Rockwell ER Program
Rocky Flats Plant

(06/02/89)

ER PROGRAM DATA ASSESSMENT SUMMARY REPORT FORM

Batch No. E89-0052 **Site** Area 2 - 881 Hillside

Laboratory 881 Rockwell **No. of Samples/Matrix** 14/Low Water

SOW # 10/86 (Rev. 8/87) **Reviewer Org.** TechLaw

Sample Numbers 9-74, 10-74, 56-86, 62-86, 69-86, 70-86, 2-87, 3-87, 4-87, 5-87, 8-87, 43-87, 45-87, 52-87.

Data Assessment Summary

		VOA	Comments
1.	Holding Times	V	
2.	GC/MS Tune/Instr. Perf.	V	
3.	Calibrations	A	Initial (4 TCL out) 2-butanone RRF<.05. Continuing (4 CCC out, 21 TCL out - total).
4.	Blanks	A	Methylene chloride, chloroform, and toluene contamination.
5.	Surrogates	A	Toluene and BFB out on 9-74 and 43-87
6.	Matrix Spike/Dup.	A	Toluene out by 2%, toluene out by 1%
7.	Other QC	A	1/12 Trip Blank contamination ((PCE)-J all + values), 2-butanone contamination.
8.	Internal Standards	V	
9.	Compound Identification	A	6 mass spectra missing. (data requested, chemist on vacation) 43-87 value for PCE estimated (J).
10.	System Performance	A	Blank contamination, Toluene and BFB surrogates out.
11.	Overall Assessment	A	Data acceptable, with qualification.

V = Data had no problems.
A = Data acceptable but qualified due to problems.
R = Data rejected, unusable.
X = Problems, but do not affect data.

Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged. (Refer to attached Results Summary Table).

"REVIEWED FOR CLASSIFICATION
By R. B. Hoffman (4)
Date 7-11-90

REVIEWED FOR CLASSIFICATION/UCNI
By George H. Setlock
Date (4) 6/27/90

ADMIN RECORD

A-OU01-000025

Action Items: (1) Initial Calibration - 2-butanone, positive values are estimated (J) and non-detect values are rejected (R) for all samples because the average RRF was <.05. Bromomethane, positive values are estimated (J) and non-detect values are rejected (R) for samples 2-87, 69-86, 4-87, 4-87D, 10-74, 10-74X5 dilution, 56-86, 56-86D, 70-86, 5-87, 52-87, 52-87D, and the associated Trip and Field Blanks because the % Relative Standard Deviation exceeded 50%.

(2) Continuing Calibration - chloromethane and chloroethane positive values are estimated (J) and non-detects are rejected (R) for samples 2-87, 69-86, 4-87, 4-87D, and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%; bromomethane and chloromethane positive values are estimated (J) and non-detects are rejected (R) for samples 10-74, 10-74X5 dilution, 56-86, 56-86D, 70-86, 5-87, 52-87, 52-87D and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%; chloromethane and vinyl chloride positive values are estimated (J) and non-detects are rejected (R) for samples 3-87, 8-87, 62-87, 45-87 and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%; vinyl chloride positive values are estimated (J) and non-detects are rejected (R) for samples 9-74, 9-74X100 dilution, 43-87, 43-87X100 dilution, and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%. Positive values for carbon tetrachloride are estimated (J) for samples 4-87, 4-87D, and 10-74X5 dilution because the % difference between the initial and continuing calibration was >25%. CCC (1,1-dichloroethene and 1,2 dichloropropane) percent difference values were >25% for the continuing calibration run on 1/17/89. CCC (vinyl chloride) percent difference values were >25% for the continuing calibrations run on 1/25/89 and 1/26/89.

(3) Blanks - methylene chloride, toluene and chloroform values were quantitated in all Reagent Blanks. As a result, all positive values in the samples for these parameters are undetected and estimated (UJ). Methylene chloride, toluene and chloroform, were not detected in samples 10-74X5 dilution, 9-74X100 dilution and 43-87X100 dilution, therefore, no action was taken.

(4) Surrogates - surrogate criteria for BFB and toluene were exceeded for samples 9-74 and 43-87. All positive values for these samples are estimated (J) and all non-detects are undetected and estimated (UJ).

(5) Other QC - tetrachloroethene contamination at 35 ug/l found in the Trip Blank for samples collected on

1/12/89. All positive tetrachloroethene values are estimated (J) for samples 2-87, 4-87, and 4-87D.

(6) Compound Identification - the tetrachloroethene value for sample 43-87X100 dilution is currently estimated due to a missing tetrachloroethene MS spectra for the sample. Upon receipt of the spectra the result will be reevaluated and the results updated on the Data Validation Summary Table. Carbon tetrachloride values for sample 62-87, trichloroethene values for 2-87, and tetrachloroethene values for samples 4-87, 4-87D, 1/16/89 Trip Blank, 10-74, 52-87, and 52-87D are estimated (J) because instrument quantitation limits are not yet available from the laboratory.

Comments: Samples that do not meet surrogate recoveries are not currently being reanalyzed. Reagent Blank and Trip Blank contamination present. Instrument quantitation limits have not been supplied by laboratory to evaluate values less than the method detection limits. All values below method detection limits will be estimated (J) and quantified as acceptable until the quantitation limits are supplied.

Note: Worksheets and data summary forms are attached.

Robert J. Shellso — 06/02/89

Reviewer Signature — Date

TABLE #: 1-E88-0052 **Page** 1 **of** 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water **ANALYTICAL RESULTS (ppb)**

Sample Location		RGNTB	TRIP BLANK		FIELD BLANK		2-87		69-86		4-87		D4-87		
Sample Number															
Sampling Date			1/12/89		1/12/89		1/12/89		1/12/89		1/12/89		1/12/89		
Remarks															
Volatile Organic Compound	Detection Limit (ppb)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)	(DQ)
Chloromethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
Bromomethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
Vinyl Chloride	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Chloroethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
Methylene Chloride	5	4 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	
Acetone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Carbon Disulfide	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,1-Dichloroethene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,1-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,2-Dichloroethene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Chloroform	5	6 ppb	5 UJ	A	5 UJ	V	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	
1,2-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
2-Butanone	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
1,1,1-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Carbon Tetrachloride	5		5 U	V	5 U	V	5 U	V	5 U	V	11 J	A	11 J	A	
Vinyl Acetate	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Bromodichloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,2-Dichloropropane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
cis-1,3 Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Trichloroethene	5		5 U	V	5 U	V	2 J	A	5 U	V	99	V	98	V	
Dibromochloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,1,2-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Benzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Trans-1,3-Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Bromoform	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
4-Methyl-2-pentanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
2-Hexanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Tetrachloroethene	5		34	V	5 U	V	35 J	A	5 U	V	5 J	A	5 J	A	
1,1,2,2-Tetrachloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Toluene	5	3 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	
Chlorobenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Ethylbenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Styrene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Xylene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Total volatile organic concentration (ppb)		13	34		0		37		0		115		114		0

U Indicates the compound was not detected above the Required Quantitation Limit.
J Quantitation is approximate due to limitations identified during the quality control review (data validation).
* Value is rejected due to other contractual criteria examined during the quality control review (data validation).
** Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

TABLE #: 1-E88-0052 **Page** 2 **of** 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water **ANALYTICAL RESULTS (ppb)**

Sample Location		RGNTB	TRIP BLANK		FIELD BLANK		10-74		56-86		56-86D		70-86		5-87	
Sample Number																
Sampling Date			1/16/89		1/16/89		1/16/89		1/16/89		1/16/89		1/16/89		1/16/89	
Remarks																
Volatile Organic Compound	Detection Limit (ppb)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)
Chloromethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
Bromomethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
Vinyl Chloride	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Chloroethane	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Methylene Chloride	5	5 ppb	8 UJ	A	7 UJ	A	6 UJ	A	6 UJ	A	5 UJ	A	6 UJ	A	5 UJ	A
Acetone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Carbon Disulfide	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloroethene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Chloroform	5	8 ppb	5 UJ	A	5 UJ	A	22 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
1,2-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
2-Butanone	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
1,1,1-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Carbon Tetrachloride	5		5 U	V	5 U	V	660 E	A	5 U	V	5 U	V	5 U	V	5 U	V
Vinyl Acetate	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Bromodichloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloropropane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
cis-1,3 Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Trichloroethene	5		5 U	V	5 U	V	410 E	A	5 U	V	5 U	V	5 U	V	5 U	V
Dibromochloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,1,2-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Benzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Trans-1,3-Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Bromoform	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
4-Methyl-2-pentanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
2-Hexanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Tetrachloroethene	5		2 J	A	5 U	V	2 J	A	5 U	V	5 U	V	5 U	V	5 U	V
1,1,2,2-Tetrachloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Toluene	5	3 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
Chlorobenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Ethylbenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Styrene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Xylene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Total volatile organic concentration (ppb)		16	2		0		1072		0		0		0		0	

U Indicates the compound was not detected above the Required Quantitation Limit.
J Quantitation is approximate due to limitations identified during the quality control review (data validation).
* Value is rejected due to other contractual criteria examined during the quality control review (data validation).
** Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

TABLE #: 1-E88-0052 **Page** 3 **of** 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water **ANALYTICAL RESULTS (ppb)**

Sample Location		52-87		D-52-87		10-74 R		RGNTB	TRIP BLANK		FIELD BLANK		3-87		8-87	
Sample Number						X5										
Sampling Date		1/16/89		1/16/89		1/16/89			1/23/89		1/23/89		1/23/89		1/23/89	
Remarks																
Volatile Organic Compound	Detection Limit (ppb)		(DQ)		(DQ)		(DQ)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)
Chloromethane	10	10 U	R	10 U	R	10 U	R		10 U	R	10 U	R	10 U	R	10 U	R
Bromomethane	10	10 U	R	10 U	R	10 U	R		10 U	V	10 U	V	10 U	V	10 U	V
Vinyl Chloride	10	10 U	V	10 U	V	10 U	V		10 U	R	10 U	R	10 U	R	10 U	R
Chloroethane	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Methylene Chloride	5	6 UJ	A	6 UJ	A	5 U	V	7 ppb	48 UJ	A	37 UJ	A	7 UJ	A	5 U	V
Acetone	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Carbon Disulfide	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloroethene (Total)	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Chloroform	5	5 UJ	A	5 UJ	A	5 U	V	9 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
1,2-Dichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
2-Butanone	10	10 U	R	10 U	R	10 U	R		72 J	A	26 J	A	10 U	R	10 U	R
1,1,1-Trichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Carbon Tetrachloride	5	5 U	V	5 U	V	810 J	A		5 U	V	5 U	V	5 U	V	5 U	V
Vinyl Acetate	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Bromodichloromethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloropropane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
cis-1,3 Dichloropropene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Trichloroethene	5	5 U	V	5 U	V	340	V		5 U	V	5 U	V	5 U	V	5 U	V
Dibromochloromethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1,2-Trichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Benzene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Trans-1,3-Dichloropropene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Bromoform	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
4-Methyl-2-pentanone	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
2-Hexanone	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Tetrachloroethene	5	1 J	A	2 J	A	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1,2,2-Tetrachloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Toluene	5	5 UJ	A	5 UJ	A	5 U	V	4 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
Chlorobenzene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Ethylbenzene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Styrene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Xylene (Total)	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Total volatile organic concentration (ppb)		1		2		1150		20	72		26		0		0	

U Indicates the compound was not detected above the Required Quantitation Limit.
J Quantitation is approximate due to limitations identified during the quality control review (data validation).
* Value is rejected due to other contractual criteria examined during the quality control review (data validation).
** Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

TABLE #: 1-E88-0052 **Page** 4 **of** 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water **ANALYTICAL RESULTS (ppb)**

Sample Location		62-87		45-87		RGNTB	TRIP BLANK		FIELD BLANK		9-74		9-74		43-87	
Sample Number													X100			
Sampling Date		1/23/89		1/23/89			1/25/89		1/25/89		1/25/89		1/25/89		1/25/89	
Remarks																
Volatile Organic Compound	Detection Limit (ppb)		(DQ)		(DQ)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)
Chloromethane	10	10 U	R	10 U	R		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Bromomethane	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Vinyl Chloride	10	10 U	R	10 U	R		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
Chloroethane	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Methylene Chloride	5	5 U	V	5 U	V	7 ppb	6 UJ	A	5 UJ	A	5 UJ	A	5 U	V	5 UJ	A
Acetone	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Carbon Disulfide	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
1,1-Dichloroethene	5	5 U	V	5 U	V		5 U	V	5 U	V	7200 E	A	5300	V	4300 E	A
1,1-Dichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	180 J	A	5 U	V	150 J	A
1,2-Dichloroethene (Total)	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Chloroform	5	5 UJ	A	5 UJ	A	8 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 U	V	5 UJ	A
1,2-Dichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	17 J	A	5 U	V	16 J	A
2-Butanone	10	10 U	R	10 U	R		5 J	A	10 U	R	10 U	R	10 U	R	10 U	R
1,1,1-Trichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	4700 E	A	10000	V	5200 E	A
Carbon Tetrachloride	5	2 J	A	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Vinyl Acetate	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Bromodichloromethane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
1,2-Dichloropropane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
cis-1,3 Dichloropropene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Trichloroethene	5	5 U	V	5 U	V		5 U	V	5 U	V	2800 E	A	7900	V	2800 E	A
Dibromochloromethane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
1,1,2-Trichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	39 J	A	5 U	V	29 J	A
Benzene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Trans-1,3-Dichloropropene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Bromoform	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
4-Methyl-2-pentanone	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
2-Hexanone	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Tetrachloroethene	5	5 U	V	5 U	V		5 U	V	5 U	V	780 E	A	5 U	V	1400 E	A
1,1,2,2-Tetrachloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	V	5 U	V	5 UJ	A
Toluene	5	5 UJ	A	5 UJ	A	4 ppb	5 UJ	A	5 UJ	A	8 UJ	A	5 U	V	9 UJ	A
Chlorobenzene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	V	5 U	V	5 UJ	A
Ethylbenzene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Styrene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Xylene (Total)	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Total volatile organic concentration (ppb)		2		0		19	0		0		15716		23200		15245	

U Indicates the compound was not detected above the Required Quantitation Limit.
J Quantitation is approximate due to limitations identified during the quality control review (data validation).
* Value is rejected due to other contractual criteria examined during the quality control review (data validation).
** Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

TABLE #: 1-E88-0052 **Page** 5 **of** 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water **ANALYTICAL RESULTS (ppb)**

Sample Location		43-87								
Sample Number		X100								
Sampling Date		1/25/89								
Remarks										
Volatile Organic Compound	Detection Limit (ppb)		(DQ)	(DQ)	(DQ)	(DQ)	(DQ)	(DQ)	(DQ)	(DQ)
Chloromethane	10	10 U	V							
Bromomethane	10	10 U	V							
Vinyl Chloride	10	10 U	R							
Chloroethane	10	10 U	V							
Methylene Chloride	5	5 U	V							
Acetone	10	10 U	V							
Carbon Disulfide	5	5 U	V							
1,1-Dichloroethene	5	6300	V							
1,1-Dichloroethane	5	180	V							
1,2-Dichloroethene (Total)	5	5 U	V							
Chloroform	5	5 U	V							
1,2-Dichloroethane	5	5 U	V							
2-Butanone	10	10 U	R							
1,1,1-Trichloroethane	5	15000	V							
Carbon Tetrachloride	5	5 U	V							
Vinyl Acetate	10	10 U	V							
Bromodichloromethane	5	5 U	V							
1,2-Dichloropropane	5	5 U	V							
cis-1,3 Dichloropropene	5	5 U	V							
Trichloroethene	5	11000	V							
Dibromochloromethane	5	5 U	V							
1,1,2-Trichloroethane	5	5 U	V							
Benzene	5	5 U	V							
Trans-1,3-Dichloropropene	5	5 U	V							
Bromoform	5	5 U	V							
4-Methyl-2-pentanone	10	10 U	V							
2-Hexanone	10	10 U	V							
Tetrachloroethene	5	3400 J	A							
1,1,2,2-Tetrachloroethane	5	5 U	V							
Toluene	5	5 U	V							
Chlorobenzene	5	5 U	V							
Ethylbenzene	5	5 U	V							
Styrene	5	5 U	V							
Xylene (Total)	5	5 U	V							
Total volatile organic concentration (ppb)		35880								

U Indicates the compound was not detected above the Required Quantitation Limit.
J Quantitation is approximate due to limitations identified during the quality control review (data validation).
* Value is rejected due to other contractual criteria examined during the quality control review (data validation).
** Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

Enclosure (2) to Rockwell
letter WL1 dated 5/17/89,
page 1 of 393.

GENERAL LABORATORY

AREA 2 - 881 HILLSIDE

Laboratory Data

First Quarter 1989 (E89-0052)

ROCKWELL INTERNATIONAL
AEROSPACE OPERATIONS
ROCKY FLATS PLANT
P.O. BOX 464
GOLDEN, COLORADO 80402-0464

APPROVED BY: _____
J. A. Blair
Sr. Analytical
Chemist

APPROVED BY: _____
M. W. Hume
QC/QA
Administrator

APPROVED BY: _____
T. H. Elmont
Manager,
General Chemistry

DISTRIBUTION:
K. Wegner (2)
C. L. Sundblad
File

FIRST QUARTER 1989 GROUNDWATER MONITORING WELL REPORT

This enclosure contains the GCMS laboratory data for Area 2, 881 Hillside, of the first quarter 1989 groundwater monitoring wells. Thirty-four wells were checked for this area in the first quarter. A total of fourteen wells were actually sampled with nineteen wells coming up dry. Well 59-86 was not sampled due to a broken casing. Table 1 contains a listing of the wells sampled as well as the dry wells.

Trip and field blanks were picked up four times in this area of sampling. A field duplicate well, labeled 56-86D, was also sampled for this area.

GCMS analyzes for the Hazardous Substance List (HSL) of volatile organics. This report summarizes the analytical results with no attempt to assess the levels of the analytes found.

The sampling for groundwater monitoring wells is performed by the General Laboratory personnel. The sampling outline is contained in the Sampling Procedure for the Groundwater Monitoring Program L-procedure. The sample logging and tracking system is outlined in the Sample Administration-General Laboratory L-procedure.

Two different types of blanks for QA are picked up in the field and submitted as actual samples. These include a trip blank which consists of sample bottles filled with deionized water in the lab, sealed and transported into and out of the field during sampling. This is referred to as Trip Bl in this report. A field blank consists of a deionized water rinse of the sample equipment after it has been cleaned and rinsed in the field at a well location that was sampled that day. This is referred to as Field Bl in this report. This was previously referred to as an Equipment Blank. A duplicate well is a second full set of sample bottles that are filled at a well after the original sampling. This field dulpicate well is refered to as the well number followed by a "D" in this report.

TABLE 1

WELLS SAMPLED FOR AREA 2 OF 1ST QUARTER 1989

Sampled	Dry
9-74	16-74
10-74	57-86
56-86	58-86
62-86	61-86
69-86	63-86
70-86	64-86
2-87	65-86
3-87	68-86
4-87	1-87
5-87	6-87
8-87	44-87
43-87*	47-87
45-87	48-87
52-87	49-87
	50-87
	51-87
	53-87
	54-87
	55-87
	59-86**

* VOAS ONLY COLLECTED
** CASING BROKE

E89-0052

VOLATILE ORGANIC ANALYSES

This section contains the Volatile Organic Analysis results. These analyses were performed in accordance with procedures found in the STATEMENT OF WORK FOR ORGANIC ANALYSES, 2/88 Rev., U.S.E.P.A. Contract Laboratory Program. All sample results and quality control data are reported using the forms and format as specified in the STATEMENT OF WORK. Tentatively Identified Compounds (TIC's) are not being identified or quantitated as per RCRA Office instructions.

Trip blanks, field blanks, and method blanks have occasionally contained small amounts of methylene chloride, toluene, chloroform, and 2-butanone. The presence of these compounds is reported.

Sample names are in some cases modified with the following prefixes or suffixes :

TRIP BL - TRIP BLANK

FIELD BL - FIELD BLANK

LB - DAILY LAB BLANK

CC - DAILY CALIBRATION CHECK

BFB - DAILY INSTRUMENT TUNE CHECK

MS - MATRIX SPIKE

MSD - MATRIX SPIKE DUPLICATE

SOP WORK SHEETS FOR VOLATILES

HOLDING TIMES

SAMPLE NO *	PRESERVED YES	PRESERVED NO	CONC LEVEL / MATRIX	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D.	CONTRACT HOLDING TIME MET YES	CONTRACT HOLDING TIME MET NO	40 CFR 136 HOLDING TIME MET YES	40 CFR 136 HOLDING TIME MET NO	ACTION
Trip B1			low	1/12/89	1/12/89	1/17/89	10:31	Extrel	X		Y		none
Field B1							11:00						
2-87							11:29						
69-86							11:58						
4-87							12:27						
D 4-87							12:56						
4-87MS							13:25						
4-87MSD							13:54						
Trip B1				1/16/89	1/16/89	1/19/89	10:30						
Field B1							11:01						
10-74							11:30						
56-86							11:59						
56-86 D							12:27						
70-86							12:56						
5-87							13:25						
52-87							13:54						
D52-87							14:22						
52-87MS							14:51						
52-87MSD							15:20						
10-74X5							16:00						

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR VOLATILES

HOLDING TIMES

SAMPLE NO *	PRESERVED YES	PRESERVED NO	CONC. LEVEL / MATRIX	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D.	CONTRACT HOLDING TIME MET YES	CONTRACT HOLDING TIME MET NO	40 CFR 136 HOLDING TIME MET YES	40 CFR 136 HOLDING TIME MET NO	ACTION
Trip Bl			Low	1/23/89	1/23/89	1/25/89	13:11	Eytel	X		X		none
Field Bl							13:44						
~~10-74~~ 3-87							14:13						
8-87							14:42						
62-87							15:12						
45-87							15:41						
Trip Bl				1/25/89	1/25/89	1/26/89	13:39						
Field Bl							14:11						
9-74							14:41						
43-87							15:30						
43-87x100							16:55						
9-74x100													

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1703

Level: (low/med) LOW Date Received: 1/12/89

% Moisture: not dec. 100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	R
75-09-2	Methylene Chloride	54.	BJ U	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJ U	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	34.		V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJ U	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1704

Level: (low/med) LOW Date Received: 1/12/89

% Moisture: not dec. 100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-00525AS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1705

Level: (low/med) LOW Date Received: 1/12/89

% Moisture: not dec.100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	R
75-09-2	Methylene Chloride	54.	BJ U	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJ J	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	2.	J	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	35.	J	A-FB contamination
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJ U	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

69-86

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1706

Level: (low/med) LOW Date Received: 1/12/89

% Moisture: not dec. 100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	R
75-09-2	Methylene Chloride	5.	BJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJ	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1707

Level: (low/med) LOW Date Received: 1/12/89

% Moisture: not dec. 100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	R
75-09-2	Methylene Chloride	5.	BJU	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	5.	BJU	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	11.	J	A
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	99.		V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.		KJA-PP cont.
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJU	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1708

Level: (low/med) LOW Date Received: 1/12/89

% Moisture: not dec. 100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	~~UR~~	R
74-83-9	Bromomethane	10.	~~U~~	~~UR~~
75-01-4	Vinyl Chloride	10.	~~UR~~	R
75-00-3	Chloroethane	10.	~~U~~	~~UR~~
75-09-2	Methylene Chloride	5.	BJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	5.	BJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	~~UR~~	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	11.	J	~~UA~~
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	98.		V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.		V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	8.5 U	BJ	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1901

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		G
74-87-3	Chloromethane	10.	U R	R
74-83-9	Bromomethane	10.	U R	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	8.	B UJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJ V	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U R	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	2.	J	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJ V	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1902

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	V
[illegible]	Methylene Chloride	7.	B UJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
[illegible]	1,2-Dichloroethene (total)	5.	U	V
[illegible]	Chloroform	53.	BJ U	A
[illegible]-66-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	~~10.~~ 5	~~U~~	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
[illegible]-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
[illegible]-0	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJ U	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

10-74

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN190S

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	6.	B UJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	22.	B UJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	660.	E J	A
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	410.	E	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	2.	J	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJV	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

56-86

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1904

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	6.	B VJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJV	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	UR	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJV	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

56-86D

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1905

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	5.	BVJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJVJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJV	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

70-86

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1906

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	✓
75-00-3	Chloroethane	10.	U	✓
75-09-2	Methylene Chloride	6.	B U5	A
67-64-1	Acetone	10.	U	✓
75-15-0	Carbon Disulfide	5.	U	✓
75-35-4	1,1-Dichloroethene	5.	U	✓
75-34-3	1,1-Dichloroethane	5.	U	✓
540-59-0	1,2-Dichloroethene (total)	5.	U	✓
67-66-3	Chloroform	52.	BJ ✓	A
107-06-2	1,2-Dichloroethane	5.	U	✓
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	✓
56-23-5	Carbon Tetrachloride	5.	U	✓
108-05-4	Vinyl Acetate	10.	U	✓
75-27-4	Bromodichloromethane	5.	U	✓
78-87-5	1,2-Dichloropropane	5.	U	✓
10061-01-5	cis-1,3-Dichloropropene	5.	U	✓
79-01-6	Trichloroethene	5.	U	✓
124-48-1	Dibromochloromethane	5.	U	✓
79-00-5	1,1,2-Trichloroethane	5.	U	✓
71-43-2	Benzene	5.	U	✓
10061-02-6	trans-1,3-Dichloropropene	5.	U	✓
75-25-2	Bromoform	5.	U	✓
108-10-1	4-Methyl-2-Pentanone	10.	U	✓
591-78-6	2-Hexanone	10.	U	✓
127-18-4	Tetrachloroethene	5.	U	✓
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	✓
108-88-3	Toluene	5 3.	BJ ✓	A
108-90-7	Chlorobenzene	5.	U	✓
100-41-4	Ethylbenzene	5.	U	✓
100-42-5	Styrene	5.	U	✓
1330-20-7	Xylenes (total)	5.	U	✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

5-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1907

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	5.	B UJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJ U	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	~~10.~~	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJ V	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

52-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1908

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	✓
75-00-3	Chloroethane	10.	U	✓
75-09-2	Methylene Chloride	6.	BVJ	A
67-64-1	Acetone	10.	U	✓
75-15-0	Carbon Disulfide	5.	U	✓
75-35-4	1,1-Dichloroethene	5.	U	✓
75-34-3	1,1-Dichloroethane	5.	U	✓
540-59-0	1,2-Dichloroethene (total)	5.	U	✓
67-66-3	Chloroform	52.	BJU	A
107-06-2	1,2-Dichloroethane	5.	U	✓
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	✓
56-23-5	Carbon Tetrachloride	5.	U	✓
108-05-4	Vinyl Acetate	10.	U	✓
75-27-4	Bromodichloromethane	5.	U	✓
78-87-5	1,2-Dichloropropane	5.	U	✓
10061-01-5	cis-1,3-Dichloropropene	5.	U	✓
79-01-6	Trichloroethene	5.	U	✓
124-48-1	Dibromochloromethane	5.	U	✓
79-00-5	1,1,2-Trichloroethane	5.	U	✓
71-43-2	Benzene	5.	U	✓
10061-02-6	trans-1,3-Dichloropropene	5.	U	✓
75-25-2	Bromoform	5.	U	✓
108-10-1	4-Methyl-2-Pentanone	10.	U	✓
591-78-6	2-Hexanone	10.	U	✓
127-18-4	Tetrachloroethene	1.	J	✓
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	✓
108-88-3	Toluene	53.	BJU	A
108-90-7	Chlorobenzene	5.	U	✓
100-41-4	Ethylbenzene	5.	U	✓
100-42-5	Styrene	5.	U	✓
1330-20-7	Xylenes (total)	5.	U	✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

52-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1909

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	R
75-01-4	Vinyl Chloride	10.	U	V
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	6.	B UJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	U	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	2.	J	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	53.	BJ	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

10-74

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1912

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	50.	U	R
74-83-9	Bromomethane	50.	U	R
75-01-4	Vinyl Chloride	50.	U	V
75-00-3	Chloroethane	50.	U	V
75-09-2	Methylene Chloride	25.	U	A V
67-64-1	Acetone	50.	U	V
75-15-0	Carbon Disulfide	25.	U	V
75-35-4	1,1-Dichloroethene	25.	U	V
75-34-3	1,1-Dichloroethane	25.	U	V
540-59-0	1,2-Dichloroethene (total)	25.	U	V
67-66-3	Chloroform	25.	U	V
107-06-2	1,2-Dichloroethane	25.	U	V
78-93-3	2-Butanone	50.	U	R
71-55-6	1,1,1-Trichloroethane	25.	U	V
56-23-5	Carbon Tetrachloride	810.	J	A
108-05-4	Vinyl Acetate	50.	U	V
75-27-4	Bromodichloromethane	25.	U	V
78-87-5	1,2-Dichloropropane	25.	U	V
10061-01-5	cis-1,3-Dichloropropene	25.	U	V
79-01-6	Trichloroethene	340.		V
124-48-1	Dibromochloromethane	25.	U	V
79-00-5	1,1,2-Trichloroethane	25.	U	V
71-43-2	Benzene	25.	U	V
10061-02-6	trans-1,3-Dichloropropene	25.	U	V
75-25-2	Bromoform	25.	U	V
108-10-1	4-Methyl-2-Pentanone	50.	U	V
591-78-6	2-Hexanone	50.	U	V
127-18-4	Tetrachloroethene	25.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	25.	U	V
108-88-3	Toluene	25.	U	A V
108-90-7	Chlorobenzene	25.	U	V
100-41-4	Ethylbenzene	25.	U	V
100-42-5	Styrene	25.	U	V
1330-20-7	Xylenes (total)	25.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2501

Level: (low/med) LOW Date Received: 1/23/89

% Moisture: not dec. 100. Date Analyzed: 1/25/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	V
75-01-4	Vinyl Chloride	10.	U	R
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	48.	BUJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	52.	BJU	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	72.	J	A
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	54.	BJU	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2502

Level: (low/med) LOW Date Received: 1/23/89

% Moisture: not dec. 100. Date Analyzed: 1/25/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10.	U	R
74-83-9	Bromomethane	10.	U	V
75-01-4	Vinyl Chloride	10.	U	R
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	37.	BUJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	53.	BJU	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	26.	J	A
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	54.	BJV	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2503

Level: (low/med) LOW Date Received: 1/23/89

% Moisture: not dec. 100. Date Analyzed: 1/25/89

Column: (pack/cap) CAP Dilution Factor: 1.00

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

8-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2504

Level: (low/med) LOW Date Received: 1/23/89

% Moisture: not dec. 100. Date Analyzed: 1/25/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	NR	R
74-83-9	Bromomethane	10.	U	V
75-01-4	Vinyl Chloride	10.	NR	R
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	5.	U	V
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	2.5	BJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	NR	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	5.	BJ	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2505

Level: (low/med) LOW Date Received: 1/23/89

% Moisture: not dec. 100. Date Analyzed: 1/25/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.	UR	R
74-83-9	Bromomethane	10.	U	V
75-01-4	Vinyl Chloride	10.	UR	R
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	5.	U	V
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	3.5J	BJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	UR	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	2.	J	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	8.5J	BJ	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

45-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2506

Level: (low/med) LOW Date Received: 1/23/89

% Moisture: not dec. 100. Date Analyzed: 1/25/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10.	UR	R
74-83-9	Bromomethane	10.	U	✓
75-01-4	Vinyl Chloride	10.	UR	R
75-00-3	Chloroethane	10.	U	✓
75-09-2	Methylene Chloride	5.	U	✓
67-64-1	Acetone	10.	U	✓
75-15-0	Carbon Disulfide	5.	U	✓
75-35-4	1,1-Dichloroethene	5.	U	✓
75-34-3	1,1-Dichloroethane	5.	U	✓
540-59-0	1,2-Dichloroethene (total)	5.	U	✓
67-66-3	Chloroform	2.5 ✓	BJS	D
107-06-2	1,2-Dichloroethane	5.	U	✓
78-93-3	2-Butanone	10.	UR	R
71-55-6	1,1,1-Trichloroethane	5.	U	✓
56-23-5	Carbon Tetrachloride	5.	U	✓
108-05-4	Vinyl Acetate	10.	U	✓
75-27-4	Bromodichloromethane	5.	U	✓
78-87-5	1,2-Dichloropropane	5.	U	✓
10061-01-5	cis-1,3-Dichloropropene	5.	U	✓
79-01-6	Trichloroethene	5.	U	✓
124-48-1	Dibromochloromethane	5.	U	✓
79-00-5	1,1,2-Trichloroethane	5.	U	✓
71-43-2	Benzene	5.	U	✓
10061-02-6	trans-1,3-Dichloropropene	5.	U	✓
75-25-2	Bromoform	5.	U	✓
108-10-1	4-Methyl-2-Pentanone	10.	U	✓
591-78-6	2-Hexanone	10.	U	✓
127-18-4	Tetrachloroethene	5.	U	✓
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	✓
108-88-3	Toluene	2.5 ✓	BJS	D
108-90-7	Chlorobenzene	5.	U	✓
100-41-4	Ethylbenzene	5.	U	✓
100-42-5	Styrene	5.	U	✓
1330-20-7	Xylenes (total)	5.	U	✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2601

Level: (low/med) LOW Date Received: 1/25/89

% Moisture: not dec. 100. Date Analyzed: 1/26/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10.	U	V
74-83-9	Bromomethane	10.	U	V
75-01-4	Vinyl Chloride	10.	UR	R
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	6.5	BJ	B
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	3.5	BJ	B
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	18.5	J	B
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	4.5	BJ	B
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BL

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-00525AS No.. SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2602

Level: (low/med) LOW Date Received: 1/25/89

% Moisture: not dec. 100. Date Analyzed: 1/26/89

Column: (pack/cap) CAP Dilution Factor: 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L		G
74-87-3	Chloromethane	10.	U	V
74-83-9	Bromomethane	10.	U	V
75-01-4	Vinyl Chloride	10.	UR	R
75-00-3	Chloroethane	10.	U	V
75-09-2	Methylene Chloride	5.	UJ	A
67-64-1	Acetone	10.	U	V
75-15-0	Carbon Disulfide	5.	U	V
75-35-4	1,1-Dichloroethene	5.	U	V
75-34-3	1,1-Dichloroethane	5.	U	V
540-59-0	1,2-Dichloroethene (total)	5.	U	V
67-66-3	Chloroform	5	UJ	A
107-06-2	1,2-Dichloroethane	5.	U	V
78-93-3	2-Butanone	10.	UR	R
71-55-6	1,1,1-Trichloroethane	5.	U	V
56-23-5	Carbon Tetrachloride	5.	U	V
108-05-4	Vinyl Acetate	10.	U	V
75-27-4	Bromodichloromethane	5.	U	V
78-87-5	1,2-Dichloropropane	5.	U	V
10061-01-5	cis-1,3-Dichloropropene	5.	U	V
79-01-6	Trichloroethene	5.	U	V
124-48-1	Dibromochloromethane	5.	U	V
79-00-5	1,1,2-Trichloroethane	5.	U	V
71-43-2	Benzene	5.	U	V
10061-02-6	trans-1,3-Dichloropropene	5.	U	V
75-25-2	Bromoform	5.	U	V
108-10-1	4-Methyl-2-Pentanone	10.	U	V
591-78-6	2-Hexanone	10.	U	V
127-18-4	Tetrachloroethene	5.	U	V
79-34-5	1,1,2,2-Tetrachloroethane	5.	U	V
108-88-3	Toluene	4.5	BUJ	A
108-90-7	Chlorobenzene	5.	U	V
100-41-4	Ethylbenzene	5.	U	V
100-42-5	Styrene	5.	U	V
1330-20-7	Xylenes (total)	5.	U	V

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9-74

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5 (g/mL) ML Lab File ID: JAN2603

Level: (low/med) LOW Date Received: 1/25/89

% Moisture: not dec. 100. Date Analyzed: 1/26/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10. UJ	UR	A
74-83-9	Bromomethane	10. UJ	UR	A
75-01-4	Vinyl Chloride	10.	UR	R
75-00-3	Chloroethane	10. UJ	U	A
75-09-2	Methylene Chloride	5. UJ	U	A
67-64-1	Acetone	10. UJ	U	A
75-15-0	Carbon Disulfide	5. UJ	U	A
75-35-4	1,1-Dichloroethene	7200. J	E	EA
75-34-3	1,1-Dichloroethane	180. J		A
540-59-0	1,2-Dichloroethene (total)	5. UJ	U	A
67-66-3	Chloroform	4.5 J	BJ	A
107-06-2	1,2-Dichloroethane	17.	J	A
78-93-3	2-Butanone	10.	UR	R
71-55-6	1,1,1-Trichloroethane	4700. J	E	EA
56-23-5	Carbon Tetrachloride	5. UJ	U	A
108-05-4	Vinyl Acetate	10. UJ	U	A
75-27-4	Bromodichloromethane	5. UJ	U	A
78-87-5	1,2-Dichloropropane	5. UJ	U	A
10061-01-5	cis-1,3-Dichloropropene	5. UJ	U	A
79-01-6	Trichloroethene	2800. J	E	EA
124-48-1	Dibromochloromethane	5. UJ	U	A
79-00-5	1,1,2-Trichloroethane	39. J		A
71-43-2	Benzene	5. UJ	U	A
10061-02-6	trans-1,3-Dichloropropene	5. UJ	U	A
75-25-2	Bromoform	5. UJ	U	A
108-10-1	4-Methyl-2-Pentanone	10. UJ	U	A
591-78-6	2-Hexanone	10. UJ	U	A
127-18-4	Tetrachloroethene	780.	E	EA
79-34-5	1,1,2,2-Tetrachloroethane	5. UJ	U	A
108-88-3	Toluene	8.	UJ	A
108-90-7	Chlorobenzene	5. UJ	U	A
100-41-4	Ethylbenzene	5. UJ	U	A
100-42-5	Styrene	5. UJ	U	A
1330-20-7	Xylenes (total)	5. UJ	U	A

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

43-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2605

Level: (low/med) LOW Date Received: 1/25/89

% Moisture: not dec. 100. Date Analyzed: 1/26/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10.UJ	U	A
74-83-9	Bromomethane	10.UJ	U	A
75-01-4	Vinyl Chloride	10.	UR	R
75-00-3	Chloroethane	10.UJ	U	A
75-09-2	Methylene Chloride	17. U	BJ	A
67-64-1	Acetone	10.UJ	U	A
75-15-0	Carbon Disulfide	5.UJ	U	A
75-35-4	1,1-Dichloroethene	4300.	E	A
75-34-3	1,1-Dichloroethane	150. J		A
540-59-0	1,2-Dichloroethene (total)	5.UJ	U	A
67-66-3	Chloroform	5.UJ	BJ	A
107-06-2	1,2-Dichloroethane	16.	J	A
78-93-3	2-Butanone	10.	UR	R
71-55-6	1,1,1-Trichloroethane	5200. J	E	A
56-23-5	Carbon Tetrachloride	5.UJ	U	A
108-05-4	Vinyl Acetate	10.UJ	U	A
75-27-4	Bromodichloromethane	5.UJ	U	A
78-87-5	1,2-Dichloropropane	5.UJ	U	A
10061-01-5	cis-1,3-Dichloropropene	5.UJ	U	A
79-01-6	Trichloroethene	2800. J	E	A
124-48-1	Dibromochloromethane	5.UJ	U	A
79-00-5	1,1,2-Trichloroethane	29.J		A
71-43-2	Benzene	5.UJ	U	A
10061-02-6	trans-1,3-Dichloropropene	5.UJ	U	A
75-25-2	Bromoform	5.UJ	U	A
108-10-1	4-Methyl-2-Pentanone	10.UJ	U	A
591-78-6	2-Hexanone	10.UJ	U	A
127-18-4	Tetrachloroethene	1400. J	E	A
79-34-5	1,1,2,2-Tetrachloroethane	5.UJ	U	A
108-88-3	Toluene	9.UJ	R	A
108-90-7	Chlorobenzene	5.UJ	U	A
100-41-4	Ethylbenzene	5.UJ	U	A
100-42-5	Styrene	5.UJ	U	A
1330-20-7	Xylenes (total)	5.UJ	U	A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

9-74

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E87-00528A5 No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2604

Level: (low/med) LOW Date Received: 1/25/89

% Moisture: not dec. 100. Date Analyzed: 1/26/89

Column: (pack/cap) CAP Dilution Factor: 100.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	1000.	U	N
74-83-9	Bromomethane	1000.	U	N
75-01-4	Vinyl Chloride	1000.	NR	R
75-00-3	Chloroethane	1000.	U	N
75-09-2	Methylene Chloride	500.	U	N
67-64-1	Acetone	1000.	U	N
75-15-0	Carbon Disulfide	500.	U	N
75-35-4	1,1-Dichloroethene	5300.		N
75-34-3	1,1-Dichloroethane	500.	U	N
540-59-0	1,2-Dichloroethene (total)	500.	U	N
67-66-3	Chloroform	500.	U	N
107-06-2	1,2-Dichloroethane	500.	U	N
78-93-3	2-Butanone	1000.	NR	R
71-55-6	1,1,1-Trichloroethane	10000.		N
56-23-5	Carbon Tetrachloride	500.	U	N
108-05-4	Vinyl Acetate	1000.	U	N
75-27-4	Bromodichloromethane	500.	U	N
78-87-5	1,2-Dichloropropane	500.	U	N
10061-01-5	cis-1,3-Dichloropropene	500.	U	N
79-01-6	Trichloroethene	7900.		N
124-48-1	Dibromochloromethane	500.	U	N
79-00-5	1,1,2-Trichloroethane	500.	U	
71-43-2	Benzene	500.	U	
10061-02-6	trans-1,3-Dichloropropene	500.	U	
75-25-2	Bromoform	500.	U	
108-10-1	4-Methyl-2-Pentanone	1000.	U	
591-78-6	2-Hexanone	1000.	U	
127-18-4	Tetrachloroethene	500.	U	
79-34-5	1,1,2,2-Tetrachloroethane	500.	U	
108-88-3	Toluene	500.	U	
108-90-7	Chlorobenzene	500.	U	
100-41-4	Ethylbenzene	500.	U	
100-42-5	Styrene	500.	U	
1330-20-7	Xylenes (total)	500.	U	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

43-87

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN2607

Level: (low/med) LOW Date Received: 1/25/89

% Moisture: not dec. 100. Date Analyzed: 1/26/89

Column: (pack/cap) CAP Dilution Factor: 100.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	1000.	U	U
74-83-9	Bromomethane	1000.	U	U
75-01-4	Vinyl Chloride	1000.	UR	R
75-00-3	Chloroethane	1000.	U	U
75-09-2	Methylene Chloride	500.	U	U
67-64-1	Acetone	1000.	U	U
75-15-0	Carbon Disulfide	500.	U	U
75-35-4	1,1-Dichloroethene	6300.		U
75-34-3	1,1-Dichloroethane	180.	J	U
540-59-0	1,2-Dichloroethene (total)	500.	U	U
67-66-3	Chloroform	500.	U	U
107-06-2	1,2-Dichloroethane	500.	U	U
78-93-3	2-Butanone	1000.	UR	R
71-55-6	1,1,1-Trichloroethane	15000.		U
56-23-5	Carbon Tetrachloride	500.	U	U
108-05-4	Vinyl Acetate	1000.	U	U
75-27-4	Bromodichloromethane	500.	U	U
78-87-5	1,2-Dichloropropane	500.	U	U
10061-01-5	cis-1,3-Dichloropropene	500.	U	U
79-01-6	Trichloroethene	11000.		U
124-48-1	Dibromochloromethane	500.	U	U
79-00-5	1,1,2-Trichloroethane	500.	U	U
71-43-2	Benzene	500.	U	U
10061-02-6	trans-1,3-Dichloropropene	500.	U	U
75-25-2	Bromoform	500.	U	U
108-10-1	4-Methyl-2-Pentanone	1000.	U	U
591-78-6	2-Hexanone	1000.	U	U
127-18-4	Tetrachloroethene	3400.		U
79-34-5	1,1,2,2-Tetrachloroethane	500.	U	U
108-88-3	Toluene	500.	U	U
108-90-7	Chlorobenzene	500.	U	U
100-41-4	Ethylbenzene	500.	U	U
100-42-5	Styrene	500.	U	U
1330-20-7	Xylenes (total)	500.	U	U

SOP WORK SHEETS FOR VOLATILES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO.*	DATE TUNED	TIME TUNED	BFB ION ABUNDANCE CRITERIA MET		ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA		FREQUENCY OF TUNE > 12 HRS.		ACTION
			YES	NO		YES	NO	YES	NO	
Trip Bl	1/17/89	6:30	X				X	X	X	none
Field Bl										
2-87										
69-86										
4-87										
D4-87										
4-87 MS										
4-87MSD										
Trip Bl	1/19/89	6:53	X						X	
Field Bl										
10-74										
56-86										
56-86D										
70-86										
5-87										
52-87										
D52-87										
52-87MS										
52-87MSD										
10-74 RS										

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR VOLATILES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO.*	DATE TUNED	TIME TUNED	BFB ION ABUNDANCE CRITERIA MET		ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA		FREQUENCY OF TUNE > 12 HRS		ACTION
			YES	NO		YES	NO	YES	NO	
Trip Bl	1/25/89	7:41	X				X		X	none
Field Bl	↓	↓	↓				↓		↓	↓
3-87										
8-87										
62-87										
45-87	↓	↓	↓				↓		↓	
Trip Bl	1/26/89	9:25	X				X		X	
Field Bl	↓	↓	↓				↓		↓	↓
9-74										
43-87										
43-87 x10	↓	↓	↓				↓		↓	↓
9-74 x10										

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-005ZSAS No.: SDG No.:

Mod. File ID: JAN17BFB BFB Injection Date: 1/17/89

Instrument ID.: EATF BFB Injection Time: 6:30

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.1
75	30.0 - 60.0% of mass 95	42.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.4
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	Greater than 50.0% of mass 95	65.6
175	5.0 - 9.0% of mass 174	3.8 (5.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	65.6 (99.9)1
177	5.0 - 9.0% of mass 176	3.5 (5.4)2

1-Value is % mass 174 2-Value is % mass 176

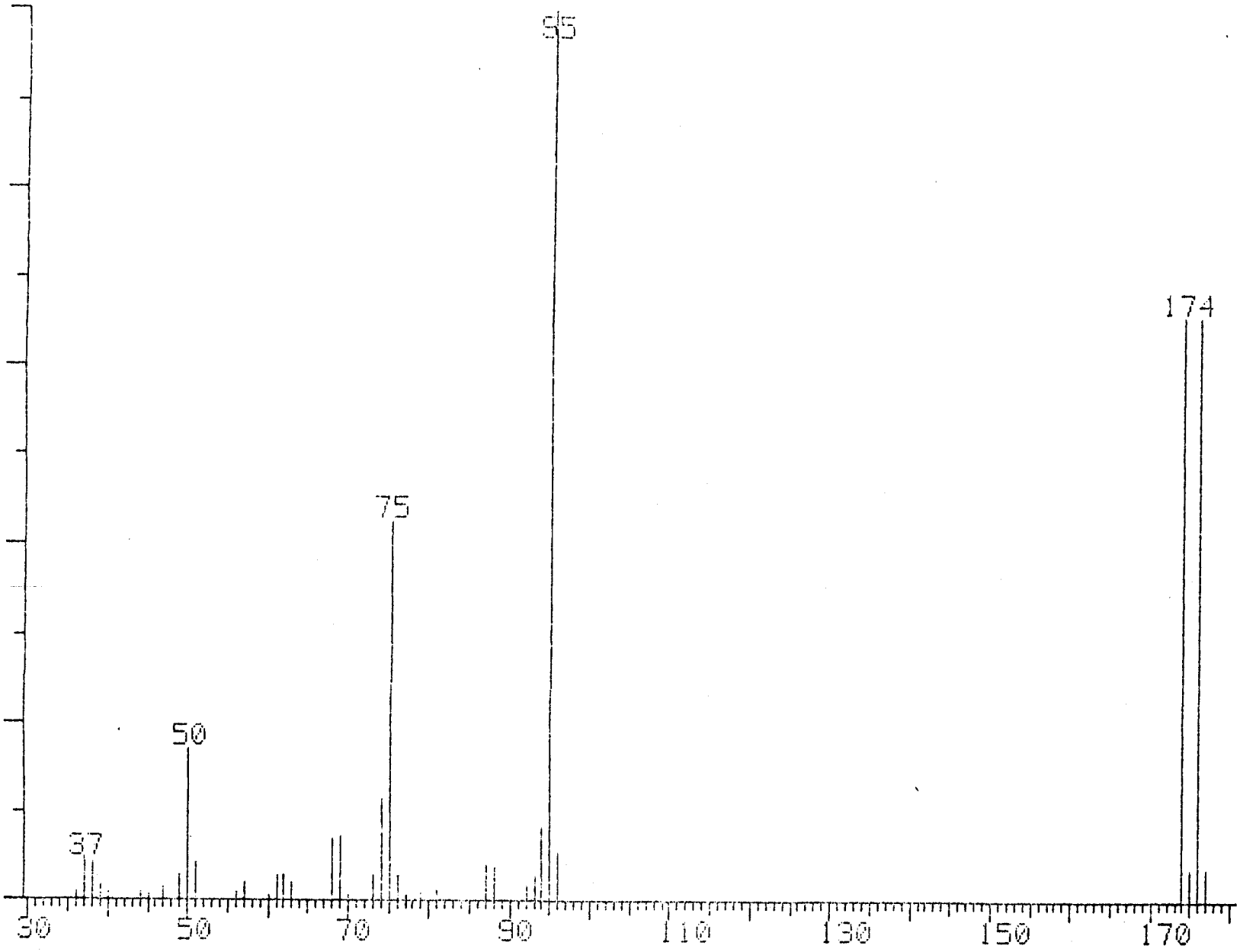
THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	RGNT B		JAN17LB	1/17/89	7:49
2	TRIP BL		JAN1703	1/17/89	10:31
3	FIELD BL		JAN1704	1/17/89	11:00
4	2-87		JAN1705	1/17/89	11:29
5	69-86		JAN1706	1/17/89	11:58
6	4-87		JAN1707	1/17/89	12:27
7	4-87		JAN1708	1/17/89	12:56
8	4-87 MS		JAN1709	1/17/89	13:25
9	4-87 MSD		JAN1710	1/17/89	13:54
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

1/87 Rev.

JAN17BFB
17-JAN-89 06:30:40 Scans averaged 1235-1240 Time 17.61 Min. Total Scale 41718 1*
100 % = 10477



4N17BFB
7-JAN-89 06:30:40 SCANS AVERAGED 1235-1240 TIME 17.61 MIN.
100 % = 10477

36	0.93	51	4.03	73	2.77	92	1.69
37	4.63	56	0.90	74	11.39	93	2.69
38	4.12	57	1.85	75	42.58	94	8.32
39	1.67	60	0.56	76	2.95	95	100.00
40	0.93	61	2.85	77	0.56	96	5.42
44	1.09	62	2.79	79	1.09	174	65.67
45	0.74	63	2.09	81	1.16	175	3.81
47	1.40	68	7.03	87	3.93	176	65.59
49	2.88	69	7.17	88	3.78	177	3.52
50	17.14	70	0.58				

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: ES9-0052SAS No.: SDG No.:

Lab File ID: JAN19BFB BFB Injection Date: 1/19/89

Instrument ID.: EXTR#1 BFB Injection Time: 6:53

Matrix: (soil/water) WATER Level: (low/med): LOW Column: (pack/cap) CAP

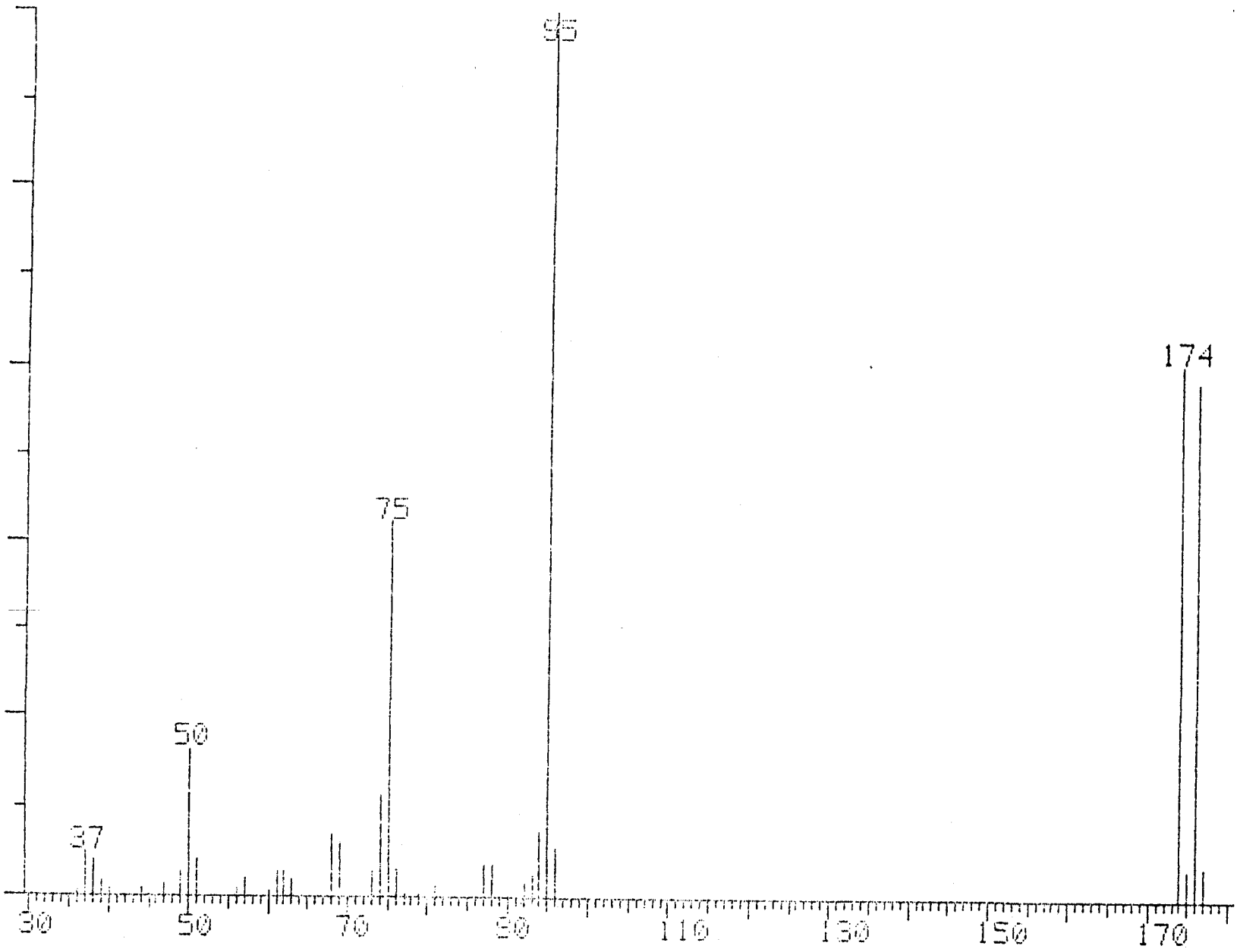
m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.3
75	30.0 - 60.0% of mass 95	42.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.5
173	Less than 2.0% of mass 174	0.2 (0.4)1
174	Greater than 50.0% of mass 95	60.5
175	5.0 - 9.0% of mass 174	3.4 (5.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	58.4 (96.6)1
177	5.0 - 9.0% of mass 176	3.5 (6.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	JAN19CC		JAN19CC	1/19/89	7:36
2	RGNT B		JAN19LB	1/19/89	8:22
3	TRIP BL		JAN1901	1/19/89	10:30
4	FIELD BL		JAN1902	1/19/89	11:01
5	10-74		JAN1903	1/19/89	11:30
6	56-86		JAN1904	1/19/89	11:59
7	56-86D		JAN1905	1/19/89	12:27
8	70-86		JAN1906	1/19/89	12:56
9	5-87		JAN1907	1/19/89	13:25
10	52-87		JAN1908	1/19/89	13:54
11	52-87		JAN1909	1/19/89	14:22
12	52-87MS		JAN1910	1/19/89	14:51
13	52-87MSD		JAN1911	1/19/89	15:20
14	10-74		JAN1912	1/19/89	16:00
15					
16					
17					
18					
19					
20					
21					
22					

JAN19BFB
19-JAN-85 06:53:50 Scans averaged 1237-1241 Time 17.63 Min. Total Scale 34128 1%
100 % = 8941



JAN19BFB
19-JAN-89 06:53:50 SCANS AVERAGED 1237-1241 TIME 17.63 MIN.
100 % = 8941

36	0.88	51	4.19	73	2.69	92	1.72
37	4.90	56	0.96	74	11.22	93	2.58
38	4.10	57	1.83	75	42.45	94	7.46
39	1.69	60	0.63	76	3.01	95	100.00
40	0.96	61	2.87	77	0.59	96	5.55
44	0.97	62	2.80	79	1.11	174	60.45
45	0.73	63	2.11	81	1.18	175	3.40
47	1.43	68	7.04	87	3.85	176	58.45
49	2.76	69	6.68	88	3.77	177	3.51
50	16.26	70	0.55				

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

ab File ID: JAN25BFB BFB Injection Date: 1/25/89

nstrument ID.: EXTR#1 BFB Injection Time: 7:41

atrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.0
75	30.0 - 60.0% of mass 95	45.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	63.7
175	5.0 - 9.0% of mass 174	4.0 (6.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	62.6 (98.3)1
177	5.0 - 9.0% of mass 176	3.5 (5.6)2

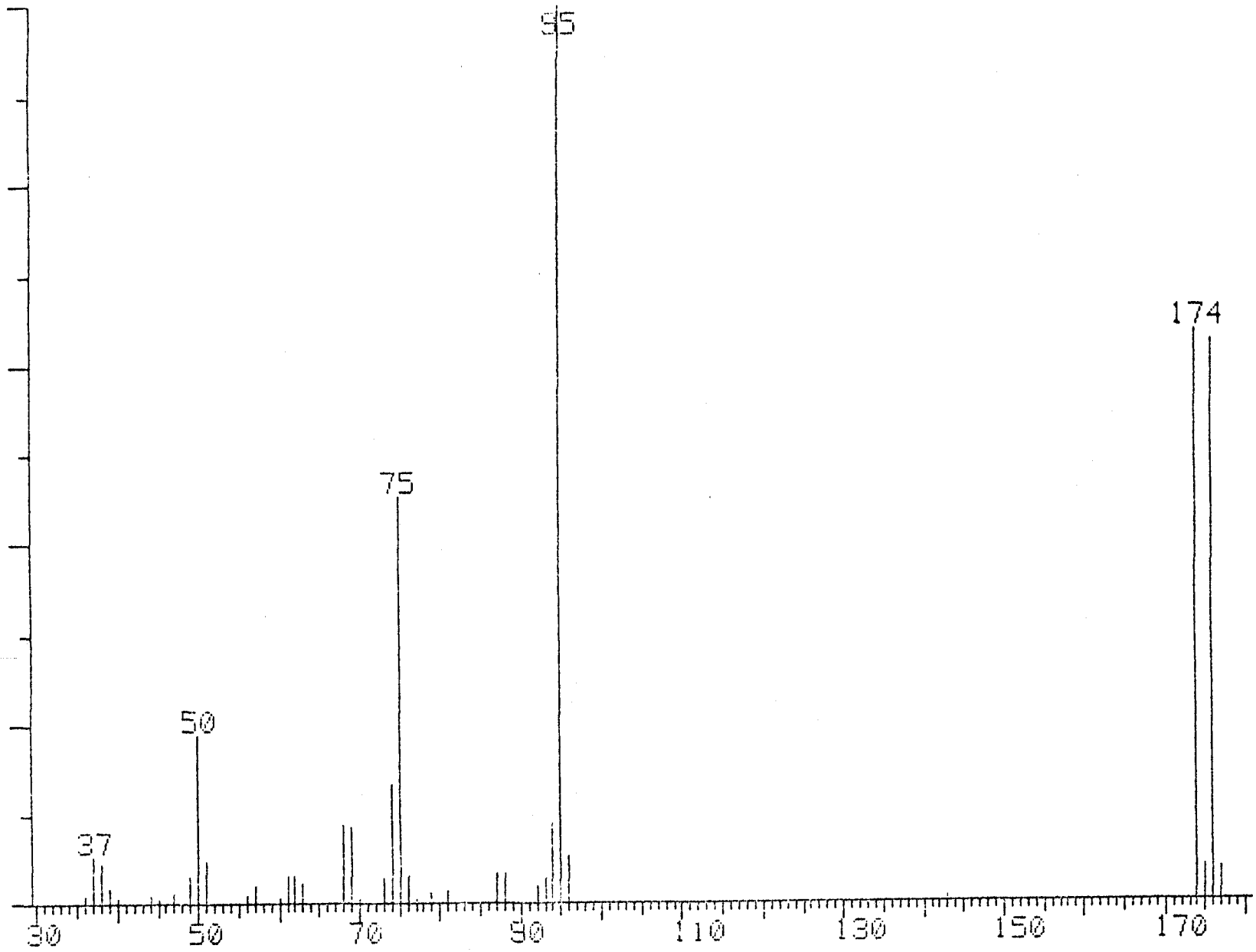
1-Value is % mass 174 2-Value is % mass 176

HIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTO1		VSTO1	1/25/89	8:27
2	FF02		FF02	1/25/89	8:48
3	FF03		FF03	1/25/89	9:17
4	FF04		FF04	1/25/89	9:47
5	FF05		FF05	1/25/89	10:16
6	JAN25CC		JAN25CC	1/25/89	10:56
7	RGNT B		JAN25LB	1/25/89	11:26
8	INIT BL		JAN2501	1/25/89	13:11
9	FIELD BL		JAN2502	1/25/89	13:44
10	3-87		JAN2503	1/25/89	14:13
11	8-87		JAN2504	1/25/89	14:42
12	62-87		JAN2505	1/25/89	15:12
13	45-87		JAN2506	1/25/89	15:41
14					
15					
16					
17					
18					
19					
20					
21					
22					

JAN25BFB
25-JAN-89 07:41:09 Scan 1246 Time 19.73 Min.
100 % = 15856

Total Scale
65060 1*



JAN25BFB
25-JAN-89 07:41:09 SCAN 1246 TIME 19.73 MIN.
100 % = 15856

36	0.96	51	4.72	73	2.91	93	2.84
37	5.26	56	1.10	74	13.52	94	9.18
38	4.49	57	1.96	75	45.41	95	100.00
39	1.71	60	0.61	76	3.06	96	5.27
40	0.69	61	3.24	77	0.61	143	0.51
44	0.89	62	3.17	79	1.21	174	63.67
45	0.73	63	2.34	81	1.36	175	4.00
47	1.19	68	8.68	87	3.49	176	62.56
49	3.15	69	8.48	88	3.49	177	3.52
50	18.97	70	0.52	92	1.84		

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Lab File ID: JAN26BFB BFB Injection Date: 1/26/89

Instrument ID.: EXTR#1 BFB Injection Time: 8:25

Matrix: (soil/water) WATER Level: (low/med): LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 60.0% of mass 95	45.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.9
173	Less than 2.0% of mass 174	0.3 (0.5)1
174	Greater than 50.0% of mass 95	64.4
175	5.0 - 9.0% of mass 174	4.0 (6.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	63.1 (98.1)1
177	5.0 - 9.0% of mass 176	3.6 (5.6)2

1-Value is % mass 174 2-Value is % mass 176

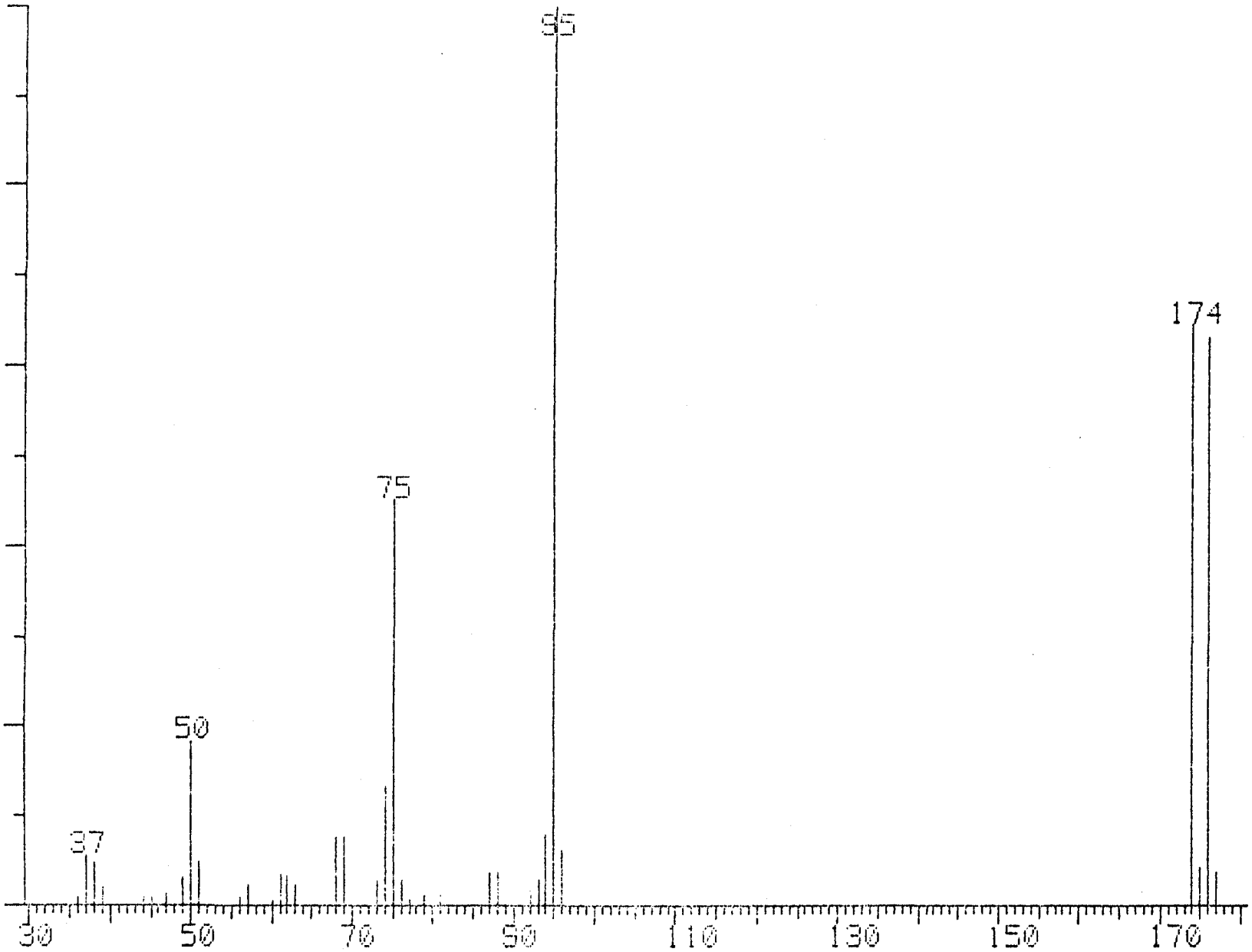
THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	JAN26CC		JAN26CC	1/26/89	11:12
2	RGNT B		JAN26LB	1/26/89	12:53
3	TRIP BL		JAN2601	1/26/89	13:39
4	FIELD BL		JAN2602	1/26/89	14:11
5	9-74		JAN2603	1/26/89	14:41
6	43-87 NS		Jan2605	1/26/89	15:30
7	43-87		Jan2607 NS	1/26/89 NS	16:55 NS
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA 1/87 Rev.

JAN26BFB
26-JAN-89 08:25:41 Scan 1245 Time 19.72 Min.
100 % = 12928

Total Scale
52740 1%



JAN26BFB
26-JAN-89 08.25:41 SCAN 1245 TIME 19.72 MIN.
100 % = 12928

36	1.03	50	18.07	70	0.68	92	1.71
37	5.50	51	4.77	73	2.92	93	2.70
38	4.68	56	1.08	74	13.12	94	7.86
39	1.81	57	2.15	75	45.17	95	100.00
40	0.70	60	0.71	76	2.79	96	5.92
44	0.84	61	3.23	77	0.57	174	64.36
45	0.80	62	3.23	79	1.24	175	4.04
47	1.44	63	2.32	81	1.28	176	63.12
48	0.53	68	7.39	87	3.67	177	3.57
49	3.13	69	7.33	88	3.64		

SOP WORK SHEETS FOR VOLATILES

INITIAL CALIBRATION

SAMPLE NO.*	DATE	TIME	DESCRIBE CHROMATOGRAPHIC PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF>0		ANY HSL COMPOUND RF<0.05		ANY HSL COMPOUND RSD>30%		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
Trip Bl	1/16/89	13:29	Corrected ~~RRFS~~ missing	X		X		X		X		X		Bromomethane +J/-R 2-Butanone +J/-R
Field Bl			~~for 2T, 3T~~											
2-87														
69-86														
4-87														
D4-87														
~~4A~~ 4-87MS														
4-87MSD														
Trip Bl														
Field Bl														
10-74														
56-86														
56-86D														
70-86														
5-87														
52-87														
D 52-87														
52-87MS														
52-87MSD														
10-74x5														

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR VOLATILES

INITIAL CALIBRATION

SAMPLE NO.*	DATE	TIME	DESCRIBE CHROMATO-GRAPHIC PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF>0		ANY HSL COMPOUND RF<0.05		ANY HSL COMPOUND RSD>30%		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
Trip Bl	11/25/87	8:27		X		X		X		X		X		2-Butanone U/R Methylene Chloride, Acetone, 1,2 Dichloroethane (FJ)
Field Bl														
3-87														
8-87														
62-87														
45-87														
Trip Bl														
Field Bl														
9-74x														
43-87														
43-87x100														
9-74x100														

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-00[illegible] SAS No.: SDG No.:

nstrument ID: EXTR#1 Calibration Date(s): 1/16/89 1/16/89

atrix: (soil/water) WATER Level: (low/med): LOW Column: (pack/cap) CAP

in $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = VOS05 RRF50 = VOS04
RRF100= VOS03 RRF150= VOS02 RRF200= VOS01

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.397	0.349	0.411	0.428	0.480	0.413	11.5#
Bromomethane	0.452	0.396	0.451	0.892	2.010	0.840	81.4
Vinyl Chloride *	0.409	0.835	0.961	0.866	0.807	0.775	27.5*
Chloroethane	0.250	0.182	0.217	0.220	0.234	0.220	11.4
Methylene Chloride	2.257	1.843	1.786	1.424	1.574	1.777	17.8
Acetone	0.450	0.380	0.481	0.495	0.540	0.469	12.7
Carbon Disulfide	9.139	8.174	10.521	9.787	11.206	9.766	12.1
,1-Dichloroethene *	1.159	1.262	1.472	1.224	1.340	1.291	9.3*
,1-Dichloroethane #	3.375	3.166	3.674	2.934	3.435	3.317	8.5#
,2-Dichloroethene (total)	1.522	1.653	1.895	1.628	1.872	1.714	9.5
Chloroform *	5.246	3.792	4.147	4.024	4.110	4.264	13.3*
,2-Dichloroethane	2.709	2.247	2.855	2.310	2.682	2.561	10.4
-Butanone	0.052	0.038	0.049	0.040	0.045	0.045	12.5
,1,1-Trichloroethane	0.523	0.433	0.537	0.515	0.442	0.490	9.9
arbon Tetrachloride	0.456	0.422	0.485	0.465	0.412	0.448	6.8
inyl Acetate	1.750	1.225	1.868	1.616	1.542	1.600	15.3
romodichloromethane	0.709	0.649	0.750	0.716	0.729	0.711	5.3
,2-Dichloropropane *	0.410	0.382	0.466	0.426	0.434	0.424	7.3*
is-1,3-Dichloropropene	0.345	0.285	0.400	0.372	0.361	0.353	12.2
richloroethene	0.323	0.324	0.397	0.376	0.411	0.366	11.1
ibromochloromethane	0.453	0.434	0.503	0.474	0.509	0.474	6.7
,1,2-Trichloroethane	0.270	0.265	0.308	0.295	0.261	0.280	7.4
enzene	1.320	1.049	1.364	1.444	1.395	1.314	11.8
rans-1,3-Dichloropropene	0.857	0.750	0.868	0.868	0.863	0.841	6.1
romoform #	0.275	0.311	0.363	0.258	0.278	0.297	14.0#
-Methyl-2-Pentanone	0.383	0.372	0.463	0.407	0.507	0.426	13.4
-Hexanone	0.609	0.534	0.629	0.541	0.623	0.587	7.8
,1,2,2-Tetrachloroethane #	0.557	0.517	0.567	0.544	0.635	0.564	7.8#
oluene *	1.390	1.018	1.109	1.029	1.090	1.127	13.5*
hlorobenzene #	1.040	0.948	1.136	1.099	1.154	1.075	7.8#
thylbenzene *	0.484	0.466	0.518	0.520	0.563	0.510	7.3*
tyrene	2.226	2.270	2.809	2.930	3.240	2.695	16.2
ylenes (total)	1.354	1.217	1.610	1.581	1.727	1.498	13.8
oluene-d8	1.315	1.151	1.389	1.274	1.357	1.297	7.1
romofluorobenzene	0.753	0.690	0.776	0.807	0.902	0.786	9.9
,2-Dichloroethane-d4	2.108	2.000	2.314	2.038	2.219	2.136	6.1

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-00[illegible] SAS No.: SDG No.:

nstrument ID: EXTR#1 Calibration Date(s): 1/16/89 1/16/89

atrix: (soil/water) WATER Level: (low/med): LOW Column: (pack/cap) CAP

in RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF5 = VOS05 RRF4 = VOS04
RRF3 = VOS03 RRF2 = VOS02 RRF1 = VOS01

COMPOUND	RRF5	RRF4	RRF3	RRF2	RRF1	RRF	% RSD
Chloromethane	# 0.397	0.349	0.411	0.428	0.480	0.413	11.5#
Bromomethane		0.396	0.451	0.892	2.010	0.937	79.9
Vinyl Chloride	*	0.835	0.961	0.866	0.807	0.867	7.7*
Chloroethane	0.250	0.182	0.217	0.220	0.234	0.220	11.4
Methylene Chloride	2.257	1.843	1.766	1.424	1.574	1.777	17.8
Acetone	0.450	0.380	0.481	0.495	0.540	0.469	12.7
Carbon Disulfide	9.139	8.174	10.521	9.787	11.206	9.766	12.1
1,1-Dichloroethene	* 1.159	1.262	1.472	1.224	1.340	1.291	9.3*
1,1-Dichloroethane	# 3.375	3.166	3.674	2.934	3.435	3.317	8.5#
1,2-Dichloroethene (total)	1.522	1.653	1.895	1.628	1.872	1.714	9.5
Chloroform	* 5.246	3.792	4.147	4.024	4.110	4.264	13.3*
1,2-Dichloroethane	2.709	2.247	2.655	2.310	2.682	2.561	10.4
2-Butanone	0.052	0.038	0.049	0.040	0.045	0.045	12.5
1,1,1-Trichloroethane	0.523	0.433	0.537	0.515	0.442	0.490	9.9
Carbon Tetrachloride	0.456	0.422	0.485	0.465	0.412	0.448	6.8
Vinyl Acetate	1.750	1.225	1.868	1.616	1.542	1.600	15.3
Bromodichloromethane	0.709	0.649	0.750	0.716	0.729	0.711	5.3
1,2-Dichloropropane	* 0.410	0.382	0.466	0.426	0.434	0.424	7.3*
cis-1,3-Dichloropropene	0.345	0.285	0.400	0.372	0.361	0.353	12.2
Trichloroethene	0.323	0.324	0.397	0.376	0.411	0.366	11.1
Dibromochloromethane	0.453	0.434	0.503	0.474	0.509	0.474	6.7
1,1,2-Trichloroethane	0.270	0.265	0.308	0.295	0.261	0.280	7.4
Benzene	1.320	1.049	1.364	1.444	1.395	1.314	11.8
trans-1,3-Dichloropropene	0.857	0.750	0.868	0.868	0.863	0.841	6.1
Bromoform	# 0.275	0.311	0.363	0.258	0.278	0.297	14.0#
4-Methyl-2-Pentanone	0.383	0.372	0.463	0.407	0.507	0.426	13.4
2-Hexanone	0.609	0.534	0.629	0.541	0.623	0.587	7.8
Tetrachloroethene	0.431	0.383	0.471	0.437	0.500	0.445	10.0
1,1,2,2-Tetrachloroethane	# 0.557	0.517	0.567	0.544	0.635	0.564	7.8#
Toluene	* 1.390	1.018	1.109	1.029	1.090	1.127	13.5*
Chlorobenzene	# 1.040	0.948	1.136	1.099	1.154	1.075	7.8#
Ethylbenzene	* 0.484	0.466	0.518	0.520	0.563	0.510	7.3*
Styrene	2.226	2.270	2.809	2.930	3.240	2.695	16.2
Xylenes (total)	1.354	1.217	1.610	1.581	1.727	1.498	13.8
Toluene-d8	1.315	1.151	1.389	1.274	1.357	1.297	7.1
Bromofluorobenzene	0.753	0.690	0.776	0.807	0.902	0.786	9.9
1,2-Dichloroethane-d4	2.108	2.000	2.314	2.038	2.219	2.136	6.1

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052 NU SAS No.: SDG No.:

Instrument ID: EXTR#1 Calibration Date(s): 1/25/89 1/25/89

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF = FF05 RRF = FF04
RRF = FF03 RRF = FF02 RRF1 = VST01

COMPOUND	RRF	RRF	RRF	RRF	RRF1	RRF	% RSD
Chloromethane	# 0.525	0.362	0.326	0.400	0.373	0.397	19.2#
Bromomethane	0.984	0.873	0.661	0.760	0.750	0.806	15.5
Vinyl Chloride	* 0.726	0.532	0.502	0.567	0.546	0.575	15.3*
Chloroethane	0.805	0.443	0.477	0.577	0.461	0.552	27.2
Methylene Chloride	2.270	1.743	1.140	1.214	1.241	1.522	31.7
Acetone	0.598	0.308	0.306	0.309	0.257	0.356	38.6
Carbon Disulfide	8.162	6.828	5.029	5.692	5.139	6.170	21.4
1,1-Dichloroethene	* 1.351	1.235	0.965	1.080	0.952	1.117	15.5*
1,1-Dichloroethane	# 3.485	2.412	1.979	2.258	1.976	2.422	25.7#
1,2-Dichloroethene (total)	2.120	1.617	1.169	1.275	1.297	1.496	25.9
Chloroform	* 4.364	3.115	2.455	2.748	2.319	3.000	27.4*
1,2-Dichloroethane	2.882	1.816	1.426	1.490	1.405	1.804	34.7
2-Butanone	0.063	0.035	0.034	0.036	0.038	0.041	29.7
1,1,1-Trichloroethane	0.591	0.405	0.374	0.377	0.382	0.426	21.9
Carbon Tetrachloride	0.572	0.370	0.347	0.367	0.381	0.407	22.8
Vinyl Acetate	1.637	0.983	0.856	1.002	1.081	1.112	27.4
Bromodichloromethane	0.775	0.504	0.483	0.565	0.546	0.575	20.3
1,2-Dichloropropane	* 0.575	0.361	0.363	0.389	0.397	0.417	21.5*
cis-1,3-Dichloropropene	0.431	0.302	0.306	0.290	0.337	0.333	17.2
Trichloroethene	0.554	0.371	0.379	0.396	0.400	0.420	18.1
Dibromochloromethane	0.622	0.410	0.459	0.448	0.516	0.491	16.8
1,1,2-Trichloroethane	0.417	0.268	0.318	0.264	0.343	0.322	19.5
Benzene	1.694	1.039	1.092	1.144	1.115	1.217	22.2
trans-1,3-Dichloropropene	1.026	0.682	0.703	0.723	0.581	0.743	22.5
Bromoform	# 0.459	0.317	0.329	0.339	0.312	0.351	17.5#
4-Methyl-2-Pentanone	0.468	0.325	0.352	0.351	0.384	0.376	14.7
2-Hexanone	0.674	0.442	0.471	0.444	0.496	0.505	19.2
Tetrachloroethene	0.571	0.398	0.395	0.399	0.407	0.434	17.7
1,1,2,2-Tetrachloroethane	# 0.839	0.518	0.512	0.550	0.572	0.598	22.9#
Toluene	* 1.545	0.978	0.950	0.922	0.861	1.051	26.6*
Chlorobenzene	# 1.680	1.048	1.117	1.137	1.097	1.216	21.5#
Ethylbenzene	* 0.683	0.474	0.446	0.509	0.490	0.520	18.0*
Styrene	3.034	2.172	2.033	2.048	1.812	2.220	21.3
Xylenes (total)	1.743	1.171	1.110	1.080	0.924	1.206	26.0
Toluene-d8	1.829	1.155	1.175	1.164	1.052	1.275	24.6
Bromofluorobenzene	1.203	0.768	0.818	0.841	0.830	0.892	19.7
1,2-Dichloroethane-d4	1.996	1.483	1.061			1.513	30.9

SOP WORK SHEETS FOR VOLATILES

CONTINUING CALIBRATION

SAMPLE NO.*	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF>0		CALIBRATION WITHIN 12 HRS OF SAMPLE ANALYSIS		ANY HSL COMPOUND RF<0.05		ANY HSL COMPOUND %D>25		ACTION
			YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
Trip Bl	1/17/89	7:18	X			X	X		X			X	X		1,1 Dichloroethane (ccc) +J
Field Bl															1,2 Dichloro propane (ccc) +J
2-87															chloromethane +J/-R 90D=230% SPCC
69-86															chloroethane +J/-R 90D=90
4-87															Bromomethane, Methylenechloride
D4-87															1,1,2-Trichloroethane 2-Butanone, Carbon Tet, Vinyl
4-87 MS															Acetate, cis/t 3 Dichloropropene
4-87 MSD															2-Hexanone (+J)
Trip Bl	1/19/89	7:36	X		X		X		X		X		X		2-Butanone +J/-R
Field Bl															Chloromethane +J/-R SPCC
10-74															Bromomethane +J/-R
56-86															chloroethane,
56-86D															1,1 Dichloroethane, SPCC
70-86															Carbon tetrachloride
5-87															1,1,2-Trichloroethane (+J)
52-87															
D52-87															
52-87 MS															
52-87 MSD															
10-74 x5															

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR VOLATILES

CONTINUING CALIBRATION

SAMPLE NO.*	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF>0		CALIBRATION WITHIN 12 HRS. OF SAMPLE ANALYSIS		ANY HSL COMPOUND RF<0.05		ANY HSL COMPOUND %D>25		ACTION
			YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
Trip Bl	1/25/89	10:56	X			X	X		X		X		X		vinylchloride (+J)/CCC (-R)
Field Bl	↓	↓	↓			↓	↓		↓		↓		↓		chloromethane +J/-R SPCC
2-87															2 Butanone +J/-R
~~69-86~~ 8-87															Dibromochloromethane +J
~~4-87~~ 6-86															1,1,2-Trichloroethene +J
D 45-87	↓	↓	↓			↓	↓		↓		↓		↓		↓
Trip Bl	1/26/89	11:12	X			X	X		X		X		X		2-Butanone +J/-R
Field Bl	↓	↓	↓			↓	↓		↓		↓		↓		vinylchloride +J/-R (CCC)
9-74															chloromethane +J SPCC
43-87															Dibromochloromethane +J
43-87 x100	↓	↓	↓			↓	↓		↓		↓		↓		Trans-1,3 Dichloropropene +J
9-74 x100	↓	↓	↓			↓	↓		↓		↓		↓		↓

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E88-34395AS No.: SDG No.:

Instrument ID: EXTR#1 Calibration Date: 1/17/89 Time: 7:18

Lab File ID: JAN17CC Init. Calib. Date(s): 1/16/89 1/16/89

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) is 25.0%

COMPOUND	RRF	RRF50	%D	
Chloromethane	# 0.413	1.362	229.8	# reject
Bromomethane	0.937	0.522	44.3	
Vinyl Chloride	* 0.867	1.045	20.5	*
Chloroethane	0.220	0.417	89.3	reject
Methylene Chloride	1.777	2.270	27.8	
Acetone	0.469	0.510	8.6	
Carbon Disulfide	9.766	12.199	24.9	
1,1-Dichloroethene	* 1.291	1.699	31.6	* ✓ccc
1,1-Dichloroethane	# 3.317	3.553	7.1	#
1,2-Dichloroethene (total)	1.714	1.936	12.9	
Chloroform	* 4.264	4.381	2.7	*
1,2-Dichloroethane	2.561	2.791	9.0	
2-Butanone	0.045	0.061	37.2	
1,1,1-Trichloroethane	0.490	0.596	21.7	
Carbon Tetrachloride	0.448	0.588	31.1	
Vinyl Acetate	1.600	2.212	38.2	
Bromodichloromethane	0.711	0.827	16.4	
1,2-Dichloropropane	* 0.424	0.540	27.5 *	✓ccc
cis-1,3-Dichloropropene	0.353	0.456	29.3	
Trichloroethene	0.366	0.420	14.8	
Dibromochloromethane	0.474	0.591	24.6	
1,1,2-Trichloroethane	0.280	0.396	41.6	
Benzene	1.314	1.468	11.7	
trans-1,3-Dichloropropene	0.841	1.044	24.1	
Bromoform	# 0.297	0.371	25.0	#
4-Methyl-2-Pentanone	0.426	0.528	23.8	
2-Hexanone	0.587	0.792	34.8	
Tetrachloroethene	0.445	0.461	3.7	
1,1,2,2-Tetrachloroethane	# 0.564	0.677	20.1	#
Toluene	* 1.127	1.198	6.2	*
Chlorobenzene	# 1.075	1.216	13.0	#
Ethylbenzene	* 0.510	0.593	16.3	*
Styrene	2.695	3.102	15.1	
Xylenes (total)	1.498	1.603	7.0	
Toluene-d8	1.297	1.305	0.6	
Bromofluorobenzene	0.786	0.815	3.7	
1,2-Dichloroethane-d4	2.136	2.008	6.0	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Instrument ID: EXTR#1 Calibration Date: 1/19/89 Time: 7:36

Lab File ID: JAN19CC Init. Calib. Date(s): 1/16/89 1/16/89

Matrix: (soil/water) WATER Level: (low/med): LOW Column: (pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) is 25.0%

COMPOUND	RRF	RRF50	%D	
Chloromethane	# 0.413	0.775	87.6	# Reject
Bromomethane	0.937	0.472	49.7	Reject
Vinyl Chloride	* 0.867	0.992	14.4	*
Chloroethane	0.220	0.131	40.6	
Methylene Chloride	1.777	1.683	5.3	
Acetone	0.469	0.467	0.6	
Carbon Disulfide	9.766	10.559	8.1	
1,1-Dichloroethene	* 1.291	1.442	11.6	*
1,1-Dichloroethane	# 3.317	2.408	27.4	#
1,2-Dichloroethene (total)	1.714	1.546	9.8	
Chloroform	* 4.264	3.515	17.6	*
1,2-Dichloroethane	2.561	2.133	16.7	
2-Butanone	0.045	0.038	14.0	+J/-R
1,1,1-Trichloroethane	0.490	0.473	3.5	
Carbon Tetrachloride	0.448	0.324	27.6	
Vinyl Acetate	1.600	1.273	20.4	
Bromodichloromethane	0.711	0.549	22.8	
1,2-Dichloropropane	* 0.424	0.418	1.4	*
cis-1,3-Dichloropropene	0.353	0.272	22.9	
Trichloroethene	0.366	0.431	17.7	
Dibromochloromethane	0.474	0.484	2.1	
1,1,2-Trichloroethane	0.280	0.388	38.5	
Benzene	1.314	1.284	2.3	
trans-1,3-Dichloropropene	0.841	0.807	4.1	
Bromoform	# 0.297	0.347	16.7	#
4-Methyl-2-Pentanone	0.426	0.439	2.9	
2-Hexanone	0.587	0.639	8.9	
Tetrachloroethene	0.445	0.499	12.3	
1,1,2,2-Tetrachloroethane	# 0.564	0.624	10.6	#
Toluene	* 1.127	1.159	2.8	*
Chlorobenzene	# 1.075	1.183	10.0	#
Ethylbenzene	* 0.510	0.566	10.9	*
Styrene	2.695	2.570	4.7	
Xylenes (total)	1.498	1.350	9.9	
Toluene-d8	1.297	1.194	8.0	
Bromofluorobenzene	0.786	0.791	0.8	
1,2-Dichloroethane-d4	2.136	1.501	29.7	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Instrument ID: EXTR#1 Calibration Date: 1/25/89 Time: 10:56

Lab File ID: JAN25CC Init. Calib. Date(s): 1/25/89 1/25/89

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) is 25.0%

COMPOUND	RRF	RRF50	%D	
Chloromethane	# 0.397	0.726	82.9	# reject
Bromomethane	0.806	0.959	19.0	
Vinyl Chloride	* 0.575	0.969	68.6	* Reject CCC
Chloroethane	0.552	0.683	23.7	
Methylene Chloride	1.522	1.598	5.0	
Acetone	0.356	0.376	5.7	
Carbon Disulfide	6.170	5.566	9.8	
1,1-Dichloroethene	* 1.117	1.083	3.0	*
1,1-Dichloroethane	# 2.422	2.028	16.3	#
1,2-Dichloroethene (total)	1.496	1.193	20.3	
Chloroform	* 3.000	3.061	2.0	*
1,2-Dichloroethane	1.804	1.565	13.2	
2-Butanone	0.041	0.033	18.8	+J/-R
1,1,1-Trichloroethane	0.426	0.431	1.2	
Carbon Tetrachloride	0.407	0.370	9.2	
Vinyl Acetate	1.112	1.044	6.1	
Bromodichloromethane	0.575	0.528	8.2	
1,2-Dichloropropane	* 0.417	0.377	9.5	*
cis-1,3-Dichloropropene	0.333	0.287	14.0	
Trichloroethene	0.420	0.378	10.0	
Dibromochloromethane	0.491	0.320	34.8	
1,1,2-Trichloroethane	0.322	0.239	25.6	
Benzene	1.217	1.063	12.6	
trans-1,3-Dichloropropene	0.743	0.700	5.8	
Bromoform	# 0.351	0.276	21.3	#
4-Methyl-2-Pentanone	0.376	0.304	19.2	
2-Hexanone	0.505	0.447	11.6	
Tetrachloroethene	0.434	0.383	11.8	
1,1,2,2-Tetrachloroethane	# 0.598	0.553	7.6	#
Toluene	* 1.051	1.062	1.0	*
Chlorobenzene	# 1.216	1.105	9.1	#
Ethylbenzene	* 0.520	0.465	10.7	*
Styrene	2.220	2.136	3.8	
Xylenes (total)	1.206	1.147	4.9	
Toluene-d8	1.275	1.228	3.7	
Bromofluorobenzene	0.892	0.807	9.6	
1,2-Dichloroethane-d4	1.513	1.387	8.4	

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Instrument ID: EXTR#1 Calibration Date: 1/26/89 Time: 11:12

Lab File ID: JAN26CC Init. Calib. Date(s): 1/25/89 1/25/89

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) is 25.0%

COMPOUND		RRF	RRF50	%D		
Chloromethane	#	0.397	0.558	40.6	#	
Bromomethane		0.806	0.915	13.5		
Vinyl Chloride	*	0.575	0.979	70.4	*	Reject
Chloroethane		0.552	0.637	15.3		
Methylene Chloride		1.522	1.629	7.0		
Acetone		0.356	0.363	2.1		
Carbon Disulfide		6.170	6.041	2.1		
1,1-Dichloroethene	*	1.117	1.094	2.0	*	
1,1-Dichloroethane	#	2.422	2.172	10.3	#	
1,2-Dichloroethene (total)		1.496	1.315	12.1		
Chloroform	*	3.000	3.201	6.7	*	
1,2-Dichloroethane		1.804	1.594	11.6		
2-Butanone		0.041	0.044	7.7		≠J/R
1,1,1-Trichloroethane		0.426	0.354	16.8		
Carbon Tetrachloride		0.407	0.364	10.6		
Vinyl Acetate		1.112	1.112	0.0		
Bromodichloromethane		0.575	0.488	15.0		
1,2-Dichloropropane	*	0.417	0.346	17.0	*	
cis-1,3-Dichloropropene		0.333	0.278	16.6		
Trichloroethene		0.420	0.327	22.0		
Dibromochloromethane		0.491	0.334	32.0		
1,1,2-Trichloroethane		0.322	0.306	5.0		
Benzene		1.217	1.030	15.3		
trans-1,3-Dichloropropene		0.743	0.554	25.4		
Bromoform	#	0.351	0.269	23.3	#	
4-Methyl-2-Pentanone		0.376	0.321	14.5		
2-Hexanone		0.505	0.447	11.5		
Tetrachloroethene		0.434	0.524	20.6		
1,1,2,2-Tetrachloroethane	#	0.598	0.490	18.2	#	
Toluene	*	1.051	0.940	10.5	*	
Chlorobenzene	#	1.216	0.941	22.6	#	
Ethylbenzene	*	0.520	0.438	15.8	*	
Styrene		2.220	2.159	2.8		
Xylenes (total)		1.206	1.162	3.6		
Toluene-d8		1.275	1.187	6.9		
Bromofluorobenzene		0.892	0.768	13.9		
1,2-Dichloroethane-d4		1.513	1.579	4.4		

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: ~~E89-343~~ E89-0052 NJ SAS No.: SDG No.:

Lab File ID (Standard): JAN17CC Date Analyzed: 1/17/89

Instrument ID: EXTR#1 Time Analyzed: 7:16

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	14190.	9.18	43812.	10.95	41257.	15.67
	UPPER LIMIT	20380.	9.68	87624.	11.45	82514.	16.17
	LOWER LIMIT	5095.	8.68	21906.	10.45	20629.	15.17
	EPA SAMPLE NO.						
1	RGNT B	10615.	9.22	52456.	10.97	44218.	15.70
2	TRIP BL	9322.	9.20	46776.	10.97	39385.	15.68
3	FIELD BL	8676.	9.22	45320.	10.98	41348.	15.70
4	2-87	8722.	9.20	44632.	10.98	39962.	15.70
5	69-86	8754.	9.18	43475.	10.97	39165.	15.70
6	4-87	8703.	9.20	44067.	10.98	39202.	15.70
7	4-87	7944.	9.22	42192.	10.98	38297.	15.70
8	4-87 MS	8560.	9.20	43504.	10.97	39704.	15.68
9	4-87 MSD	8082.	9.20	40841.	10.97	37174.	15.70
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Lab File ID (Standard): JAN19CC Date Analyzed: 1/19/89

Instrument ID: EXTR#1 Time Analyzed: 7:36

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	15381.	9.20	72672.	10.98	65538.	15.68
	UPPER LIMIT	30762.	9.70	145344.	11.48	131076.	16.18
	LOWER LIMIT	7691.	8.70	36336.	10.48	32769.	15.18
	EPA SAMPLE NO.						
1	RGNT B	15430.	9.20	77352.	10.98	67430.	15.70
2	TRIP BL	15192.	9.20	76152.	10.98	67929.	15.68
3	FIELD BL	13973.	9.20	71256.	10.98	63775.	15.68
4	10-74	15132.	9.18	71336.	10.97	65865.	15.68
5	56-86	13800.	9.20	69800.	10.97	62298.	15.68
6	56-86D	14531.	9.18	69568.	10.97	63498.	15.68
7	70-86	13954.	9.20	68968.	10.97	63619.	15.68
8	5-87	13914.	9.18	66644.	10.95	60690.	15.68
9	52-87	14271.	9.18	67672.	10.97	61780.	15.68
10	52-87	13169.	9.20	65984.	10.97	60343.	15.68
11	52-87MS	13440.	9.20	66264.	10.98	60522.	15.68
12	52-87MSD	13407.	9.20	67040.	10.98	59149.	15.70
13	10-74	12906.	9.20	64256.	10.98	58237.	15.68
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Lab File ID (Standard): JAN25CC Date Analyzed: 1/25/89

Instrument ID: EXTR#1 Time Analyzed: 10:56

Matrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	16496.	12.08	72120.	13.55	59880.	17.87
	UPPER LIMIT	32992.	12.58	144240.	14.05	119760.	18.37
	LOWER LIMIT	8248.	11.58	36060.	13.05	29940.	17.37
	EPA SAMPLE NO.						
1	RGNT B	13157.	12.05	66008.	13.53	50944.	17.85
2	TRIP BL	16911.	12.08	73053.	13.53	55922.	17.85
3	FIELD BL	13544.	12.07	67296.	13.53	51991.	17.87
4	3-87	14273.	12.07	73872.	13.53	58873.	17.87
5	8-87	13421.	11.85	67932.	13.47	54835.	17.83
6	62-87	13430.	11.88	62324.	13.47	53246.	17.83
7	45-87	15563.	11.87	45449.	13.47	52558.	17.82
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII VOA

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

ab File ID (Standard): JAN26CC Date Analyzed: 1/26/89

nstrument ID: EXTR#1 Time Analyzed: 11:12

atrix:(soil/water) WATER Level:(low/med): LOW Column:(pack/cap) CAP

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	18552.	12.10	87304.	13.53	66563.	17.83
	UPPER LIMIT	37104.	12.60	174608.	14.03	133126.	18.33
	LOWER LIMIT	9276.	11.60	43652.	13.03	33282.	17.33
	EPA SAMPLE NO.						
1	RGNT B	17677.	12.08	81368.	13.52	62819.	17.82
2	TRIP BL	16872.	12.08	68164.	13.53	58112.	17.85
3	FIELD BL	12966.	12.00	64673.	13.47	56219.	17.83
4	9-74	14558.	11.92	71816.	13.47	83688.	17.83
5	9-74	19127.	12.10	76520.	13.57	64217.	17.87
6	43-87	15009.	12.08	69664.	13.53	53500.	17.83
7	43-87	17730.	12.08	81480.	13.55	90523.	17.85
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IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

SOP WORK SHEETS FOR VOLATILES

BLANKS

SAMPLE NO.	DATE ANALYZED	TIME ANALYZED	APPROPRIATE METHOD BLANK FOR EACH GC/MS SYSTEM		BLANK ANALYSIS EVERY 12 HOURS OR EVERY 20 SAMPLES		CRITERIA OF <5XCRDL FOR MELTHYLENE CHLORIDE, ACETONE AND TOLUENE MET		CRITERIA OF < CRDL FOR ALL OTHER HSL COMPOUNDS MET		ACTION
			YES	NO	YES	NO	YES	NO	YES	NO	
RGNTB	1/17/89	7:49	X		X			X		X	1,2,3
RGNTB	1/19/89	8:22	X		X			X		X	4,5,6
RGNTB	1/25/89	11:26	X		X			X		X	7,8,9
RGNTB	1/26/89	12:53	X		X			X		X	10,11,12

1. Methylene chloride 4ug/l → 40ug/l
2. Chloroform 6ug/l → 30ug/l
3. Toluene 3ug/l → 30 ug/l
4. Methylene Chloride 5ug/l → 50ug/l
5. Chloroform 8ug/l → 40ug/l
6. Toluene 3ug/l → 30ug/l
7. Methylene chloride 7ug/l → 70ug/l
8. Chloroform 9ug/l → 45ug/l
9. Toluene 4ug/l → 40ug/l
10. Methylene chloride 7ug/l → 70ug/l
11. Chloroform 8ug/l → 40ug/l
12. Toluene 4ug/l → 40ug/l

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Lab File ID: JAN17LB Lab Sample ID:

Date Analyzed: 1/17/89 Time Analyzed: 7:49

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID. EXTR#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	TRIP BL		JAN1703	10:31
2	FIELD BL		JAN1704	11:00
3	2-87		JAN1705	11:29
4	69-86		JAN1706	11:58
5	4-87		JAN1707	12:27
6	4-87		JAN1708	12:56
7	4-87 MS		JAN1709	13:25
8	4-87 MSD		JAN1710	13:54
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Lab File ID: JAN19LB Lab Sample ID:

Date Analyzed: 1/19/89 Time Analyzed: 8:22

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: EXTR#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	TRIP BL		JAN1901	10:30
2	FIELD BL		JAN1902	11:01
3	10-74		JAN1903	11:30
4	56-86		JAN1904	11:59
5	56-86D		JAN1905	12:27
6	70-86		JAN1906	12:56
7	5-87		JAN1907	13:25
8	52-87		JAN1908	13:54
9	52-87		JAN1909	14:22
10	52-87MS		JAN1910	14:51
11	52-87MSD		JAN1911	15:20
12	10-74		JAN1912	16:00
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COMMENTS:

FORM IV VOA 1/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

ab File ID: JAN25LB Lab Sample ID:

ate Analyzed: 1/25/89 Time Analyzed: 11:26

atrix: (soil/water) WATER Level: (low/med) LOW

nstrument ID: EXTR#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	TRIP BL		JAN2501	13:11
2	FIELD BL		JAN2502	13:44
3	3-87		JAN2503	14:13
4	8-87		JAN2504	14.42
5	62-87		JAN2505	15:12
6	45-87		JAN2506	15:41
7				
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9				
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OMMENTS:

FORM IV VOA 1/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Lab File ID: JAN26LB Lab Sample ID:

Date Analyzed: 1/26/89 Time Analyzed: 12:53

Matrix: (soil/water) WATER Level: (low/med) LOW

Instrument ID: EXTR#1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	TRIP BL		JAN2601	13:39
2	FIELD BL		JAN2602	14:11
3	9-74		JAN2603	14:41
4	9-74		JAN2604	14:52
5	43-87		JAN2607	16:54
6	43-87		JAN2605	15:30
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RGNT B

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN17LB

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RGNT B

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN19LB

Level: (low/med) LOW Date Received: 0/ 0/ 0

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	5.	J
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	8.	
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	3.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylenes (total)	5.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RGNT B

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

ample wt/vol: 5. (g/mL) ML Lab File ID: JAN25LB

evel: (low/med) LOW Date Received: 0/ 0/ 0

Moisture: not dec. 100. Date Analyzed: 1/25/89

olumn: (pack/cap) CAP Dilution Factor: 1.00

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RGNT B

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

ample wt/vol: 5. (g/mL) ML Lab File ID: JAN26LB

evel: (low/med) LOW Date Received: 0/ 0/ 0

Moisture: not dec. 100. Date Analyzed: 1/26/89

olumn: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10.	U
74-83-9	Bromomethane	10.	U
75-01-4	Vinyl Chloride	10.	U
75-00-3	Chloroethane	10.	U
75-09-2	Methylene Chloride	7.	
67-64-1	Acetone	10.	U
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	8.	
107-06-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	10.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	10.	U
591-78-6	2-Hexanone	10.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	4.	J
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylenes (total)	5.	U

SOP WORK SHEETS FOR VOLATILES

SURROGATES

SAMPLE NO.*	BLANK SURROGATES CRITERIA MET		IF "NO" WERE ALL ASSOCIATED SAMPLES RE-PURGED		SAMPLE SURROGATE RECOVERIES MET CRITERIA		IF "NO" WAS SAMPLE RE-PURGED		RE-PURGED SAMPLE MET CRITERIA		SURROGATES OUTSIDE CRITERIA	ACTION
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
Trip Bl	X											
Field Bl	X	~~X~~		~~X~~							BFB	
2-87					X							
69-86					X							
4-87					X							
D4-87					X							
4-87MS					~~X~~ X	~~X~~		~~X~~			BFB	
4-87MSD					X							
Trip Bl	X											
Field Bl	X											
10-74					X							
56-86					X							
56-86D					X							
70-86					X							
5-87					X							
52-87					X							
D52-87					X							
52-87MS					X							
52-87MSD					X							
10-74x5					X							

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR VOLATILES

SURROGATES

SAMPLE NO *	BLANK SURROGATES CRITERIA MET		IF "NO" WERE ALL ASSOCIATED SAMPLES RE-PURGED		SAMPLE SURROGATE RECOVERIES MET CRITERIA		IF "NO" WAS SAMPLE RE-PURGED		RE-PURGED SAMPLE MET CRITERIA		SURROGATES OUTSIDE CRITERIA	ACTION
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
Trip Bl	X											
Field Bl	X											
3-87					X							
8-87					X							
62-86					X							
45-87					X							
Trip Bl	X											
Field Bl	X											
9-74						X		X			Tol, BFB	
43-87					X							
43-87 x100						X		X			Toluene, BFB	
a-74 x100					X							
RGNTB	X											
RGNTB	X											
RGNTB	X											
RGNTB	X											

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: ~~E80-34895~~ E89-0052MS SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
1	RGNT B	91	89	99		0
2	TRIP BL	95	89	101		0
3	FIELD BL	92	86 *	105		1
4	2-87	93	82	106		0
5	69-86	89	87	100		0
6	4-87	93	88	103		0
7	4-87	90	90	106		0
8	4-87 MS	92	86 *	101		1
9	4-87 MSD	91	87	102		0
10	RGNT B	98	97	100		0
11	TRIP BL	95	96	100		0
12	FIELD BL	96	97	100		0
13	10-74	95	94	101		0
14	56-86	97	95	101		0
15	56-86D	95	97	97		0
16	70-86	95	95	98		0
17	5-87	97	97	95		0
18	52-87	97	95	99		0
19	52-87	95	97	101		0
20	52-87MS	94	94	97		0
21	52-87MSD	101	99	101		0
22	10-74	94	96	101		0
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-1 1/87 Rev.

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
1	RGNT B	98	101	99		0
2	TRIP BL	96	94	77		0
3	FIELD BL	94	93	98		0
4	3-87	93	98	102		0
5	8-87	93	99	82		0
6	62-87	92	96	90		0
7	45-87	88	94	78		0
8	RGNT B	99	98	91		0
9	TRIP BL	102	96	88		0
10	FIELD BL	91	98	86		0
11	9-74	78 *	81 *	87		2
12	9-74	101	93	93		0
13	43-87	102	99	93		0
14	43-87	87 *	80 *	102		2
15						
16						
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29						
30						

	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM II VOA-1 1/87 Rev.

SOP WORK SHEETS FOR VOLATILES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

SAMPLE NO *	MATRIX SPIKES FOR EVERY 20 SAMPLES		ADVISORY LIMITS FOR SPIKE RECOVERY MET		ADVISORY LIMITS FOR SPIKE RPDs MET		ACTION
	YES	NO	YES	NO	YES	NO	
Trip Bl	X			X	X		Toluene out by 2%
Field Bl							
2-87							
69-86							
4-87							
D4-87							
4-87 MS							
4-87MSD							
Trip Bl							
Field Bl							
10-74							
56-86							
56-86D							
70-86							
5-87							
52-87							
D52-87				X	X		Toluene out by 1%
52-87MS							
52-87MSD							
10-74 x5							

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR VOLATILES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

SAMPLE NO •	MATRIX SPIKES FOR EVERY 20 SAMPLES		ADVISORY LIMITS FOR SPIKE RECOVERY MET		ADVISORY LIMITS FOR SPIKE RPDs MET		ACTION
	YES	NO	YES	NO	YES	NO	
Trip Bl	X			X	X		Toluene out by 1%
Field Bl							
3-87							
8-87							
62-86							
45-87							
Trip Bl	X	X					
Field Bl							
9-74							
43-87							
43-87x100							
9-74x100							

• INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4-87 MS

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1709

Level: (low/med) LOW Date Received: 1/12/89

% Moisture: not dec. 100. Date Analyzed: 1/17/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	24.	
74-83-9	Bromomethane	37.	
75-01-4	Vinyl Chloride	17.	
75-00-3	Chloroethane	23.	
75-09-2	Methylene Chloride	38.	B
67-64-1	Acetone	36.	
75-15-0	Carbon Disulfide	39.	
75-35-4	1,1-Dichloroethene	40.	
75-34-3	1,1-Dichloroethane	43.	
540-59-0	1,2-Dichloroethene (total)	39.	
67-66-3	Chloroform	42.	B
107-06-2	1,2-Dichloroethane	44.	
78-93-3	2-Butanone	32.	
71-55-6	1,1,1-Trichloroethane	42.	
56-23-5	Carbon Tetrachloride	49.	
108-05-4	Vinyl Acetate	32.	
75-27-4	Bromodichloromethane	38.	
78-87-5	1,2-Dichloropropane	36.	
10061-01-5	cis-1,3-Dichloropropene	34.	
79-01-6	Trichloroethene	140.	
124-48-1	Dibromochloromethane	33.	
79-00-5	1,1,2-Trichloroethane	33.	
71-43-2	Benzene	40.	
10061-02-6	trans-1,3-Dichloropropene	34.	
75-25-2	Bromoform	37.	
108-10-1	4-Methyl-2-Pentanone	38.	
591-78-6	2-Hexanone	35.	
127-18-4	Tetrachloroethene	43.	
79-34-5	1,1,2,2-Tetrachloroethane	37.	
108-88-3	Toluene	40.	B
108-90-7	Chlorobenzene	39.	
100-41-4	Ethylbenzene	39.	
100-42-5	Styrene	37.	
1330-20-7	Xylenes (total)	39.	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4-87 MSD

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

ample wt/vol: 5. (g/mL) ML Lab File ID: JAN1710

evel: (low/med) LOW Date Received: 1/12/89

Moisture: not dec. 100. Date Analyzed: 1/17/89

olumn: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	13.	
74-83-9	Bromomethane	92.	
75-01-4	Vinyl Chloride	19.	
75-00-3	Chloroethane	26.	
75-09-2	Methylene Chloride	34.	B
67-64-1	Acetone	41.	
75-15-0	Carbon Disulfide	40.	
75-35-4	1,1-Dichloroethene	39.	
75-34-3	1,1-Dichloroethane	43.	
540-59-0	1,2-Dichloroethene (total)	38.	
67-66-3	Chloroform	45.	B
107-06-2	1,2-Dichloroethane	44.	
78-93-3	2-Butanone	29.	
71-55-6	1,1,1-Trichloroethane	43.	
56-23-5	Carbon Tetrachloride	48.	
108-05-4	Vinyl Acetate	29.	
75-27-4	Bromodichloromethane	39.	
78-87-5	1,2-Dichloropropane	37.	
10061-01-5	cis-1,3-Dichloropropene	36.	
79-01-6	Trichloroethene	140.	
124-48-1	Dibromochloromethane	35.	
79-00-5	1,1,2-Trichloroethane	34.	
71-43-2	Benzene	40.	
10061-02-6	trans-1,3-Dichloropropene	35.	
75-25-2	Bromoform	36.	
108-10-1	4-Methyl-2-Pentanone	34.	
591-78-6	2-Hexanone	31.	
127-18-4	Tetrachloroethene	49.	
79-34-5	1,1,2,2-Tetrachloroethane	36.	
108-88-3	Toluene	44.	B
108-90-7	Chlorobenzene	40.	
100-41-4	Ethylbenzene	39.	
100-42-5	Styrene	37.	
1330-20-7	Xylenes (total)	40.	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

52-87MS

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1910

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	19.	
74-83-9	Bromomethane	34.	
75-01-4	Vinyl Chloride	50.	
75-00-3	Chloroethane	56.	
75-09-2	Methylene Chloride	44.	B
67-64-1	Acetone	32.	
75-15-0	Carbon Disulfide	39.	
75-35-4	1,1-Dichloroethene	40.	
75-34-3	1,1-Dichloroethane	42.	
540-59-0	1,2-Dichloroethene (total)	43.	
67-66-3	Chloroform	46.	B
107-06-2	1,2-Dichloroethane	41.	
78-93-3	2-Butanone	37.	
71-55-6	1,1,1-Trichloroethane	40.	
56-23-5	Carbon Tetrachloride	59.	
108-05-4	Vinyl Acetate	39.	
75-27-4	Bromodichloromethane	52.	
78-87-5	1,2-Dichloropropane	42.	
10061-01-5	cis-1,3-Dichloropropene	41.	
79-01-6	Trichloroethene	40.	
124-48-1	Dibromochloromethane	40.	
79-00-5	1,1,2-Trichloroethane	39.	
71-43-2	Benzene	40.	
10061-02-6	trans-1,3-Dichloropropene	41.	
75-25-2	Bromoform	39.	
108-10-1	4-Methyl-2-Pentanone	37.	
591-78-6	2-Hexanone	38.	
127-18-4	Tetrachloroethene	41.	
79-34-5	1,1,2,2-Tetrachloroethane	40.	
108-88-3	Toluene	41.	B
108-90-7	Chlorobenzene	41.	
100-41-4	Ethylbenzene	41.	
100-42-5	Styrene	40.	
1330-20-7	Xylenes (total)	40.	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

52-87MSD

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

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

Sample wt/vol: 5. (g/mL) ML Lab File ID: JAN1911

Level: (low/med) LOW Date Received: 1/16/89

% Moisture: not dec. 100. Date Analyzed: 1/19/89

Column: (pack/cap) CAP Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	19.	
74-83-9	Bromomethane	52.	
75-01-4	Vinyl Chloride	15.	
75-00-3	Chloroethane	79.	
75-09-2	Methylene Chloride	40.	B
67-64-1	Acetone	36.	
75-15-0	Carbon Disulfide	34.	
75-35-4	1,1-Dichloroethene	35.	
75-34-3	1,1-Dichloroethane	44.	
540-59-0	1,2-Dichloroethene (total)	47.	
67-66-3	Chloroform	34.	B
107-06-2	1,2-Dichloroethane	43.	
78-93-3	2-Butanone	42.	
71-55-6	1,1,1-Trichloroethane	40.	
56-23-5	Carbon Tetrachloride	29.	
108-05-4	Vinyl Acetate	40.	
75-27-4	Bromodichloromethane	53.	
78-87-5	1,2-Dichloropropane	44.	
10061-01-5	cis-1,3-Dichloropropene	47.	
79-01-6	Trichloroethene	41.	
124-48-1	Dibromochloromethane	44.	
79-00-5	1,1,2-Trichloroethane	36.	
71-43-2	Benzene	41.	
10061-02-6	trans-1,3-Dichloropropene	43.	
75-25-2	Bromoform	44.	
108-10-1	4-Methyl-2-Pentanone	44.	
591-78-6	2-Hexanone	43.	
127-18-4	Tetrachloroethene	44.	
79-34-5	1,1,2,2-Tetrachloroethane	27.	
108-88-3	Toluene	45.	B
108-90-7	Chlorobenzene	41.	
100-41-4	Ethylbenzene	41.	
100-42-5	Styrene	42.	
1330-20-7	Xylenes (total)	44.	

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: GENLAB Contract:

Lab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: 4-87

COMPOUND	SPIKE ADDED (UG/L)	SAMPLE CONCENTRATION (UG/L)	MS CONCENTRATION (UG/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.	0.	40.	80.	61-145
Trichloroethene	50.	98.	142.	87.	71-120
Benzene	50.	0.	40.	81.	76-127
Toluene	50.	3.	40.	74. *	76-125
Chlorobenzene	50.	0.	39.	79.	75-130

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	39.	79.	1.	14	61-145
Trichloroethene	50.	145.	93.	6.	14	71-120
Benzene	50.	40.	79.	2.	11	76-127
Toluene	50.	44.	82.	10.	13	76-125
Chlorobenzene	50.	40.	80.	2.	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 1 out of 10 outside limits

COMMENTS:

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ab Name: GENLAB Contract:

ab Code: GENLAB Case No.: E89-0052SAS No.: SDG No.:

atrix Spike - EPA Sample No.: 52-87

COMPOUND	SPIKE ADDED (UG/L)	SAMPLE CONCENTRATION (UG/L)	MS CONCENTRATION (UG/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.	0.	40.	80.	61-145
Trichloroethene	50.	0.	40.	80.	71-120
Benzene	50.	0.	40.	81.	76-127
Toluene	50.	3.	41.	75. *	76-125
Chlorobenzene	50.	0.	41.	83.	75-130

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	35.	71.	12.	14	61-145
Trichloroethene	50.	41.	82.	2.	14	71-120
Benzene	50.	41.	82.	1.	11	76-127
Toluene	50.	45.	84.	11.	13	76-125
Chlorobenzene	50.	41.	83.	0.	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

Values outside of QC limits

PD: 0 out of 5 outside limits
pike Recovery: 1 out of 10 outside limits

OMMENTS:

SOP WORK SHEETS FOR VOLATILES

COMPOUND IDENTIFICATION										
SAMPLE NO.	HSL COMPOUNDS WITHIN ±0.06 RRT UNITS OF STANDARD		SAMPLE vs STANDARD SPECTRAL CRITERIA MET		ACTION ON HSL COMPOUNDS	NON-HSL COMPOUND IDENTIFICATION CRITERIA MET		ALL SPECTRA PRESENT		ACTION ON NON-HSL COMPOUNDS
	YES	NO	YES	NO		YES	NO	YES	NO	
Trip Bl	X		X							
Field Bl	X		X							
2-87	X		X							
69-86	X		X							
4-87	X		X							
~~4-87~~										
~~4-87 MS~~										
~~4-87 MSD~~										
Trip Bl.	X		X							
Field Bl	X		X							
10-74	X		X							
56-86	X		X							
56-86 D	X		X							
70-86	X		X							
5-87	X		X	X					X	TCE spectra missing
52-87	X		X							
D52-87	X		X							
~~52-87 MS~~										
~~52-87 MSD~~										
60-74x5	X		X							

SOP WORK SHEETS FOR VOLATILES

COMPOUND IDENTIFICATION

SAMPLE NO	HSL COMPOUNDS WITHIN ±0.06 RRT UNITS OF STANDARD		SAMPLE vs STANDARD SPECTRAL CRITERIA MET		ACTION ON HSL COMPOUNDS	NON-HSL COMPOUND IDENTIFICATION CRITERIA MET		ALL SPECTRA PRESENT		ACTION ON NON-HSL COMPOUNDS
	YES	NO	YES	NO		YES	NO	YES	NO	
Trip Bl	X		X							
Field Bl	X		X							
3-87	X		X							
8-87	X		X							
62-86	X		X							
45-87	X		X							
Trip Bl	X		X							
Field Bl	X		X							
9-74	X		X	X	GC				X	PCE, Toluene missing
43-87	X		X						X	PCE, Chloroform missing
4387x100	X		X						X	PCE
9-74100x	X		X						X	~~PCE, Chloroform missing~~

PCE off scale
Bil <EDL J
PCE off scale

Rockwell ER Program
Rocky Flats Plant

(06/02/89)

ER PROGRAM DATA ASSESSMENT SUMMARY REPORT FORM

Batch No. E89-0052 **Site** Area 2 - 881 Hillside

Laboratory 881 Rockwell **No. of Samples/Matrix** 14/Low Water

SOW # 10/86 (Rev. 8/87) **Reviewer Org.** TechLaw

Sample Numbers 9-74, 10-74, 56-86, 62-86, 69-86, 70-86, 2-87, 3-87, 4-87, 5-87, 8-87, 43-87, 45-87, 52-87.

Data Assessment Summary

		VOA	Comments
1.	Holding Times	V	
2.	GC/MS Tune/Instr. Perf.	V	
3.	Calibrations	A	Initial (4 TCL out) 2-butanone RRF<.05. Continuing (4 CCC out, 21 TCL out - total).
4.	Blanks	A	Methylene chloride, chloroform, and toluene contamination.
5.	Surrogates	A	Toluene and BFB out on 9-74 and 43-87
6.	Matrix Spike/Dup.	A	Toluene out by 2%, toluene out by 1%
7.	Other QC	A	1/12 Trip Blank contamination ((PCE)-J all + values), 2-butanone contamination.
8.	Internal Standards	V	
9.	Compound Identification	A	6 mass spectra missing. (data requested, chemist on vacation) 43-87 value for PCE estimated (J).
10.	System Performance	A	Blank contamination, Toluene and BFB surrogates out.
11.	Overall Assessment	A	Data acceptable, with qualification.

V = Data had no problems.
A = Data acceptable but qualified due to problems.
R = Data rejected, unusable.
X = Problems, but do not affect data.

Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged. (Refer to attached Results Summary Table).

11 WIND SITE
R PROG. DATA ASSESS. SUMM. RPT FRM
1 SNYDER. ROOM 158
ASE:ROCKY FLATS PLANT
eized Under Warrant On 06/11/89
✓ JON LIPSKY
t HIGHWAY 93
n GOLDEN. CO <<EVIDENCE TAG>>

hs #81
6/11/89
77355

Action Items: (1) Initial Calibration - 2-butanone, positive values are estimated (J) and non-detect values are rejected (R) for all samples because the average RRF was <.05. Bromomethane, positive values are estimated (J) and non-detect values are rejected (R) for samples 2-87, 69-86, 4-87, 4-87D, 10-74, 10-74X5 dilution, 56-86, 56-86D, 70-86, 5-87, 52-87, 52-87D, and the associated Trip and Field Blanks because the % Relative Standard Deviation exceeded 50%.

(2) Continuing Calibration - chloromethane and chloroethane positive values are estimated (J) and non-detects are rejected (R) for samples 2-87, 69-86, 4-87, 4-87D, and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%; bromomethane and chloromethane positive values are estimated (J) and non-detects are rejected (R) for samples 10-74, 10-74X5 dilution, 56-86, 56-86D, 70-86, 5-87, 52-87, 52-87D and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%; chloromethane and vinyl chloride positive values are estimated (J) and non-detects are rejected (R) for samples 3-87, 8-87, 62-87, 45-87 and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%; vinyl chloride positive values are estimated (J) and non-detects are rejected (R) for samples 9-74, 9-74X100 dilution, 43-87, 43-87X100 dilution, and associated Trip and Field Blanks because the % difference between the initial and continuing calibration was >50%. Positive values for carbon tetrachloride are estimated (J) for samples 4-87, 4-87D, and 10-74X5 dilution because the % difference between the initial and continuing calibration was >25%. CCC (1,1-dichloroethene and 1,2 dichloropropane) percent difference values were >25% for the continuing calibration run on 1/17/89. CCC (vinyl chloride) percent difference values were >25% for the continuing calibrations run on 1/25/89 and 1/26/89.

(3) Blanks - methylene chloride, toluene and chloroform values were quantitated in all Reagent Blanks. As a result, all positive values in the samples for these parameters are undetected and estimated (UJ). Methylene chloride, toluene and chloroform, were not detected in samples 10-74X5 dilution, 9-74X100 dilution and 43-87X100 dilution, therefore, no action was taken.

(4) Surrogates - surrogate criteria for BFB and toluene were exceeded for samples 9-74 and 43-87. All positive values for these samples are estimated (J) and all non-detects are undetected and estimated (UJ).

(5) Other QC - tetrachloroethene contamination at 35 ug/l found in the Trip Blank for samples collected on

1/12/89. All positive tetrachloroethene values are estimated (J) for samples 2-87, 4-87, and 4-87D.

(6) Compound Identification - the tetrachloroethene value for sample 43-87X100 dilution is currently estimated due to a missing tetrachloroethene MS spectra for the sample. Upon receipt of the spectra the result will be reevaluated and the results updated on the Data Validation Summary Table. Carbon tetrachloride values for sample 62-87, trichloroethene values for 2-87, and tetrachloroethene values for samples 4-87, 4-87D, 1/16/89 Trip Blank, 10-74, 52-87, and 52-87D are estimated (J) because instrument quantitation limits are not yet available from the laboratory.

Comments: Samples that do not meet surrogate recoveries are not currently being reanalyzed. Reagent Blank and Trip Blank contamination present. Instrument quantitation limits have not been supplied by laboratory to evaluate values less than the method detection limits. All values below method detection limits will be estimated (J) and quantified as acceptable until the quantitation limits are supplied.

Note: Worksheets and data summary forms are attached.

Robert J. Thielke
Reviewer Signature

06/02/89
Date

77357

TABLE #: 1-E88-0052 Page 1 of 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water ANALYTICAL RESULTS (ppb)

Sample Location		RGNTB	TRIP BLANK		FIELD BLANK		2-87		69-86		4-87		D4-87		
Sample Number															
Sampling Date			1/12/89		1/12/89		1/12/89		1/12/89		1/12/89		1/12/89		
Remarks															
Volatile Organic Compound	Detection Limit (ppb)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)	(DQ)
Chloromethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
Bromomethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
Vinyl Chloride	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Chloroethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
Methylene Chloride	5	4 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	
Acetone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Carbon Disulfide	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,1-Dichloroethene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,1-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,2-Dichloroethene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Chloroform	5	6 ppb	5 UJ	A	5 UJ	V	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	
1,2-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
2-Butanone	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	
1,1,1-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Carbon Tetrachloride	5		5 U	V	5 U	V	5 U	V	5 U	V	11 J	A	11 J	A	
Vinyl Acetate	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Bromodichloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,2-Dichloropropane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
cis-1,3 Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Trichloroethene	5		5 U	V	5 U	V	2 J	A	5 U	V	99	V	98	V	
Dibromochloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
1,1,2-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Benzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Trans-1,3-Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Bromoform	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
4-Methyl-2-pentanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
2-Hexanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	
Tetrachloroethene	5		34	V	5 U	V	35 J	A	5 U	V	5 J	A	5 J	A	
1,1,2,2-Tetrachloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Toluene	5	3 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	
Chlorobenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Ethylbenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Styrene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Xylene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	
Total volatile organic concentration (ppb)		13	34		0		37		0		115		114		0

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J Quantitation is approximate due to limitations identified during the quality control review (data validation).
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** Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

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TABLE #: 1-E88-0052 Page 2 of 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water ANALYTICAL RESULTS (ppb)

Sample Location		RGNTB	TRIP BLANK		FIELD BLANK		10-74		56-86		56-86D		70-86		5-87	
Sample Number																
Sampling Date			1/16/89		1/16/89		1/16/89		1/16/89		1/16/89		1/16/89		1/16/89	
Remarks																
Volatile Organic Compound	Detection Limit (ppb)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)
Chloromethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
Bromomethane	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
Vinyl Chloride	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Chloroethane	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Methylene Chloride	5	5 ppb	8 UJ	A	7 UJ	A	6 UJ	A	6 UJ	A	5 UJ	A	6 UJ	A	5 UJ	A
Acetone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Carbon Disulfide	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloroethene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Chloroform	5	8 ppb	5 UJ	A	5 UJ	A	22 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
1,2-Dichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
2-Butanone	10		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
1,1,1-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Carbon Tetrachloride	5		5 U	V	5 U	V	660 E	A	5 U	V	5 U	V	5 U	V	5 U	V
Vinyl Acetate	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Bromodichloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloropropane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
cis-1,3 Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Trichloroethene	5		5 U	V	5 U	V	410 E	A	5 U	V	5 U	V	5 U	V	5 U	V
Dibromochloromethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
1,1,2-Trichloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Benzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Trans-1,3-Dichloropropene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Bromoform	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
4-Methyl-2-pentanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
2-Hexanone	10		10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V	10 U	V
Tetrachloroethene	5		2 J	A	5 U	V	2 J	A	5 U	V	5 U	V	5 U	V	5 U	V
1,1,2,2-Tetrachloroethane	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Toluene	5	3 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
Chlorobenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Ethylbenzene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Styrene	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Xylene (Total)	5		5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V	5 U	V
Total volatile organic concentration (ppb)		16	2		0		1072		0		0		0		0	

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Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

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TABLE #: 1-E88-0052 Page 3 of 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water ANALYTICAL RESULTS (ppb)

Sample Location		52-87		D-52-87		10-74 R		RGNTB	TRIP BLANK		FIELD BLANK		3-87		8-87	
Sample Number						X5										
Sampling Date		1/16/89		1/16/89		1/16/89			1/23/89		1/23/89		1/23/89		1/23/89	
Remarks																
Volatile Organic Compound	Detection Limit (ppb)		(DQ)		(DQ)		(DQ)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)
Chloromethane	10	10 U	R	10 U	R	10 U	R		10 U	R	10 U	R	10 U	R	10 U	R
Bromomethane	10	10 U	R	10 U	R	10 U	R		10 U	V	10 U	V	10 U	V	10 U	V
Vinyl Chloride	10	10 U	V	10 U	V	10 U	V		10 U	R	10 U	R	10 U	R	10 U	R
Chloroethane	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Methylene Chloride	5	6 UJ	A	6 UJ	A	5 U	V	7 ppb	48 UJ	A	37 UJ	A	7 UJ	A	5 U	V
Acetone	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Carbon Disulfide	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1-Dichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloroethene (Total)	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Chloroform	5	5 UJ	A	5 UJ	A	5 U	V	9 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
1,2-Dichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
2-Butanone	10	10 U	R	10 U	R	10 U	R		72 J	A	26 J	A	10 U	R	10 U	R
1,1,1-Trichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Carbon Tetrachloride	5	5 U	V	5 U	V	810 J	A		5 U	V	5 U	V	5 U	V	5 U	V
Vinyl Acetate	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Bromodichloromethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,2-Dichloropropane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
cis-1,3 Dichloropropene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Trichloroethene	5	5 U	V	5 U	V	340	V		5 U	V	5 U	V	5 U	V	5 U	V
Dibromochloromethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1,2-Trichloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Benzene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Trans-1,3-Dichloropropene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Bromoform	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
4-Methyl-2-pentanone	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
2-Hexanone	10	10 U	V	10 U	V	10 U	V		10 U	V	10 U	V	10 U	V	10 U	V
Tetrachloroethene	5	1 J	A	2 J	A	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
1,1,2,2-Tetrachloroethane	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Toluene	5	5 UJ	A	5 UJ	A	5 U	V	4 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 UJ	A
Chlorobenzene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Ethylbenzene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Styrene	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Xylene (Total)	5	5 U	V	5 U	V	5 U	V		5 U	V	5 U	V	5 U	V	5 U	V
Total volatile organic concentration (ppb)		1		2		1150		20	72		26		0		0	

U Indicates the compound was not detected above the Required Quantitation Limit.
J *Quantitation is approximate due to limitations identified during the quality control review (data validation).*
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** Value is rejected due to blank contamination identified during the quality control review (data validation).
ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

TABLE #: 1-E88-0052 Page 4 of 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water ANALYTICAL RESULTS (ppb)

Sample Location		62-87		45-87		RGNTB	TRIP BLANK		FIELD BLANK		9-74		9-74		43-87	
Sample Number													X100			
Sampling Date		1/23/89		1/23/89			1/25/89		1/25/89		1/25/89		1/25/89		1/25/89	
Remarks																
Volatile Organic Compound	Detection Limit (ppb)		(DQ)		(DQ)	(DQ)		(DQ)		(DQ)		(DQ)		(DQ)		(DQ)
Chloromethane	10	10 U	R	10 U	R		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Bromomethane	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Vinyl Chloride	10	10 U	R	10 U	R		10 U	R	10 U	R	10 U	R	10 U	R	10 U	R
Chloroethane	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Methylene Chloride	5	5 U	V	5 U	V	7 ppb	6 UJ	A	5 UJ	A	5 UJ	A	5 U	V	5 UJ	A
Acetone	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Carbon Disulfide	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
1,1-Dichloroethene	5	5 U	V	5 U	V		5 U	V	5 U	V	7200 E	A	5300	V	4300 E	A
1,1-Dichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	180 J	A	5 U	V	150 J	A
1,2-Dichloroethene (Total)	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Chloroform	5	5 UJ	A	5 UJ	A	8 ppb	5 UJ	A	5 UJ	A	5 UJ	A	5 U	V	5 UJ	A
1,2-Dichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	17 J	A	5 U	V	16 J	A
2-Butanone	10	10 U	R	10 U	R		5 J	A	10 U	R	10 U	R	10 U	R	10 U	R
1,1,1-Trichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	4700 E	A	10000	V	5200 E	A
Carbon Tetrachloride	5	2 J	A	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Vinyl Acetate	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Bromodichloromethane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
1,2-Dichloropropane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
cis-1,3 Dichloropropene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Trichloroethene	5	5 U	V	5 U	V		5 U	V	5 U	V	2800 E	A	7900	V	2800 E	A
Dibromochloromethane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
1,1,2-Trichloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	39 J	A	5 U	V	29 J	A
Benzene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Trans-1,3-Dichloropropene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Bromoform	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
4-Methyl-2-pentanone	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
2-Hexanone	10	10 U	V	10 U	V		10 U	V	10 U	V	10 UJ	A	10 U	V	10 UJ	A
Tetrachloroethene	5	5 U	V	5 U	V		5 U	V	5 U	V	780 E	A	5 U	V	1400 E	A
1,1,2,2-Tetrachloroethane	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	V	5 U	V	5 UJ	A
Toluene	5	5 UJ	A	5 UJ	A	4 ppb	5 UJ	A	5 UJ	A	8 UJ	A	5 U	V	9 UJ	A
Chlorobenzene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	V	5 U	V	5 UJ	A
Ethylbenzene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Styrene	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Xylene (Total)	5	5 U	V	5 U	V		5 U	V	5 U	V	5 UJ	A	5 U	V	5 UJ	A
Total volatile organic concentration (ppb)		2		0		19	0		0		15716		23200		15245	

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ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1

TABLE #: 1-E88-0052 Page 5 of 5
SITE NAME: Area 2 - 881 Hillside
SAMPLING DATE: 1/12, 16, 23, 25/89
CLP VOLATILE ORGANIC ANALYSIS: Low Water ANALYTICAL RESULTS (ppb)

Sample Location		43-87							
Sample Number		X100							
Sampling Date		1/25/89							
Remarks									
Volatile Organic Compound	Detection Limit (ppb)	(DQ)	(DQ)	(DQ)	(DQ)	(DQ)	(DQ)	(DQ)	(DQ)
Chloromethane	10	10 U V							
Bromomethane	10	10 U V							
Vinyl Chloride	10	10 U R							
Chloroethane	10	10 U V							
Methylene Chloride	5	5 U V							
Acetone	10	10 U V							
Carbon Disulfide	5	5 U V							
1,1-Dichloroethene	5	6300 V							
1,1-Dichloroethane	5	180 V							
1,2-Dichloroethene (Total)	5	5 U V							
Chloroform	5	5 U V							
1,2-Dichloroethane	5	5 U V							
2-Butanone	10	10 U R							
1,1,1-Trichloroethane	5	15000 V							
Carbon Tetrachloride	5	5 U V							
Vinyl Acetate	10	10 U V							
Bromodichloromethane	5	5 U V							
1,2-Dichloropropane	5	5 U V							
cis-1,3 Dichloropropene	5	5 U V							
Trichloroethene	5	11000 V							
Dibromochloromethane	5	5 U V							
1,1,2-Trichloroethane	5	5 U V							
Benzene	5	5 U V							
Trans-1,3-Dichloropropene	5	5 U V							
Bromoform	5	5 U V							
4-Methyl-2-pentanone	10	10 U V							
2-Hexanone	10	10 U V							
Tetrachloroethene	5	3400 J A							
1,1,2,2-Tetrachloroethane	5	5 U V							
Toluene	5	5 U V							
Chlorobenzene	5	5 U V							
Ethylbenzene	5	5 U V							
Styrene	5	5 U V							
Xylene (Total)	5	5 U V							
Total volatile organic concentration (ppb)		35880							

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ppb Parts per billion.

DQ Data Qualifier
V Valid
A Acceptable with qualifications
R Rejected, data unusable
E Exceeds Calib. range; diluted & reanalyzed Form V-1