<5.0	---	---	---	
1,4-Dichlorobenzene	5.0	ND<5.0	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ç - Dilutions were made in order to quantitate and due to matrix effects.

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-9
Field Sample No. 1-FCD2-SB3-SS10-30-ITC
Date Collected 4-11-86
Date Received 4-14-86
Date Analyzed ç 4-25-86, 5-1-86
QC Report No. 8020-22

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

Dilution Factor ç Conc., 1:100
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.5	ND<0.5	---	---	---	
1,3-Dichlorobenzene (d)	0.5	ND<0.5	---	---	---	
1,4-Dichlorobenzene (d)	0.5	ND<0.5	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

(d) - At this concentration the components co-elute. The amount reported is total.

ç - Dilutions were made in order to quantitate and due to matrix effects.

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-8
Field Sample No. 1-FCD2-SB3-SS14-50-ITC
Date Collected 4-11-86
Date Received 4-14-86
Date Analyzed 4-25-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

(d) - Compounds co-elute at this concentration. Amount reported is total.

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-6, 36546-8
Field Sample No. 1-FCD2-SB4-SS2-2.5-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed ç 4-25-86, 5-1-86
QC Report No. 8020-22

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

Dilution Factor ç Conc., 1:500
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene ç	0.50	ND<~~0.005~~ 0.5	---	---	---	
1,3-Dichlorobenzene ç	0.50	ND<~~0.005~~ 0.5	---	---	---	
1,4-Dichlorobenzene ç	0.50	ND<~~0.005~~ 0.5	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetnyl benzene)	0.005	ND<0.005	---	---	---	

ç - Dilutions were made due to matrix effects.

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-7
Field Sample No. 1-FCD2-SB4-SS5-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-28-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Page 31

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-5
Field Sample No. 1-FCD2-SB4-SS10-30-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-25-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-7
Field Sample No. 1-FCD2-SB5-SS2-2.5-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed ç 4-28-86, 5-1-86
QC Report No. 8020-22

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

Dilution Factor ç Conc., 1:5000
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	5.0	ND<5.0	---	---	---	
1,3-Dichlorobenzene	5.0	ND<5.0	---	---	---	
1,4-Dichlorobenzene	5.0	ND<5.0	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ç - Dilutions of sample were due to matrix effects.

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-8
Field Sample No. 1-FCD2-SB5-SS5-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-28-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-18 Dup.
Field Sample No. 1-FCD2-SB5-SS5-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 5-14-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36546-19 Spike
Field Sample No. 1-FCD2-SB5-SS5-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 5-14-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.035	---	2.5	---	
Chlorobenzene	0.005	0.038	---	7.8	---	
1,2-Dichlorobenzene	0.005	0.038	---	14.3	---	
1,3-Dichlorobenzene	0.005	0.040	---	12.8	---	
1,4-Dichlorobenzene	0.005	0.039	---	12.7	---	
Ethyl benzene	0.005	0.039	---	7.3	---	
Toluene	0.005	0.037	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park S., Suite 590
Atlanta, GA 30329-2213

October 8, 1986

Attn: M.A. Guthrie

April 14, 1986 56394 36555/rjc

REVISED REPORT

Nine (9) soil samples.

Sample Identification	Date	Time
1-FCD2-SB5-SS10-30-ITC	4-12-86	1030
1-FCD2-SB5-SS15-10-ITC	4-12-86	1030
1-FCD2-SB6-SS3-5-ITC	4-12-86	1230
1-FCD2-SB6-SS8-20-ITC	4-12-86	1230
1-FCD2-SB7-SS5-10-ITC	4-14-86	0900
1-FCD2-SB7-SS10-30-ITC	4-14-86	0900
1-FCD2-SB7-SS14-50-ITC	4-14-86	0900
1-FCD2-SB7-SS15-30-ITC	4-14-86	0900
1-FCD2-SB7-SS18-70-ITC	4-14-86	0900

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.

In addition, 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. The results are listed on the following summary sheets.

The samples were also extracted according to EPA Method 3550 and analyzed for Total Petroleum Hydrocarbons (TPH) according to EPA Method 418.1. The sample results are listed in Table I.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Engineering Science
M.A. Guthrie

April 30, 1986
JN: 36555 - Page 2

Table I

Sample Identifications	Total Petroleum Hydrocarbons Micrograms/gram
1-FCD2-SB6-SS3-5-ITC	4800
1-FCD2-SB7-SS18-70-ITC	ND<2
1-FCD2-SB7-SS5-10-ITC	8200
1-FCD2-SB5-SS15-10-ITC	ND<2
1-FCD2-SB7-SS10-30-ITC	240
1-FCD2-SB7-SS14-50-ITC	2000
1-FCD2-SB5-SS10-30-ITC	2
1-FCD2-SB7-SS15-30-ITC	220
1-FCD2-SB6-SS8-20-ITC	ND<2
1-FCD2-SB6-SS8-20-ITC Duplicate	ND<2
1-FCD2-SB6-SS8-20-ITC Spike	31
Spike Concentration	33

Percent Recovery - 94%

Relative Percent Difference - N/A

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 1-FCD2-SB7-SS18-70-ITC
Duplicates 36555-14, 36555-15
Spike 36555-16
Sample Matrix:
/ / Water (ug/L)
/X / Soil (ug/g)
/ / Other
Spike Source

QC Report No. 8010-26
Date Analyzed 4-24-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture --- %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bis(2-Chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.054	108	
Bromoform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.047	94	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.051	102	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.044	88	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	---	0.050	<0.010	0.052	104	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Chlorotoluene	ND<0.010	ND<0.010	ND<0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.155	<0.010	0.160	103	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB7-SS18-70-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.051	102	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.053	106	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.044	88	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.054	108	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.047	94	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.049	98	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	ND< 0.010	0.160	103	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	ND< 0.010	0.095	95	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	ND< 0.010	0.095	95	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.042	84	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	ND< 0.010	0.160	103	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.052	104	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-6
Field Sample No. 1-FCD2-SB5-SS10-30-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB5-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.018	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 7

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-7
Field Sample No. 1-FCD2-SB5-SS15-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB5-SS15-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroetnane	0.010	ND<0.010	---	---	---	
1,2-Dichloroetnane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroetnylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.024	---	13.4	---	
1,1,2-Trichloroetnane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-8
Field Sample No. 1-FCD2-SB6-SS3-5-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB6-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.027	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-9
Field Sample No. 1-FCD2-SB6-SS8-30-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloroethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB6-SS8-~~30~~ 20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-10
Field Sample No. 1-FCD2-SB7-SS5-10-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB7-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-11
Field Sample No. 1-FCD2-SB7-SS10-30-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

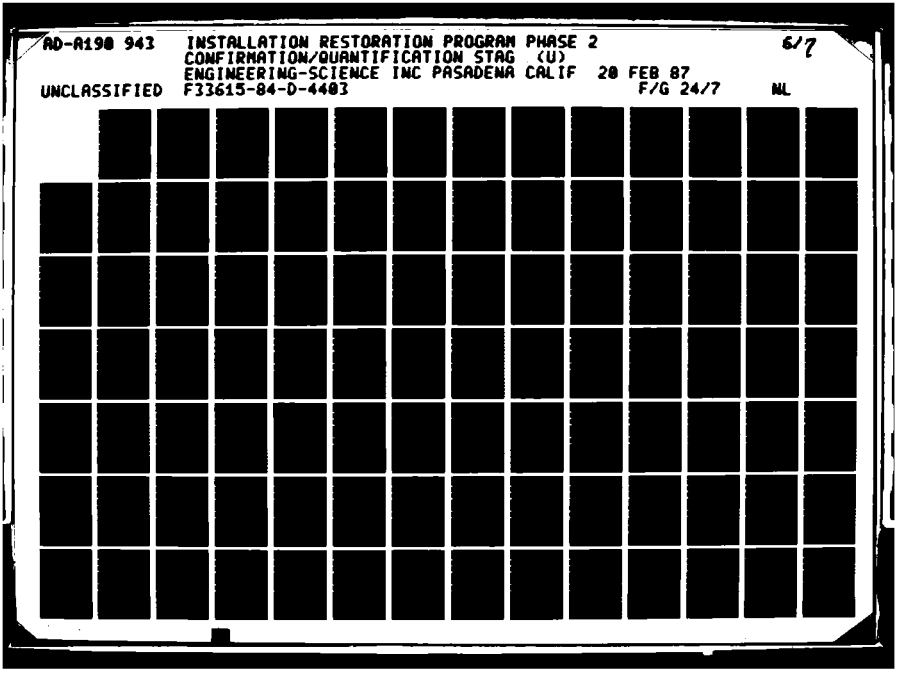
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other

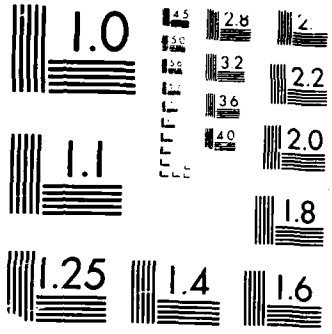
Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued


AD-A190 943 INSTALLATION RESTORATION PROGRAM PHASE 2 6/7
CONFIRMATION/QUANTIFICATION STAG (U)
ENGINEERING-SCIENCE INC PASADENA CALIF 20 FEB 87
UNCLASSIFIED F33615-84-D-4403 F/G 24/7 NL



MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS 1963-A

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB7-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-12
Field Sample No. 1-FCD2-SB7-SS14-50-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB7-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.013	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 19

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-13
Field Sample No. 1-FCD2-SB7-SS15-30-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB7-SS15-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 21

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-14
Field Sample No. 1-FCD2-SB7-SS18-70-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB7-SS18-70-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dipromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-15 Duplicate
Field Sample No. 1-FCD2-SB7-SS18-70-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Duplicate
1-FCD2-SB7-SS18-70-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroetnylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 25

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-16 Spike
Field Sample No. 1-FCD2-SB7-SS18-70-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-24-86
QC Report No. 8010-26

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.054	---	14.2	---	
Bromoform	0.010	0.047	---	19.4	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.051	---	13.8	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.044	---	24.2	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.052	---	11.4	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.160	---	16.9	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Spike
1-FCD2-SB7-SS18-70-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.051	---	10.3	---	
1,2-Dichloroethane	0.010	0.053	---	12.2	---	
1,1-Dichloroethylene	0.010	0.044	---	9.2	---	
trans-1,2-dichloroethylene	0.010	0.054	---	11.1	---	
Dichloromethane	0.010	0.047	---	6.6	---	
1,2-Dichloropropane	0.010	0.049	---	15.5	---	
1,3-Dichloropropylene	0.010	0.160	---	16.9	---	
1,1,2,2-Tetrachloroethane	0.010	0.095	---	21.8	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.095	---	21.8	---	
1,1,1-Trichloroethane	0.010	0.042	---	13.4	---	
1,1,2-Trichloroethane	0.010	0.160	---	16.9	---	
Trichloroethylene	0.010	0.052	---	16.4	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Metnod 8020

Lab Sample Nos. 1-FCD2-SB5-SS15-10-ITC
Duplicates 36555-7, 36555-9
Spike 36555-10
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ Other
Spike Source 10.0 ppb 602 Std.

QC Report No. 8020-21
Date Analyzed 4-22-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.05	ND< 0.005	0.04	80	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.05	ND< 0.005	0.04	80	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.05	ND< 0.005	0.04	80	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.05	ND< 0.005	0.05	100 ~~83~~	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.05	ND< 0.005	0.04	80	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.05	ND< 0.005	0.04	80	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.05	ND< 0.005	0.04	80 ~~65~~	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	---	ND< 0.005	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-9
Field Sample No. 1-FCD2-SB5-SS10-30-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-17-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	0.046	---	14.50	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-7
Field Sample No. 1-FCD2-SB5-SS15-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-17-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-8
Field Sample No. 1-FCD2-SB6-SS3-5-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-17-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-7
Field Sample No. 1-FCD2-SB6-SS8-20-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-18-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-9
Field Sample No. 1-FCD2-SB7-SS5-10-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-18-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-8
Field Sample No. 1-FCD2-SB7-SS10-30-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-18-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-6
Field Sample No. 1-FCD2-SB7-SS14-50-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-22-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	0.024	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-7
Field Sample No. 1-FCD2-SB7-SS15-30-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-22-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-8
Field Sample No. 1-FCD2-SB7-SS18-70-ITC
Date Collected 4-14-86
Date Received 4-14-86
Date Analyzed 4-22-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-9 Duplicate
Field Sample No. 1-FCD2-SB5-SS15-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-22-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36555-10 Spike
Field Sample No. 1-FCD2-SB5-SS15-10-ITC
Date Collected 4-12-86
Date Received 4-14-86
Date Analyzed 4-22-86
QC Report No. 8020-21

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.040	---	2.6	---	
Chlorobenzene	0.005	0.040	---	7.9	---	
1,2-Dichlorobenzene	0.005	0.040	---	14.4	---	
1,3-Dichlorobenzene	0.005	0.05	---	12.9	---	
1,4-Dichlorobenzene	0.005	0.040	---	12.71	---	
Ethyl benzene	0.005	0.040	---	7.3	---	
Toluene	0.005	0.040	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

[illegible] • [illegible] California 90[illegible] • 213-[illegible] 714-523-9200

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park St., Suite 590
Atlanta, GA 30929-2213

Date: October 9, 1986

Attn: M.A. Guthrie

April 17, 1986	56394	36574/rjc

REVISTED REPORT

Eight (8) samples labeled:

Sample Number	Date	Time
1-FCD2-SB8-SS5-10-ITC	4-15-86	0930
1-FCD2-SB8-SS10-30-ITC	4-15-86	0930
1-FCD2-SB8-SS14-50-ITC	4-15-86	0930
1-FCD2-SB9-SS5-10-ITC	4-16-86	0830
1-FCD2-SB9-SS8-20-ITC	4-16-86	0830
1-FCD2-SB9-SS11-35-ITC	4-16-86	0830
1-FCD2-SB9-SS14-50-ITC	4-16-86	0830
1-FCD2-SB9-SS18-70-ITC	4-16-86	0830

The samples were analyzed for total petroleum hydrocarbons (TPH) by infrared spectroscopy technique (EPA procedure 418.1). The results are listed in table I.

The samples were also 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. The results are listed on the Halogenated Volatile Organics Summary sheets.

Also, the samples were 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. The results are listed on the Aromatic Volatile Organics Summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

Date of Analysis: 4-29-86

Table I

Total Petroleum Hydrocarbons

Sample Identification	Parts per million
1-FCD2-SB8-SS5-10-ITC	3200
1-FCD2-SB8-SS10-30-ITC	8
1-FCD2-SB8-SS14-50-ITC	3
1-FCD2-SB9-SS5-10-ITC	6
1-FCD2-SB9-SS8-20-ITC	3
1-FCD2-SB9-SS11-35-ITC	3
1-FCD2-SB9-SS14-50-ITC	3
1-FCD2-SB9-SS14-50-ITC Dup.	3
1-FCD2-SB9-SS14-50-ITC Spike	22
1-FCD2-SB9-SS18-70-ITC	3
Spike concentration	23

Relative Percent Difference - 0.00%

Percent Recovery - 83%

THIS PAGE INTENTIONALLY LEFT BLANK

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-5
Field Sample No. 1-FCD2-SB9-SS11-35-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No: 1-FCD2-SB9-SS11-35-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroetnane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dicnloroetnylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetracnloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroetnylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Page 5

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:
WP Flannery

Lab Sample No. 36574-6
Field Sample No. 1-FCD2-SB9-SS14-50-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No: 1-FCD2-SB9-SS14-50-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-7
Field Sample No. 1-FCD2-SB8-SS5-10-ITC
Date Collected 4-15-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No.: 1-FCD2-SB8-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.014	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-8
Field Sample No. 1-FCD2-SB8-SS14-50-ITC
Date Collected 4-15-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No.: 1-FCD2-SB8-SS14-50-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.017	---	13.5	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:
W Flannery
Sample Matrix:
/ / Water (ug/L)
/X / Soil (ug/g)
/ / Other
Spike Source

Lab Sample No. 36574-9
Field Sample No. 1-FCD2-SB9-SS5-10-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

Dilution Factor N/A
*Moisture N/A %

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No.: 1-FCD2-SB9-SS5-10-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:
W P Flanagan

Lab Sample No. 36574-10
Field Sample No. 1-FCD2-SB9-SS8-20-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No.: 1-FCD2-SB9-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:
W P Flannery

Lab Sample No. 36574-11
Field Sample No. 1-FCD2-SB9-SS18-70-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No.: 1-FCD2-SB9-SS18-70-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Page 17

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:
W P Fennyer

Lab Sample No. 36574-12
Field Sample No. 1-FCD2-SB8-SS10-30-ITC
Date Collected 4-15-86
Date Received 4-17-86
Date Analyzed 4-25-86
QC Report No. 8010-26

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Field Sample No.: 1-FCD2-SB8-SS10-30-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.019	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-7
Field Sample No. 1-FCD2-SB8-SS10-30-ITC
Date Collected 4-15-86
Date Received 4-17-86
Date Analyzed 5-5-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-11
Field Sample No. 1-FCD2-SB8-SS14-50-ITC
Date Collected 4-15-86
Date Received 4-17-86
Date Analyzed 5-1-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-6
Field Sample No. 1-FCD2-SB9-SS5-10-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 5-5-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-5
Field Sample No. 1-FCD2-SB9-SS8-20-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 5-5-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-11
Field Sample No. 1-FCD2-SB9-SS11-35-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 5-2-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetnyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-12
Field Sample No. 1-FCD2-SB9-SS14-50-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 5-2-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36574-10
Field Sample No. 1-FCD2-SB9-SS18-70-ITC
Date Collected 4-16-86
Date Received 4-17-86
Date Analyzed 5-1-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. ç 36574-5, 36574-8
Field Sample No. 1-FCD2-SB8-SS5-10-ITC
Date Collected 4-15-86
Date Received 4-17-86
Date Analyzed 5-6-86
QC Report No. 8020-22

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

Dilution Factor ç 1:1000, Conc.
*Moisture N/A %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	8.4	---	12.9	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	2.4	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park So.
Suite 590
Atlanta, GA 30329-2213

October 9, 1986

Attn: M.A. Guthrie

April 19, 1986 | 56394MAG | 36608/rjc

REVISED REPORT

Ten (10) soil samples.

SAMPLE IDENTIFICATION	DATE	TIME
1-FCD2-SB11-SS1-3-ITC	4-16-86	1100
1-FCD2-SB12-SS1-3-ITC	4-16-86	1130
7-ERA2-SB5-SS5-10-ITC	4-17-86	0845
7-ERA2-SB5-SS10-30-ITC	4-17-86	0845
7-ERA2-SB5-SS14-50-ITC	4-17-86	0845
7-ERA2-SB5-SS20-80-ITC	4-17-86	0845
9-PWW2-SB1-SS1-3-ITC	4-17-86	1400
9-PWW2-SB2-SS1-3-ITC	4-17-86	1400
7-ERA2-SB5-SS24-100-ITC	4-18-86	0800
7-ERA2-SB5-SS26-120-ITC	4-18-86	0800

Four of 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.

Four of 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. The results are listed on the following summary sheets.

Eight of the samples were analyzed for total petroleum hydrocarbons (TPH) by infrared spectroscopy technique (TPH, 418.1). The results are listed in Table I.

William P. Fassinger
Chemist

Eric W. Lindsay
Laboratory Manager I

Two of the samples were analyzed for Oil and Grease by infrared spectroscopy technique (SW 3550 followed by EPA procedure 413.2). The results are listed in Table II.

Two of the samples were analyzed for Phenol according to Standard Methods for the Examination of Water and Wastewater, Methods 510A and 510C. The results are listed in the following summary sheets.

Table I

SAMPLE: ES Job No. 56394, AF Plant 42 IRP-II
DATE OF ANALYSIS: 4-30-86

Sample Identification	Total Petroleum Hydrocarbons (ug/g)
7-ERA2-SB5-SS26-120-ITC	114
7-ERA2-SB5-SS26-120-ITC Duplicate	137
7-ERA2-SB5-SS26-120-ITC Spike	160
Spike Concentration	25
7-ERA2-SB5-SS24-100-ITC	6700
7-ERA2-SB5-SS5-10-ITC	3
7-ERA2-SB5-SS10-30-ITC	15000
7-ERA2-SB5-SS14-50-ITC	3100
7-ERA2-SB5-SS20-80-ITC	160
1-FCD2-SB12-SS1-3-ITC	4
1-FCD2-SB11-SS1-3-ITC	17

Relative Percent Difference - 18%

Percent Recovery -138%

Table II

SAMPLE: ES Job No. 56394, AF Plant 42 IRP-II
DATE OF ANALYSIS: 4-30-86

Sample Identification	Total Petroleum Hydrocarbons (ug/g)
9-PWW2-SB2-SS1-3-ITC	2
9-PWW2-SB1-SS1-3-ITC	3
9-PWW2-SB1-SS1-3-ITC Duplicate	4
9-PWW2-SB1-SS1-3-ITC Spike	22
Spike Concentration	25

Relative Percent Difference - 29%

Percent Recovery - 77%

THIS PAGE INTENTIONALLY LEFT BLANK

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 4-17-86
Date Received 4-19-86

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

QC Report No. 66700-9
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	Phenol
9-PWW2-SB1-SS1-3-ITC	36608-1	ND<0.24
9-PW22-SB2-SS1-3-ITC	36608-2	ND<0.24
Date Analyzed	M D	4/21
Analytical Method	**	510A/ 510C

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

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Report:

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

Dilution Factor _____
*Moisture _____

QC Report No. 66700-9
Laboratory Supervisor Approval:
_____

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Phenol	36608-3	36608-4	4/21	510A/510C	--	ND< 0.24	ND< 0.24	---	2	ND< 0.24	1.1	55	

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

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 1-FCD2-SB12-SS1-3-ITC
Duplicates 36608-6, 36608-9
Spike 36608-11
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / Other
Spike Source

QC Report No. 8010-27
Date Analyzed 4-28-86
Laboratory Supervisor Approval:
Dilution Factor
*Moisture %

Compound	Blank	Duplicates C1	Duplicates C2	Duplicates RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bis(2-Chloroisopropyl)ether	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bromobenzene	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bromodichloromethane	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.048	96	
Bromoform	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.046	92	
Bromomethane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Carbon tetrachloride	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.048	96	
Chloroacetaldehyde	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloral	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chlorobenzene	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.044	88	
Chloroethane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloroform	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.049	98	
1-Chlorohexane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloromethane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chlorotoluene	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Dibromochloromethane	<0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.153	99	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB12-SS1-3-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Bromomethane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Dichlorodifluoromethane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
1,1-Dichloroethane	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.048	96	
1,2-Dichloroethane	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.051	102	
1,1-Dichloroethylene	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.039	78	
trans-1,2-dichloroethylene	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.047	94	
Dichloromethane	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.047	94	
1,2-Dichloropropane	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	104	
1,3-Dichloropropylene	<0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.153	99	
1,1,2,2-Tetrachloroethane	<0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.115	115	
1,1,1,2-Tetrachloroethane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Tetrachloroethylene	<0.010	ND< 0.010	ND< 0.010	---	0.100	<0.010	0.115	115	
1,1,1-Trichloroethane	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.044	88	
1,1,2-Trichloroethane	<0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.153	99	
Trichloroethylene	<0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.048	96	
Trichlorofluoromethane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Trichloropropane	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Vinyl chloride	<0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	

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

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
Page 7

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-5
Field Sample No. 1-FCD2-SB11-SS1-3-ITC
Date Collected 4-16-86
Date Received 4-19-86
Date Analyzed 4-28-86
QC Report No. 8010-27

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB11-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 9

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-6
Field Sample No. 1-FCD2-SB12-SS1-3-ITC
Date Collected 4-16-86
Date Received 4-19-86
Date Analyzed 4-28-86
QC Report No. 8010-27

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

1-FCD2-SB12-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-7
Field Sample No. 9-PWW2-SB1-SS1-3-ITC
Date Collected 4-17-86
Date Received 4-19-86
Date Analyzed 4-28-86
QC Report No. 8010-27

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

9-PWW2-SB1-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.011	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-8
Field Sample No. 9-PWW2-SB2-SS1-3-ITC
Date Collected 4-17-86
Date Received 4-19-86
Date Analyzed 4-28-86
QC Report No. 8010-27

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

9-PWW2-SB2-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-9 Duplicate
Field Sample No. 1-FCD2-SB12-SS1-3-ITC
Date Collected 4-16-86
Date Received 4-19-86
Date Analyzed 4-28-86
QC Report No. 8010-27

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Duplicate
1-FCD2-SB12-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-Dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-11 Spike
Field Sample No. 1-FCD2-SB12-SS1-3-ITC
Date Collected 4-16-86
Date Received 4-19-86
Date Analyzed 4-28-86
QC Report No. 8010-27

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.048	---	14.2	---	
Bromoform	0.010	0.046	---	19.4	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.048	---	13.8	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.044	---	24.2	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.049	---	11.5	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.153	---	17.0	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Spike
1-FCD2-SB12-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.048	---	10.3	---	
1,2-Dichloroethane	0.010	0.051	---	12.2	---	
1,1-Dichloroethylene	0.010	0.039	---	9.3	---	
trans-1,2-dichloroethylene	0.010	0.047	---	11.1	---	
Dichloromethane	0.010	0.047	---	6.7	---	
1,2-Dichloropropane	0.010	0.052	---	15.6	---	
1,3-Dichloropropylene	0.010	0.153	---	15.8	---	
1,1,2,2-Tetrachloroethane	0.010	0.115	---	21.8	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.115	---	21.8	---	
1,1,1-Trichloroethane	0.010	0.044	---	13.4	---	
1,1,2-Trichloroethane	0.010	0.153	---	17.0	---	
Trichloroethylene	0.010	0.048	---	16.4	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-7
Field Sample No. 1-FCD2-SB11-SS1-3-ITC
Date Collected 4-16-86
Date Received 4-19-86
Date Analyzed 5-2-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-9
Field Sample No. 1-FCD2-SB12-SS1-3-ITC
Date Collected 4-16-86
Date Received 4-19-86
Date Analyzed 5-2-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	0.007c	---	12.5	---	
1,4-Dichlorobenzene	0.005	0.007c	---	12.5	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

c - These isomers co-elute at this concentration. Amount reported is total.

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-8
Field Sample No. 9-PWW2-SB1-SS1-3-ITC
Date Collected 4-17-86
Date Received 4-19-86
Date Analyzed 5-2-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36608-10
Field Sample No. 9-PWW2-SB2-SS1-3-ITC
Date Collected 4-17-86
Date Received 4-19-86
Date Analyzed 5-2-86
QC Report No. 8020-22

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park So., Suite 590
Atlanta, GA 30329-2213

October 9, 1986

Attn: M.A. Guthrie

April 23, 1986 | 56394 | 36658/rjc

REVISED REPORT

Eight (8) soil samples.

The samples were analyzed for Total Petroleum Hydrocarbons (TPH) by infrared spectroscopy technique (EPA procedure 418.1). The results are listed below.

Sample: ES Job No. 56394, AF Plant 42 IRP-II
Date of Analysis: 5-1-86

Date	Time	Sample Identification Number	Total Petroleum Hydrocarbons (ug/g)
04-22-86	0800	7-ERA2-SB6-SS24-100-ITC	4
		7-ERA2-SB6-SS24-100-ITC Dup	5
		7-ERA2-SB6-SS24-100-ITC Spike	25
		Spike Concentration	23
04-21-86	1130	7-ERA2-SB6-SS10-30-ITC	4750
04-18-86	0800	7-ERA2-SB5-SS29-150-ITC	3600
04-18-86	0800	7-ERA2-SB5-SS31-170-ITC	6
04-21-86	1130	7-ERA2-SB6-SS18-70-ITC	8
04-19-86	0800	7-ERA2-SB5-SS34-200-ITC	4
04-21-86	1130	7-ERA2-SB6-SS14-50-ITC	2
04-21-86	1130	7-ERA2-SB6-SS5-10-ITC	ND<2

Relative Percent Difference - 22.2%

Percent Recovery - 89.1%

ND - This compound was not detected; the limit of detection for this analysis is the amount stated in the table above.

David S. Tripp
Chemist

Eric W. Lindsay
Laboratory Manager I

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park S., Suite 590
Atlanta, GA 30329-2213

October 9, 1986

Attn: M.A. Guthrie

April 24, 1986 | 56394 | 36675 rgc

REVISED REPORT

Four (4) soil samples, and Three (3) water samples.

Sample Identification	Date	Time
7-ERA2-SB7-SS5-10-ITC	4-22-86	1230
7-ERA2-SB7-SS10-30-ITC	4-22-86	1230
7-ERA2-SB7-SS14-50-ITC	4-22-86	1230
7-ERA2-SB7-SS15-10-ITC	4-22-86	1230

Sample Identification	Date	Time
DW2-1-ITC	4-23-86	1030
DW4-1-ITC	4-23-86	1100
DW4-2-ITC	4-23-86	1100

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 results are listed on the Purgeable Halogenated Summary Sheets.

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 Aromatic Volatile Organics sheets.

The four soil samples were analyzed for total petroleum hydrocarbons (TPH) by infrared spectroscopy technique (EPA procedure 418.1). The results are listed below.

William F. Fassinger
Chemist

Eric W. Lindsay
Laboratory Manager I

Two water samples were digested with acid and analyzed by A.A.S. The results are listed on the Metals summary sheets.

The water samples were also analyzed for Cyanide according to Standard Methods for the Examination of Water and Wastewater, Method 412E. The results are listed in the A.R.S. Metals and Q.C.R.S. Metals summary sheets, also in the A.R.S. and Q.C.R.S. Environmental Quality Parameters summary sheets.

Total Petroleum Hydrocarbons

SAMPLE: ES Job No. 56394, AF Plant 42, IRP-II
DATE OF ANLAYSIS: 5-1-86

Sample Identification		Micrograms/grams
7-ERA2-SB7-SS5-10-ITC		ND<2
7-ERA2-SB7-SS10-30-ITC		ND<2
7-ERA2-SB7-SS14-50-ITC		3
7-ERA2-SB7-SS15-10-ITC		3
7-ERA2-SB7-SS15-10-ITC	Duplicate	2
7-ERA2-SB7-SS15-10-ITC	Spike	20
Spike Concentration		23

Relative Percent Difference - 40.0%

Percent Recovery - 76.1%

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

ES Job No. 56394
Client
Project No.Ar Plant 42 IRP II
Client No.
Date Collected 4-23 86
Date Received 4-24 86

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

QC Report No.
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	M D	Ni
DW4-1-IIC	36675-1		ND<100
DW4-2-IIC	36675-2a		ND<100
Date Analyzed			4/25
Analytical Method		**	F

* If % moisture is reported, results ** F = Flame AA's C = Cold Vapor AA's G = Graphit Furnace AA's
are presented on a dry weight basis. H = Hydride Vapor AA's P = Inductively Coupled Plasma

QUALITY CONTROL RESULTS SUMMARY
Metals

Sample Matrix:
/X/ Water (ug/L)
/ / Soil (ug/ml)
/ / Other
Spike Source(s)

Dilution Factor
*Moisture

QC Report No.
Laboratory Supervisor Approval:

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Nickel	36675-2B	36675-2C	4-25	F	ND<100	ND<100	ND<100	---	5000	ND<100	5300	106	---

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

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Report:

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 4-23-86
Date Received 4-23-86

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

QC Report No.Not enough sample
Laboratory Supervisor Approval:

Dilution Factor
*, Moisture

Field Sample No.	Lab Sample No.	Cyanide								
DW4-1-ITC	36675-1	ND<20								
DW4-2-ITC	36675-2	ND<20								
Date Analyzed	M D	4-25								
Analytical Method	**	412E								

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

Sample Matrix:
/X/ Water (ug/L)
/_/ Soil (ug/ml)
/_/ Other _____
Spike Source(s)_____

Dilution Factor_____
*Moisture_____

QC Report No._____
Laboratory Supervisor Approval:
_____

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Cyanide	NOT ENOUGH SAMPLE RECEIVED TO RUN SPIKE OR DUPLICATE FOR EITHER SAMPLE.												

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

QUALITY CONTROL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

Lab Sample Nos. DW4-2-ITC
Duplicates 36675-10, 36675-12
Spike 36675-13
Sample Matrix:
/X/ Water (ug/L)
/ / Soil
/ / Other
Spike Source

QC Report No. 601-28
Date Analyzed 4-29-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture N/A %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Bis(2-Chloroethoxy)methane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Bis(2-Chloroisopropyl)ether	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Bromobenzene	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Bromodichloromethane	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	11.2	112	
Bromoform	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	11.6	116	
Bromomethane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Carbon tetrachloride	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	11.9	119	
Chloroacetaldehyde	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Chloral	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Chlorobenzene	ND< 1.0	ND< 1.0	ND< 1.0	---	1.0	<1.0	10.8	108	
Chloroethane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Chloroform	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	11.9	119	
1-Chlorohexane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
2-Chloroethyl vinyl ether	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Chloromethane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Chloromethyl methyl ether	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Chlorotoluene	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Dibromochloromethane	ND< 1.0	ND< 1.0	ND< 1.0	---	31.0	<1.0	37.8	122	

QUALITY CONTROL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW4-2-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Dichlorodifluoromethane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
1,1-Dichloroethane	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	11.6	116	
1,2-Dichloroethane	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	11.2	112	
1,1-Dichloroethylene	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	14.4	144	
trans-1,2-dichloroethylene	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	10.7	107	
Dichloromethane	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	11.0	110	
1,2-Dichloropropane	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	12.5	125	
1,3-Dichloropropylene	ND< 1.0	ND< 1.0	ND< 1.0	---	31.0	<1.0	37.8	122	
1,1,2,2-Tetrachloroethane	ND< 1.0	ND< 1.0	ND< 1.0	---	20.0	<1.0	21.6	108	
1,1,1,2-Tetrachloroethane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Tetrachloroethylene	ND< 1.0	ND< 1.0	ND< 1.0	---	20.0	<1.0	21.6	108	
1,1,1-Trichloroethane	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	9.7	97	
1,1,2-Trichloroethane	ND< 1.0	ND< 1.0	ND< 1.0	---	31.0	<1.0	37.8	122	
Trichloroethylene	ND< 1.0	ND< 1.0	ND< 1.0	---	10.0	<1.0	12.0	120	
Trichlorofluoromethane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Trichloropropane	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	
Vinyl chloride	ND< 1.0	ND< 1.0	ND< 1.0	---	---	<1.0	---	---	

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

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. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-9
Field Sample No. DW2-1-ITC
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-29-86
QC Report No. 601-28

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

Dilution Factor N/A
*Moisture N/A %

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

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW2-1-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	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	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.

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-10
Field Sample No. DW4-2-ITC
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-29-86
QC Report No. 601-28

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

Dilution Factor N/A
*Moisture N/A %

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

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW4-2-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	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	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.

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-11
Field Sample No. DW4-1-ITC
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-29-86
QC Report No. 601-28

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

Dilution Factor N/A
*Moisture N/A %

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

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW4-1-1-C

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	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	1.6	---	13.4	---	
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.

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-12
Field Sample No. DW4-2-ITC Duplicate
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-29-86
QC Report No. 601-28

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

Dilution Factor N/A
*Moisture N/A %

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

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW4-2-ITC Duplicate

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	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	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.

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-13
Field Sample No. DW4-2-ITC Spike
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-29-86
QC Report No. 601-28

Sample Matrix:
/x/ Water (ug/L)
/ / Soil
/ / Other

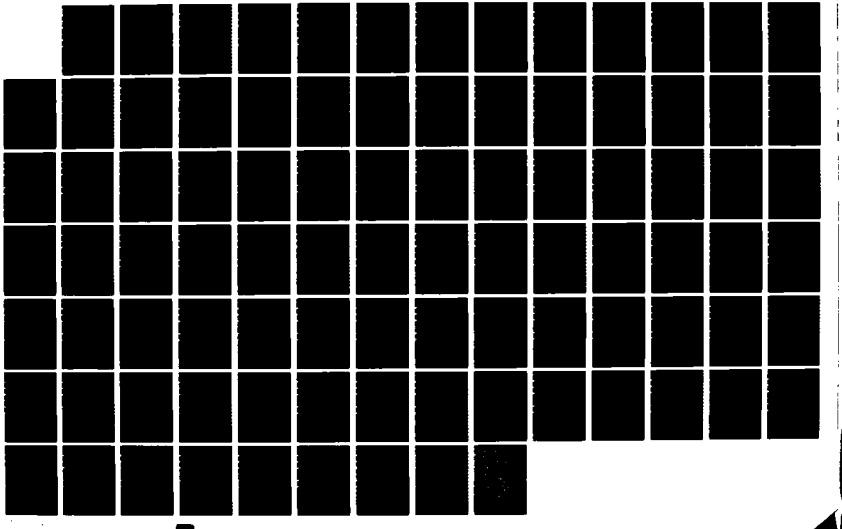
Dilution Factor N/A
*Moisture N/A %

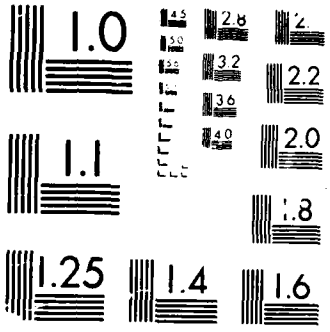
Spike Source

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	11.2	---	14.2	---	
Bromoform	1.0	11.6	---	19.4	---	
Bromomethane	1.0	ND<1.0	---	---	---	
Carbon tetrachloride	1.0	11.9	---	13.7	---	
Chloroacetaldehyde	1.0	ND<1.0	---	---	---	
Chloral	1.0	ND<1.0	---	---		
Chlorobenzene	1.0	10.8	---	24.3		
Chloroethane	1.0	ND<1.0	---	---		
Chloroform	1.0	11.9	---			
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					

Continued

AD-A190 943 INSTALLATION RESTORATION PROGRAM PHASE 2 7/7
CONFIRMATION/QUANTIFICATION STAG..(U)
ENGINEERING-SCIENCE INC PASADENA CALIF 20 FEB 87
UNCLASSIFIED F33615-84-D-4403 F/G 24/7 NL





MICROCOPY RESOLUTION TEST CHART

ANALYTICAL RESULTS SUMMARY
Purgeable Halocarbons
EPA Method 601

DW4-2-ITC Spike

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1.0	ND<1.0	---	---	---	
Dichlorodifluoromethane	1.0	ND<1.0	---	---	---	
1,1-Dichloroethane	1.0	11.6	---	10.3	---	
1,2-Dichloroethane	1.0	11.2	---	12.2	---	
1,1-Dichloroethylene	1.0	14.4	---	9.1	---	
trans-1,2-dichloroethylene	1.0	10.7	---	11.0	---	
Dichloromethane	1.0	11.0	---	6.5	---	
1,2-Dichloropropane	1.0	12.5	---	15.5	---	
1,3-Dichloropropylene	1.0	37.8	---	15.8	---	
1,1,2,2-Tetrachloroethane	1.0	21.6	---	21.8	---	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0	---	---	---	
Tetrachloroethylene	1.0	21.6	---	21.8	---	
1,1,1-Trichloroethane	1.0	9.7	---	13.4	---	
1,1,2-Trichloroethane	1.0	37.8	---	16.9	---	
Trichloroethylene	1.0	12.0	---	16.3	---	
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 Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-7
Field Sample No. DW4-2-ITC
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-30-86
QC Report No. 602-20

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 (Dimetnyl 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.

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-8
Field Sample No. DW4-1-ITC
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-30-86
QC Report No. 602-20

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.

ANALYTICAL RESULTS SUMMARY
Purgeable Aromatics
EPA Method 602

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36675-10
Field Sample No. DW2-1-ITC
Date Collected 4-23-86
Date Received 4-24-86
Date Analyzed 4-30-86
QC Report No. 602-20

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.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park So.
Suite 590
Atlanta, GA 30329-2213

October 13, 1986

Attn: M.A. Guthrie

April 28, 1986 | 56394MAG | 36699/rjc

REVISED REPORT

Eleven (11) soil samples.

Sample Identification	Date	Time
21-FDA7-SB1-SS3-5-ITC	04-24-86	0900
21-FDA7-SB1-SS8-20-ITC	04-24-86	0900
21-FDA7-SB2-SS4-7.5-ITC	04-24-86	1000
21-FDA7-SB2-SS8-20-ITC	04-24-86	1000
21-FDA7-SB3-SS3-5-ITC	04-24-86	1100
21-FDA7-SB3-SS8-20-ITC	04-24-86	1100
8-FTA8-SB1-SS3-5-ITC	04-25-86	0815
8-FTA8-SB1-SS8-20-ITC	04-25-86	0815
17-NFTC-SB3-SS1-3-ITC	04-25-86	1000
17-NFTC-SB3-SS5-3-ITC	04-25-86	1000
1-FCD2-SB10-SS1-3-ITC	04-25-86	1500

The samples were analyzed for Total Petroleum Hydrocarbons (TPH) by infrared spectroscopy technique (EPA Method 418.1, Extraction Method 3550). The results are listed on the following page.

David S. Tripp
Chemist

Eric W. Lindsay
Laboratory Manager I

SAMPLE: ES Job No. 56394, AF Plant 42 IRP-II
DATE OF ANALYSIS: 5-6-86

Sample Identification	Total Petroleum Hydrocarbons (ug/g)
17-NFTC-SB3-SS1-3-ITC	3
21-FDA7-SB3-SS8-20-ITC	ND<2
21-FDA7-SB3-SS3-5-ITC	ND<2
21-FDA7-SB2-SS8-20-ITC	ND<2
21-FDA7-SB1-SS8-20-ITC	ND<2
21-FDA7-SB1-SS3-5-ITC	ND<2
21-FDA7-SB2-SS4-7.5-ITC	ND<2
17-NFTC-SB3-SS15-3-ITC	ND<2
8-FTA8-SB1-SS3-5-ITC	ND<2
8-FTA8-SB1-SS8-20-ITC	ND<2
1-FCD2-SB10-SS1-3-ITC	ND<2
21-FDA7-SB2-SS4-7.5-ITC Duplicate	ND<2
21-FDA7-SB2-SS4-7.5-ITC Spike	18
Spike Concentration	20

Relative Percent Difference - N/A

Percent Recovery - 90.0%

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

[illegible] • [illegible] • 213 [illegible] • 714-[illegible]

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park, So., Suite 590
Atlanta, GA 30329-2213

October 9, 1986

Attn: Mark Guthrie

April 30, 1986 | 56394 | 36732/rjc

REVISED REPORT

Eighteen (18) soil samples.

Sample Identification	Date	Time
19-ERA3-SB1-SS5-10-ITC	4-25-86	1400
19-ERA3-SB2-SS5-10-ITC	4-25-86	1430
10-PWN2-SB1-SS1-3-ITC	4-28-86	1100
10-PWN2-SB2-SS1-3-ITC	4-28-86	1115
10-PWN2-SB3-SS1-3-ITC	4-28-86	1130
10-PWN2-SB4-SS1-3-ITC	4-28-86	1145
10-PWN2-SB4-SS15-3-ITC	4-28-86	1145
12-ERA1-SB1-SS4-7.5-ITC	4-28-86	0900
12-ERA1-SB1-SS8-20-ITC	4-28-86	0900
12-ERA1-SB2-SS3-5-ITC	4-28-86	1000
12-ERA1-SB2-SS8-20-ITC	4-28-86	1000
13-DAB2-SB1-SS1-3-ITC	4-28-86	1200
13-DAB2-SB2-SS1-3-ITC	4-28-86	1215
13-DAB2-SB3-SS1-3-ITC	4-28-86	1230
13-DAB2-SB4-SS1-3-ITC	4-28-86	1245
5-AFTC-SB3-SS1-3-ITC	4-29-86	1200
5-AFTC-SB3-SS15-3-ITC	4-29-86	1200
6-OFTC-SB2-SS1-3-ITC	4-29-86	1230

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.

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. The results are listed on the following summary sheets.

William P. Fassinger
Chemist

Richard L. Merrell
Laboratory Director

The samples were also extracted according to CAM Title 22:66700; and analyzed by Atomic Absorption Spectroscopy and Inductively Coupled Plasma. The phenolics were distilled and analyzed according to standard methods 510A/510C. The results are listed on the following pages.

Samples 5-AFTC-SB3-SS1-3-ITC, 5-AFTC-SB3-SS15-3-ITC, and 6-OFTC-SB2-SS1-3-ITC were extracted according to SW Method 8080 and split into two fractions. One fraction was cleaned several times with mercury and sulfuric acid and analyzed for PCB's. The second fraction was analyzed for organochlorine pesticides. Both fractions were analyzed by direct injection into a Varian 3700 gas chromatograph equipped with an electron capture detector. The results are listed on the following summary sheets.

Also the samples were analyzed for Oil and Grease by infrared spectroscopy technique (EPA procedure 413.2). The results are listed in Table I.

Table I

SAMPLE: ES Job No. 56394, AF Plant 42 IRP-II
DATE OF ANALYSIS: 5-22-86

Sample Identification	Total Oil and Grease (ug/g)
13-DAB2-SB1-SS1-3-ITC	3
13-DAB2-SB2-SS1-3-ITC	ND<2
13-DAB2-SB3-SS1-3-ITC	ND<2
13-DAB2-SB4-SS1-3-ITC	ND<2
12-ERA1-SB1-SS4-7.5-ITC	ND<2
12-ERA1-SB1-SS8-20-ITC	ND<2
12-ERA1-SB2-SS8-20-ITC	ND<2
12-ERA1-SB2-SS3-5-ITC	8
19-EPA3-SB2-SS5-10-ITC	ND<2
19-EPA3-SB1-SS5-10-ITC	ND<2
10-PWN2-SB1-SS1-3-ITC	ND<2
10-PWN2-SB2-SS1-3-ITC	ND<2
10-PWN2-SB3-SS1-3-ITC	13
10-PWN2-SB4-SS15-3-ITC	ND<2
10-PWN2-SB4-SS1-3-ITC	ND<2
10-PWN2-SB3-SS1-3-ITC Duplicate	5
10-PWN2-SB3-SS1-3-ITC Spike	30
Spike Concentration	20

Relative Percent Difference - 89%

Percent Recovery -105%

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Metals

Report:

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 4-29-86
Date Received 4-30-86

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

QC Report No. 66700-10
Laboratory Supervisor Approval:

Dilution Factor 10
* Moisture

Field Sample No.	Lab Sample No.	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
6-OFTC-SB2-SS1-3-ITC	1	ND<0.03	5.2	ND<0.03	ND<0.06	ND<0.2	0.016	ND< 0.005	0.1
5-AFTC-SB3-SS1-3-ITC	2	0.038	3.7	ND<0.03	ND<0.06	ND<0.2	0.014	ND< 0.005	0.1
5-AFTC-SB3-SS15-3-ITC	3	0.044	4.0	ND<0.03	ND<0.06	ND<0.2	0.001	ND< 0.005	ND<0.03
5-AFTC-SB3-SS15-3-ITC	4D	0.059	3.8	ND<0.03	ND<0.06	ND<0.2	0.003	ND< 0.005	ND<0.03
5-AFTC-SB3-SS15-3-ITC	5S	0.52	8.4	4.8	4.9	4.6	1.08	0.41	0.88
Date Analyzed	M D	5/16	5/15	5/15	5/15	5/15	5/19	5/12	5/15
Analytical Method	**	G	P	P	P	P	C	G	P

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

F = Flame AAS C = Cold Vapor AAS G = Graphit Furnace AAS
H = Hydride Vapor AAS P = Inductively Coupled Plasma

Sample Matrix:
/ / Water (uq/L)
/X/ Soil (uq/ml)
/ / Other
Spike Source(s)

Dilution Factor 10
*Moisture

QC Report No. 66700-10
Laboratory Supervisor Approval:

Analyte Metal	Laboratory Sample Nos. Duplicates	Spike	Date Anal.	** Anal. Method	Blank	Duplicates C1	C2	RPD	Spiked Recovery SA	SR	SSR	PR	Notes
Arsenic	4D	5S	5/16	G	---	0.044	0.059	29	0.5	0.052	0.052	90	
Barium	4D	5S	5/15	P	---	4.0	3.8	5	5	3.9	8.4	90	
Cadmium	4D	5S	5/15	P	---	ND< 0.03	ND< 0.03	---	5	ND< 0.03	4.8	96	
Chromium	4D	5S	5/15	P	---	ND< 0.06	ND< 0.06	---	5	ND< 0.06	4.9	98	
Lead	4D	5S	5/15	P	---	ND< 0.02	ND< 0.02	---	5	ND< 0.02	4.6	92	
Mercury	4D	5S	5/19	C	---	0.001	0.003	100	1	0.002	1.08	108	
Selenium	4D	5S	5/12	G	---	ND< 0.005	ND< 0.005	---	0.5	ND< 0.005	0.41	82	
Silver	4D	5S	5/15	P	---	ND< 0.03	ND< 0.03	---	1	ND< 0.03	0.88	88	

Engineering-Science

QUALITY CONTROL RESULTS SUMMARY
Environmental Quality Parameters

Report:

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

Dilution Factor 5
*Moisture _____

QC Report No. 66700-11
Laboratory Supervisor Approval:
_____

Spike Source(s) _____

Analyte Metal	Laboratory Sample Nos.		Date Anal.	** Anal. Method	Blank	Duplicates			Spiked Recovery				Notes
	Duplicates	Spike				C1	C2	RPD	SA	SR	SSR	PR	
Phenolics	10-PWN2-584 SS15-3	10-PWN2-584 SS15-3	5/5	420.1	<0.05	0.10	0.14	33	2	0.12	1.54	71	

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

INTERNATIONAL TECHNOLOGY CORPORATION

Engineering-Science

ANALYTICAL RESULTS SUMMARY
Environmental Quality Parameters

Page: 6
Report:

ES Job No. 56394
Client
Project No. AF Plant 42 IRP-II
Client No.
Date Collected 4-29-86
Date Received 4-30-86

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

QC Report No. 66700-11
Laboratory Supervisor Approval:

Dilution Factor
* Moisture

Field Sample No.	Lab Sample No.	Phenolics								
10PWN2-SB1-SS1-3-ITC		0.12								
10-PWN2-SB2-SS1-3-ITC		0.19								
10-PWN2-SB3-SS1-3-ITC		0.13								
10-PWN2-SB4-SS1-3-ITC		0.18								
10-PWN2-SB4-SS15-3-ITC		0.10								
Duplicate		0.14								
Spike		1.54								
Date Analyzed	M D	5/5								
Analytical Method	**	420.1								

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

GC PESTICIDE ANALYSIS

SAMPLE IDENTIFICATION: Method Blank 36732 - MB0512P2

DATE ANALYZED: 5-17-86

UNITS: Micrograms/kilogram (ppb)

PESTICIDES-(PP's)

alpha-BHC	ND<1
beta-BHC	ND<1
delta-BHC	ND<1
gamma-BHC (Lindane)	ND<1
Heptachlor	ND<1
Aldrin	ND<1
Heptachlor Epoxide	ND<1
Endosulfan I	ND<1
Dieldrin	ND<2
4,4'-DDE	ND<2
Endrin	ND<2
Endosulfan II	ND<2
4,4'-DDD	ND<2
Endrin Aldenyde	ND<2
Endosulfan Sulfate	ND<2
4,4'-DDT	ND<2
Methoxychlor	ND<10
Endrin Ketone	ND<2
Chlordane	ND<10
Toxaphene	ND<20
PCB-1016	ND<10
PCB-1221	ND<10
PCB-1232	ND<10
PCB-1242	ND<10
PCB-1248	ND<10
PCB-1254	ND<20
PCB-1260	ND<20

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.

GC PESTICIDE ANALYSIS

SAMPLE IDENTIFICATION: 36732 - 5-AFTC-SB3-SS1-3-ITC

DATE ANALYZED: 5-21-86

UNITS: Micrograms/kilogram (ppb)

PESTICIDES-(PP's)

alpha-BHC	ND<1
beta-BHC	ND<1
delta-BHC	ND<1
gamma-BHC (Lindane)	ND<1
Heptachlor	ND<1
Aldrin	ND<1
Heptachlor Epoxide	ND<1
Endosulfan I	ND<1
Dieldrin	ND<2
4,4'-DDE	ND<2
Endrin	ND<2
Endosulfan II	ND<2
4,4'-DDD	ND<2
Endrin Aldehyde	ND<2
Endosulfan Sulfate	ND<2
4,4'-DDT	ND<2
Methoxychlor	ND<10
Endrin Ketone	ND<2
Chlordane	ND<10
Toxaphene	ND<20
PCB-1016	ND<10
PCB-1221	ND<10
PCB-1232	ND<10
PCB-1242	ND<10
PCB-1248	ND<10
PCB-1254	ND<20
PCB-1260	ND<20

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.

GC PESTICIDE ANALYSIS

SAMPLE IDENTIFICATION: 36732 - 5-AFTC-SB3-SS15-3-ITC

DATE ANALYZED: 5-21-86

UNITS: Micrograms/kilogram (ppb)

PESTICIDES-(PP's)

alpha-BHC	ND<4
beta-BHC	ND<4
delta-BHC	ND<4
gamma-BHC (Lindane)	ND<4
Heptachlor	ND<4
Aldrin	ND<4
Heptachlor Epoxide	ND<4
Endosulfan I	ND<4
Dieldrin	ND<8
4,4'-DDE	ND<8
Endrin	ND<8
Endosulfan II	ND<8
4,4'-DDD	ND<8
Endrin Aldehyde	ND<8
Endosulfan Sulfate	ND<8
4,4'-DDT	ND<8
Methoxychlor	ND<40
Endrin Ketone	ND<8
Chlordane	ND<40
Toxaphene	ND<80
PCB-1016	ND<10
PCB-1221	ND<10
PCB-1232	ND<10
PCB-1242	ND<10
PCB-1248	ND<10
PCB-1254	ND<20
PCB-1260	TR<20

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.

GC PESTICIDE ANALYSIS

SAMPLE IDENTIFICATION: 36732 - 6-OFTC-SB2-SS1-3-ITC

DATE ANALYZED: 5-17-86

UNITS: Micrograms/kilogram (ppb)

PESTICIDES-(PP's)

alpha-BHC	ND<10
beta-BHC	ND<10
delta-BHC	ND<10
gamma-BHC (Lindane)	ND<10
Heptachlor	ND<10
Aldrin	ND<10
Heptachlor Epoxide	ND<10
Endosulfan I	ND<10
Dieldrin	ND<20
4,4'-DDE	ND<20
Endrin	ND<20
Endosulfan II	ND<20
4,4'-DDD	ND<20
Endrin Aldehyde	ND<20
Endosulfan Sulfate	ND<20
4,4'-DDT	ND<20
Methoxychlor	ND<100
Endrin Ketone	ND<20
Chlordane	ND<100
Toxaphene	ND<200
PCB-1016	ND<50
PCB-1221	ND<50
PCB-1232	ND<50
PCB-1242	ND<50
PCB-1248	320
PCB-1254	ND<100
PCB-1260	ND<100

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
Page 11

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 10-PW02-SB4-SS1-3-ITC
Duplicates 36732-16, 36732-20
Spike 36732-21
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ Other _____
Spike Source _____

QC Report No. 8010-29
Date Analyzed 5-6-86
Laboratory Supervisor Approval:
_____
Dilution Factor N/A
*Moisture _____ %

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bis(2-Chloroethoxy)methane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bis(2-Chloroisopropyl)ether	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bromobenzene	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Bromodichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.049	98	
Bromoform	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.054	108	
Bromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Carbon tetrachloride	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.045	90	
Chloroacetaldehyde	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloral	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chlorobenzene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.052	104	
Chloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloroform	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	<0.010	0.050	100	
1-Chlorohexane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
2-Chloroethyl vinyl ether	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chloromethyl methyl ether	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Chlorotoluene	ND< 0.010	ND< 0.010	ND< 0.010	---	---	<0.010	---	---	
Dibromochloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	<0.010	0.160	103	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB4-SS13-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.052	104	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.050	100	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.070	140	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.050	100	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.080	160	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.050	100	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	ND< 0.010	0.160	103	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	ND< 0.010	0.095	95	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	ND< 0.010	0.095	95	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.038	76	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	ND< 0.010	0.160	103	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.051	102	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	

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

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-11
Field Sample No. 13-DAB2-SB4-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

13-DAB2-SB4-SS1-0-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-12
Field Sample No. 13-DAB2-SB3-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

13-DAB2-SB3-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.068	---	13.5	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 17

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-13
Field Sample No. 13-DAB2-SB2-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
Sw Method 8010

13-DAB2-SB2-SS1-3-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.037	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-14
Field Sample No. 13-DAB2-SB1-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

13-DAB2-SB1-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.013	---	13.4	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-15
Field Sample No. 10-PWN2-SB4-SS15-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB4-SS15-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroetnane	0.010	0.039	---	13.5	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-16
Field Sample No. 10-PWN2-SB4-SS1-3-IIC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB4-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-17
Field Sample No. 10-PWN2-SB3-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
( ) Water (ug/L)
(X) Soil (ug/g)
( ) 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroetnyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB3-SS1-3-ITS

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-18
Field Sample No. 10-PWN2-SB2-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB2-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.018	---	13.5	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-19
Field Sample No. 10-PWN2-SB1-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB1-SS1-3-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.075	---	13.5	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-20 Duplicate
Field Sample No. 10-PWN2-SB4-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB4-SS1-3-ITC Duplicate

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-21 Spike
Field Sample No. 10-PWN2-SB4-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-6-86
QC Report No. 8010-29

Sample Matrix:
/ / water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.049	---	14.2	---	
Bromoform	0.010	0.054	---	19.5	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.045	---	13.8	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.052	---	24.3	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.050	---	11.5	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.160	---	17.0	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

10-PWN2-SB4-SS1-3-ITC Spike

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.052	---	10.3	---	
1,2-Dichloroethane	0.010	0.050	---	12.2	---	
1,1-Dichloroethylene	0.010	0.070	---	9.2	---	
trans-1,2-dichloroethylene	0.010	0.050	---	11.1	---	
Dichloromethane	0.010	0.080	---	6.6	---	
1,2-Dichloropropane	0.010	0.050	---	15.6	---	
1,3-Dichloropropylene	0.010	0.160	---	17.0	---	
1,1,2,2-Tetrachloroetnane	0.010	0.095	---	21.9	---	
1,1,1,2-Tetrachloroetnane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.095	---	21.9	---	
1,1,1-Trichloroetnane	0.010	0.038	---	13.4	---	
1,1,2-Trichloroetnane	0.010	0.160	---	17.0	---	
Trichloroethylene	0.010	0.051	---	16.4	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 10-PWN2-SB1-SS1-3-ITC
Duplicates 36732-11, 36732-15
Spike 36732-16
Sample Matrix:
___/ Water (ug/L)
/X_/ Soil (ug/g)
___/ Other ___

QC Report No. 8020-24
Date Analyzed 5-15-86
Laboratory Supervisor Approval: _____
Dilution Factor N/A
*Moisture _____ %

Spike Source 10 ppb 602 standard

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	<0.005	0.038	76	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.041	77	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.040	74	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	<0.005	0.041	73	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.040	75	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.041	76	
Toluene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.058	<0.005	0.042	72	
Xylenes (Dimethyl benzene)	ND< 0.005	ND< 0.005	ND< 0.005	---	---	<0.005	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-6
Field Sample No. 13-DAB2-SB1-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-7
Field Sample No. 10-PWN2-SB3-SS1-3-[illegible]
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimetnyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-8
Field Sample No. 10-PWN2-SB4-SS15-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-9
Field Sample No. 10-PWN2-SB4-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-10
Field Sample No. 10-PWN2-SB2-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-11
Field Sample No. 10-PWN2-SB1-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichloropenzene	0.005	ND<0.005	---	---	---	
1,3-Dichloropenzene	0.005	ND<0.005	---	---	---	
1,4-Dichloropenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-12
Field Sample No. 13-DAB2-SB2-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-13
Field Sample No. 13-DAB2-SB3-SS1-3-[illegible]
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-14
Field Sample No. 13-DAB2-SB4-SS1-3-[illegible]
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture ____ %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-15 Duplicate
Field Sample No. 10-PWN2-SB1-SS1-3-ITC
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36732-15 Spike
Field Sample No. 10-PWN2-SB1-SS1-3-[illegible]
Date Collected 4-28-86
Date Received 4-30-86
Date Analyzed 5-15-86
QC Report No. 8020-24

Sample Matrix:
___ Water (ug/l)
_X_ Soil (ug/g)
___ Other

Dilution Factor ___ N.A
*Moisture ___ %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.038	---	2.5	---	
Chlorobenzene	0.005	0.041	---	7.8	---	
1,2-Dichlorobenzene	0.005	0.040	---	14.3	---	
1,3-Dichlorobenzene	0.005	0.041	---	12.8	---	
1,4-Dichlorobenzene	0.005	0.040	---	12.6	---	
Ethyl benzene	0.005	0.041	---	7.3	---	
Toluene	0.005	0.042	---	4.7	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

*If a less compound was not detected, the limit of detection for this analysis is less than the amount stated in the table above.

THIS PAGE INTENTIONALLY LEFT BLANK

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

Engineering Science
57 Executive Park So., Suite 590
Atlanta, GA 30329-2213

October 9, 1986

Attn: Mark Guthrie

May 1, 1986 | 56394 | 36762/rjc

REVISED REPORT

Eight (8) soil samples.

Sample Identification	Date	Time
3-ERA7-SB1-SS3-5-ITC	4-29-86	0800
3-ERA7-SB1-SS8-20-ITC	4-29-86	0800
3-ERA7-SB2-SS4-7.5-ITC	4-29-86	0915
3-ERA7-SB2-SS8-20-ITC	4-29-86	0915
3-ERA7-SB3-SS3-5-ITC	4-29-86	1030
3-ERA7-SB3-SS8-20-ITC	4-29-86	1030
3-ERA7-SB4-SS3-5-ITC	4-29-86	1130
3-ERA7-SB4-SB8-20-ITC	4-29-86	1130

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.

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. The results are listed on the following summary sheets.

The samples were analyzed for total petroleum hydrocarbons (TPH) by infrared spectroscopy technique (EPA procedure 418.1). The results are listed in Table I.

William P. Fassinger
Chemist

Eric W. Lindsay
Laboratory Manager I

THIS PAGE INTENTIONALLY LEFT BLANK

Table I

SAMPLE: ES Job No.: 56394, AF Plant 42
DATE OF ANALYSES: 5/22/86

Sample Identification	Total Oil and Grease (ug/g)
3-ERA7-SB1-SS3-5-ITC	ND<2
3-ERA7-SB2-SS4-7.5-ITC	ND<2
3-ERA7-SB3-SS3-5-ITC	ND<2
3-ERA7-SB1-SS8-20-ITC	ND<2
3-ERA7-SB4-SS3-5-ITC	45
3-ERA7-SB3-SS8-20-ITC	ND<2
3-ERA7-SB4-SS6-20-ITC	ND<2
3-ERA7-SB2-SS8-20-ITC	ND<2
3-ERA7-SB2-SS8-20-ITC Duplicate	ND<2
3-ERA7-SB2-SS8-20-ITC Spike	24
Spike Concentration	20

Relative Percent Difference - N/A

Percent Recovery - 120°%

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
Page 3

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

Lab Sample Nos. 3-ERA7-SB4-SS3-[illegible]-ITC
Duplicates 36762-12, 36762-13
Spike 36762-14
Sample Matrix:
/__/ Water (ug/L)
/X/ Soil (ug/g)
/__/ Other
Spike Source

QC Report No. 8010-30
Date Analyzed 5-7-86
Laboratory Supervisor Approval:
Dilution Factor N/A
*Moisture __%

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Bis(2-Chloroethoxy)methane	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Bis(2-Chloroisopropyl)ether	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Bromobenzene	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Bromodichloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.050	ND<0.010	0.051	102	
Bromoform	ND<0.010	ND<0.010	ND<0.010	---	0.050	ND<0.010	0.050	100	
Bromomethane	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Carbon tetrachloride	ND<0.010	ND<0.010	ND<0.010	---	0.050	ND<0.010	0.051	102	
Chloroacetaldehyde	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Chloral	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Chlorobenzene	ND<0.010	ND<0.010	ND<0.010	---	0.050	ND<0.010	0.047	94	
Chloroethane	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Chloroform	ND<0.010	ND<0.010	ND<0.010	---	0.050	ND<0.010	0.051	102	
1-Chlorohexane	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
2-Chloroethyl vinyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Chloromethane	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Chloromethyl methyl ether	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Chlorotoluene	ND<0.010	ND<0.010	ND<0.010	---	---	ND<0.010	---	---	
Dibromochloromethane	ND<0.010	ND<0.010	ND<0.010	---	0.155	ND<0.010	0.150	97	

continued on next page

QUALITY CONTROL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB4-SS3-5-ITC

Compound	Blank	Duplicates			Spike Recovery				Notes
		C1	C2	RPD	SA	SR	SSR	PR	
Dibromomethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Dichlorodifluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
1,1-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.049	98	
1,2-Dichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.048	96	
1,1-Dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.045	90	
trans-1,2-dichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.049	98	
Dichloromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.055	110	
1,2-Dichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.048	96	
1,3-Dichloropropylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.045	ND< 0.010	0.045	100	
1,1,2,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	ND< 0.010	0.089	89	
1,1,1,2-Tetrachloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Tetrachloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.100	ND< 0.010	0.089	89	
1,1,1-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.070	140	
1,1,2-Trichloroethane	ND< 0.010	ND< 0.010	ND< 0.010	---	0.155	ND< 0.010	0.150	97	
Trichloroethylene	ND< 0.010	ND< 0.010	ND< 0.010	---	0.050	ND< 0.010	0.048	96	
Trichlorofluoromethane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Trichloropropane	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	
Vinyl chloride	ND< 0.010	ND< 0.010	ND< 0.010	---	---	ND< 0.010	---	---	

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

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
Page 5

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-5
Field Sample No. 3-ERA7-SB1-SS3-5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-3C

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB1-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroetnane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroetnylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroetnylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroetnylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroetnane	0.010	0.030	---	13.5	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 7

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-6
Field Sample No.* 3-ERA7-SB1-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

* - Sample bottle I.D.

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

*3-ERA7-SB1-SS6-20-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

* - Sample bottle I.D.

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-7
Field Sample No. 3-ERA7-SB2-SS4-7.5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB2-SS4-7.5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-8
Field Sample No. 3-ERA7-SB2-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/l)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB2-SS8-20-1

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No 36762-9
Field Sample No. 3-ERA7-SB3-SS3-5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB3-SS3-S-1[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-10
Field Sample No. 3-ERA7-SB3-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB3-SS8-20-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-11
Field Sample No. 3-ERA7-SB4-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB4-SS8-20-[illegible]

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	0.078	---	13.5	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-12
Field Sample No. 3-ERA7-SB4-SS3-5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB4-SS3-5-ITC

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Page 21

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-13 Duplicate
Field Sample No. 3-ERA7-SB4-SS3-5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	ND<0.010	---	---	---	
Bromoform	0.010	ND<0.010	---	---	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	ND<0.010	---	---	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	ND<0.010	---	---	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	ND<0.010	---	---	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	ND<0.010	---	---	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB4-SS3-5-ITC Duplicate

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	ND<0.010	---	---	---	
1,2-Dichloroethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethylene	0.010	ND<0.010	---	---	---	
trans-1,2-dichloroethylene	0.010	ND<0.010	---	---	---	
Dichloromethane	0.010	ND<0.010	---	---	---	
1,2-Dichloropropane	0.010	ND<0.010	---	---	---	
1,3-Dichloropropylene	0.010	ND<0.010	---	---	---	
1,1,2,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	ND<0.010	---	---	---	
1,1,1-Trichloroethane	0.010	ND<0.010	---	---	---	
1,1,2-Trichloroethane	0.010	ND<0.010	---	---	---	
Trichloroethylene	0.010	ND<0.010	---	---	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

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
Halogenated Volatile Organics
SW Method 8010

ES Job No. 56394
Client
Project AF Plant 42 IRP-II
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-14 Spike
Field Sample No. 3-ERA7-SB4-SS3-5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-7-86
QC Report No. 8010-30

Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/g)
/ / 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	0.010	ND<0.010	---	---	---	
Bis(2-Chloroethoxy)methane	0.010	ND<0.010	---	---	---	
Bis(2-chloroisopropyl)ether	0.010	ND<0.010	---	---	---	
Bromobenzene	0.010	ND<0.010	---	---	---	
Bromodichloromethane	0.010	0.051	---	14.3	---	
Bromoform	0.010	0.050	---	19.5	---	
Bromomethane	0.010	ND<0.010	---	---	---	
Carbon tetrachloride	0.010	0.051	---	13.8	---	
Chloroacetaldehyde	0.010	ND<0.010	---	---	---	
Chloral	0.010	ND<0.010	---	---	---	
Chlorobenzene	0.010	0.047	---	24.3	---	
Chloroethane	0.010	ND<0.010	---	---	---	
Chloroform	0.010	0.051	---	11.5	---	
1-Chlorohexane	0.010	ND<0.010	---	---	---	
2-Chloroethyl vinyl ether	0.010	ND<0.010	---	---	---	
Chloromethane	0.010	ND<0.010	---	---	---	
Chloromethyl methyl ether	0.010	ND<0.010	---	---	---	
Chlorotoluene	0.010	ND<0.010	---	---	---	
Dibromochloromethane	0.010	0.150	---	17.0	---	

Continued

ANALYTICAL RESULTS SUMMARY
Halogenated Volatile Organics
SW Method 8010

3-ERA7-SB4-SS3-5-ITC Soil

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	0.010	ND<0.010	---	---	---	
Dichlorodifluoromethane	0.010	ND<0.010	---	---	---	
1,1-Dichloroethane	0.010	0.049	---	10.4	---	
1,2-Dichloroethane	0.010	0.048	---	12.3	---	
1,1-Dichloroethylene	0.010	0.045	---	9.3	---	
trans-1,2-dichloroethylene	0.010	0.049	---	11.1	---	
Dichloromethane	0.010	0.055	---	6.6	---	
1,2-Dichloropropane	0.010	0.048	---	15.6	---	
1,3-Dichloropropylene	0.010	0.150	---	15.9	---	
1,1,2,2-Tetrachloroethane	0.010	0.089	---	21.6	---	
1,1,1,2-Tetrachloroethane	0.010	ND<0.010	---	---	---	
Tetrachloroethylene	0.010	0.089	---	21.6	---	
1,1,1-Trichloroethane	0.010	0.070	---	13.5	---	
1,1,2-Trichloroethane	0.010	0.150	---	17.0	---	
Trichloroethylene	0.010	0.048	---	16.4	---	
Trichlorofluoromethane	0.010	ND<0.010	---	---	---	
Trichloropropane	0.010	ND<0.010	---	---	---	
Vinyl chloride	0.010	ND<0.010	---	---	---	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

QUALITY CONTROL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

Lab Sample Nos. 3-ERA7-SB4-SS8-20-ITC
Duplicates 36762-9, 36762-10
Spike 36762-12
Sample Matrix:
/ / Water (ug/L)
/X/ Soil (ug/Kg)
/ / Other

QC Report No. 8020-25
Date Analyzed 5-16-86
Laboratory Supervisor Approval:

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Blank	Duplicates C1	Duplicates C2	RPD	Spike Recovery SA	Spike Recovery SR	Spike Recovery SSR	Spike Recovery PR	Notes
Benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.050	<0.005	0.034	68	
Chlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.032	60	
1,2-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.031	57	
1,3-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.056	<0.005	0.031	55	
1,4-Dichlorobenzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.053	<0.005	0.029	55	
Ethyl benzene	ND< 0.005	ND< 0.005	ND< 0.005	---	0.054	<0.005	0.033	61	
Toluene	ND< 0.005	0.005	ND< 0.005	~~---~~ 2	0.058	0.005	0.035	~~51~~ 2	
Xylenes (Dimethyl benzene)	ND< 0.005	0.020	ND< 0.005	~~---~~ 2	---	0.020	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-18
Field Sample No. 3-ERA7-SB1-SS3-5-IT
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-15-86
QC Report No. 8020-25

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

Dilution Factor N/A
Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	0.020	---	7.8*	---	
				8.0*		
				8.6*		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

* - Retention times for the 3 xylene isomers.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-19
Field Sample No. 3-ERA7-SB1-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-15-86
QC Report No. 8020-25

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-20
Field Sample No. 3-ERA7-SB2-SS4-7.5-[illegible]
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-15-86
QC Report No. 8020-25

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-21
Field Sample No. 3-ERA7-SB2-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-15-86
QC Report No. 8020-25

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

Dilution Factor N/A
Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	0.013	---	7.8*	---	
				8.0*		
				8.6*		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

* - Retention times for the 3 xylene isomers.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-6
Field Sample No. 3-ERA7-SB3-SS3-5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-16-86
QC Report No. 8020-25

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

Dilution Factor N/A
Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	0.009	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	0.006	---	7.8*	---	
				8.0*		
				8.6*		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

* - Rentention times for the 3 xylene isomers.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 55394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-7
Field Sample No. 3-ERA7-SB3-SS8-20-ITC
Date Collected 4-29-86
Date Received 4-30-86
Date Analyzed 5-16-86
QC Report No. 8020-25

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	0.005	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-8
Field Sample No. 3-ERA7-SB4-SS3-5-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-16-86
QC Report No. 8020-25

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

Dilution Factor N/A
Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	0.005	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	0.026	---	7.8*	---	
				8.0*		
				8.7*		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

* - Rentention times for the 3 xylene isomers.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-9
Field Sample No. 3-ERA7-SB4-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-16-86
QC Report No. 8020-25

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

Dilution Factor N/A
Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	0.005	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	0.020	---	7.8*	---	
				8.0*		
				8.7*		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

* - Rentention times for the 3 xylene isomers.

ANALYTICAL RESULTS SUMMARY
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-10 Duplicate
Field Sample No. 3-ERA7-SB4-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-16-86
QC Report No. 8020-25

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	ND<0.005	---	---	---	
Chlorobenzene	0.005	ND<0.005	---	---	---	
1,2-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,3-Dichlorobenzene	0.005	ND<0.005	---	---	---	
1,4-Dichlorobenzene	0.005	ND<0.005	---	---	---	
Ethyl benzene	0.005	ND<0.005	---	---	---	
Toluene	0.005	ND<0.005	---	---	---	
Xylenes (Dimethyl benzene)	0.005	ND<0.005	---	---	---	

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
Aromatic Volatile Organics
SW Method 8020

ES Job No. 56394
Client
Project AF Plant 42
Client No.
Laboratory Supervisor Approval:

Lab Sample No. 36762-11 Spike
Field Sample No. 3-ERA7-SB4-SS8-20-ITC
Date Collected 4-29-86
Date Received 5-1-86
Date Analyzed 5-18-86
QC Report No. 8020-25

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

Dilution Factor N/A
*Moisture %

Spike Source

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.005	0.034	---	2.5	---	
Chlorobenzene	0.005	0.032	---	7.8	---	
1,2-Dichlorobenzene	0.005	0.031	---	14.3	---	
1,3-Dichlorobenzene	0.005	0.031	---	12.8	---	
1,4-Dichlorobenzene	0.005	0.029	---	12.7	---	
Ethyl benzene	0.005	0.033	---	7.3	---	
Toluene	0.005	0.035	---	4.8	---	
Xylenes (Dimethyl benzene)	0.005	---	---	---	---	

END

DATE

FILMED

5-88

DTIC