

NEW YORK STATE SUPERFUND CONTRACT

REMEDIAL INVESTIGATION/ FEASIBILITY STUDY (RI/FS)

Volume IV • Appendix H

Frost Street Sites

Former Autoline Automotive (Site No. 1-30-043 I)

89 Frost Street (Site No. 1-30-043 L)

Former Applied Fluidics (Site No. 1-30-043 M)

Off-Site Investigation (Site No. 1-30-043)

Work Assignment No. D002676-32

DATE: August 1999



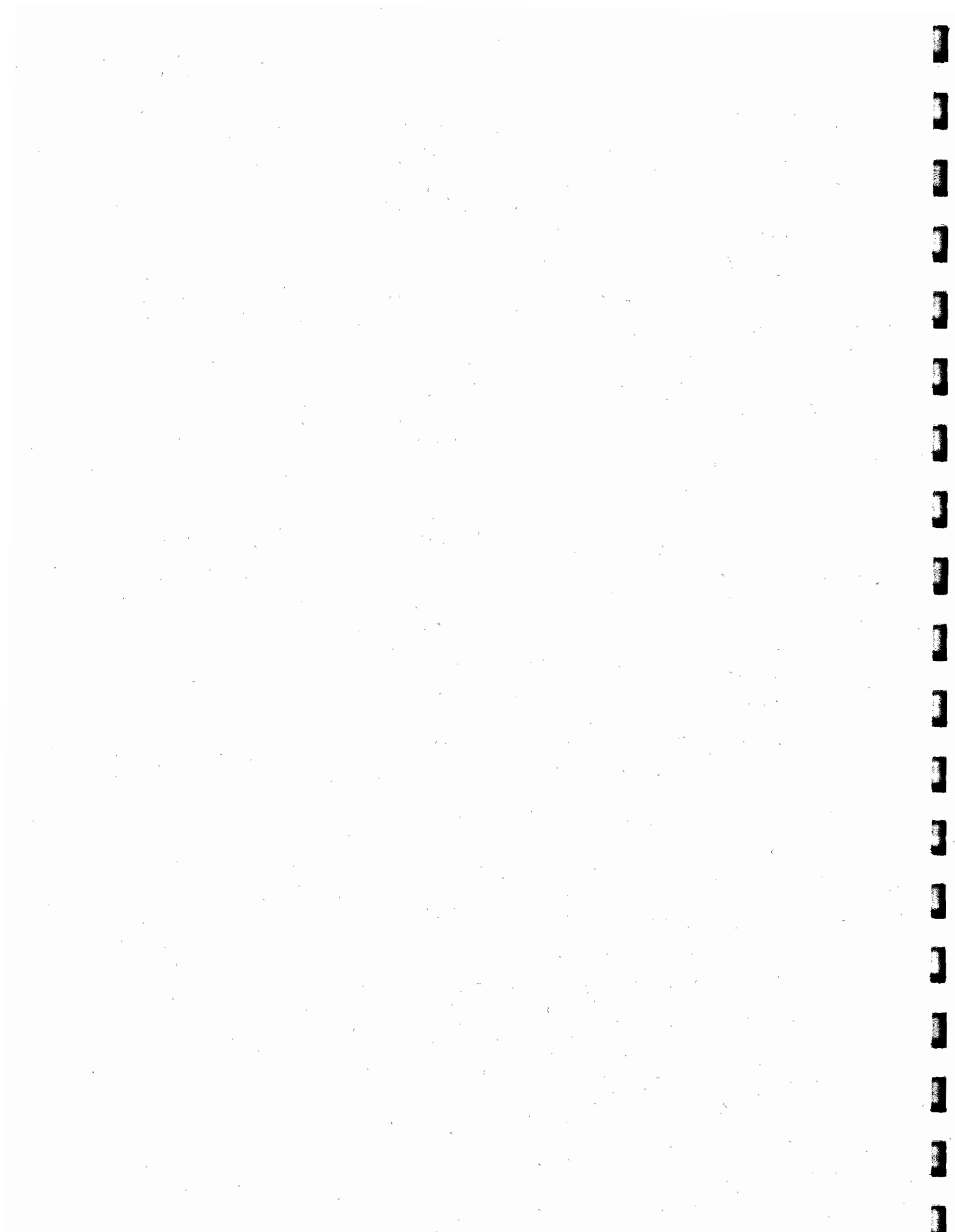
Prepared for:

New York State Department of Environmental Conservation

50 Wolf Road, Albany, New York 12233
John Cahill, *Commissioner*

Division of Environmental Remediation
Michael J. O'Toole, Jr., *Director*

By:
Lawler, Matusky & Skelly Engineers LLP



VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2 Level: Low
 Tune File ID: B8173 Acceptable: yes Time Requirements Met: yes
 Initial Calibration File ID: B8175 Date: 09/27/98 Page: 88
 Associated Samples: VBLKBV281, Trip Blank, 86973, 86973MS, 86973MSD, 86974, 86975, 86976,
 VBLKBV280, 86972, 86977, VBLKBV282, 8291BS

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Benzene	Chlorobenzene
PPB		
10	1184228/4183299 * 5.000 = 1.415	820318/3310595 * 5.000 = 1.239
20	1903806/4087808 * 2.500 = 1.164	1318382/3123792 * 2.500 = 1.055
50	4145709/3452176 * 1.000 = 1.201	2909469/2681112 * 1.000 = 1.085
100	7485793/3737680 * 0.500 = 1.001	5497171/2906105 * 0.500 = 0.946
200	13538408/3452017 * 0.250 = 0.980	10454787/2857002 * 0.250 = 0.915
AV. RRF = 1.152	%RSD = 15.3%	AV. RRF = 1.048 %RSD = 12.3%

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B8376	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B8377	Date: 10/08/98	Page: 111
Initial Calibration File ID: B8175	Date: 09/27/98	Page: 88
Associated Samples: VBLKBV281, Trip Blank, 86973, 86973MS, 86973MSD, 86974, 86975, 86976		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethane	Benzene
PPB		
50	2915471/1144365 * 1.000 = 2.548	4202442/3917263 * 1.000 = 1.073
%D:	(2.854 - 2.548) / 2.854 * 100 = 10.721794	%D: (1.152 - 1.073) / 1.152 * 100 = 6.857639

METHOD BLANK: VBLKBV281 (Page 137)

Compound	ppb	<CRDL
Acetone	6J	10

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 30, 1998
Sample Delivery Group: H7281

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSGP-2 63-64 (Lab. #: 86977)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	6 J	12 B	12 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.8 J	0.8 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Propane, 2-methoxy-2-methyl- (8.17)	ND	6 NJ	6 NJ		
Unknown Siloxane (15.75)	ND	12 J	12 J	qualify	61
Unknown Siloxane (17.69)	ND	21 J	21 J	qualify	61

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Water Volatile Organic Analyses - Method 95-1

Samples Received: September 30, 1998

Sample Delivery Group: H7281

Laboratory Reference Numbers:

Trip Blank	86978
FSGP-1 91-92	86972
FSGP-1 80-81	86973
FSGP-1 80-81MS	86973MS
FSGP-1 80-81MSD	86973MSD
FSGP-1 60-61	86974
FSGP-2 91-92	86975
FSGP-2 79-80	86976
FSGP-2 63-64	86977

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 30, 1998
Sample Delivery Group: H7281

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSGP-2 91-92 (lab. #: 86975)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	6 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.9 J	0.9 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
1-Propene, 2-methyl- (4.81)	ND	9 NJ	9 NJ		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 30, 1998
Sample Delivery Group: H7281

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample FSGP-2 79-80 (Lab. #: 86976)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	6 J	32 B	32 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	12	12		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.8 J	0.8 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.3 J	0.3 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.6 J	0.6 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Hexanal (13.83)	ND	6 NJ	6 NJ		
Unknown Alkane (15.16)	ND	8 J	8 J		
Unknown Siloxane (19.79)	ND	8 J	8 J	qualify	61

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 30, 1998
Sample Delivery Group: H7281

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSGP-1 80-81 (Lab. #: 86973)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	6 J	11 B	11 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.2 J	0.2 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.7 J	0.7 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.4 J	0.4 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (17.74)	ND	8 J	8 J	qualify	64
Unknown Siloxane (19.77)	ND	10 J	10 J	qualify	64

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 30, 1998
Sample Delivery Group: H7281

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSGP-1 60-61 (Lab. #: 86974)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	6 J	13 B	13 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.3 J	0.3 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (19.79)	ND	7 J	7 J	qualify	64

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 30, 1998
Sample Delivery Group: H7281

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 86978)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	4 J	4 J		
Acetone	6 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 30, 1998
Sample Delivery Group: H7281

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSGP-1 91-92 (Lab. #: 86972)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	6 J	19 B	19 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.3 J	0.3 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
C4H8 Alkane (4.76)	ND	8 J	8 J		

Holding Times

All samples were analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with the initial or continuing calibrations of this sample delivery group.

Matrix Spike / Matrix Spike Duplicate

Sample FSGP-1 80-81 (Lab. #: 86973) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Low concentrations of acetone were detected in several of the method blanks of this sample delivery group. These were negated whenever they were detected in an associated sample.

The specific method blanks and their associated samples are noted in both the data validation summary table and in the data validation worksheets.

Trip Blanks

A low concentration of methylene chloride (1J ug/l) was detected in the trip blank received on 9/18.

Methylene chloride was not detected in either the associated method blank or in any of the samples of this delivery group..

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Several non-target siloxane compounds were detected in some of the samples of this delivery group. These are generally laboratory artifacts cause by column bleed. Whenever these were detected in a sample they were flagged with the "J" qualifier and footnoted with #64 in the data validation summary table.

No other problems were found with the reported results of any of the samples of this delivery group.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Lab Number ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
H7281	9/30/98	95	Trip Blank	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-1 91-92	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-1 80-81	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-1 80-81MS	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-1 80-81MSD	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-1 60-61	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-2 91-92	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-2 79-80	Water	Yes	NA	NA	NA		
H7281	9/30/98	95	FSGP-2 63-64	Water	Yes	NA	NA	NA		

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JAN 11 1999

For Hazardous Waste Section

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Water Volatile Organic Analyses - Method 95-1

Samples Received: September 30, 1998

Sample Delivery Group: H7281

Laboratory Reference Numbers:

Trip Blank	86978
FSGP-1 91-92	86972
FSGP-1 80-81	86973
FSGP-1 80-81MS	86973MS
FSGP-1 80-81MSD	86973MSD
FSGP-1 60-61	86974
FSGP-2 91-92	86975
FSGP-2 79-80	86976
FSGP-2 63-64	86977

Water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

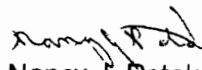
JAN 11 1999

* - Indicates that all criteria were met for this parameter.

For Hazardous Waste Section

DATA VALIDATION SUMMARY

No significant problems were found with the analyses of these samples which would affect the end use of the data.



Nancy J. Potak
December 9, 1998

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B8191	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B8192	Date: 09/28/98	Page: 193
Initial Calibration File ID: B8175	Date: 09/27/98	Page: 165
Associated Samples: VBLKBV271, 84715		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,2-Dichloroethane	Toluene
PPB		
50	1589290/1102133 * 1.000 = 1.442	4040233/3015656 * 1.000 = 1.34
%D: (1.748 - 1.442) / 1.748 * 100 = 17.505721	%D: (1.522 - 1.340) / 1.340 * 100 = 13.58209	

METHOD BLANK: VBLKBV271 (Page 230)

Compound	ppb	<CRDL
Methylene Chloride	0.8J	10
Acetone	9J	10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2 Level: Low
Tune File ID: B8173 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: B8175 Date: 09/27/98 Page: 165
Associated Samples: VBLKBV270, 84716, 84717, 84718, 84719, 84720, Trip Blank, VBLKBV271, 84715

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes
All Compounds Average RRF > 0.05: yes
All Compounds %RSD < QC Limit: yes
All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Benzene	Chlorobenzene
PPB		
10	1184228/4183299 * 5.000 = 1.415	820318/3310595 * 5.000 = 1.239
20	1903806/4087808 * 2.500 = 1.164	1318382/3123792 * 2.500 = 1.055
50	4145709/3452176 * 1.000 = 1.201	2909469/2681112 * 1.000 = 1.085
100	7485793/3737680 * 0.500 = 1.001	5497171/2906105 * 0.500 = 0.946
200	13538408/3452017 * 0.250 = 0.980	10454787/2857002 * 0.250 = 0.915

AV. RRF = 1.152

%RSD = 15.3%

AV. RRF = 1.048

%RSD = 12.3%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B8173	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B8175	Date: 09/27/98	Page: Not Numbered - 1/6 revision
Initial Calibration File ID: B8175	Date: 09/27/98	Page: 165
Associated Samples: VBLKBV270, 84716, 84717, 84718, 84719, 84720, Trip Blank		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethane	1,1,2,2-Tetrachloroethane
PPB		
50	2955024/996093 * 1.000 = 2.967	2887541/2681112 * 1.000 = 1.077
%D: (2.854 - 2.967) / 2.854 * 100 = -3.959355	%D: (1.017 - 1.077) / 1.017 * 100 = -5.899705	

METHOD BLANK: VBLKBV270 (Page 224)

Compound	ppb	<CRDL
Acetone	9J	10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B8033	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B8034	Date: 9/18/98	Page: 184
Initial Calibration File ID: B7935	Date: 9/12/98	Page: 149
Associated Samples: VBLKBV261, 84259, 84260, 84261, 84262, Trip Blank, 8217BS		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Bromomethane	Benzene
PPB		
50	589546/1007326 * 1.000 = 0.585	3632647/3476250 * 1.000 = 1.045
	%D: (0.676 - 0.585) / 0.676 * 100 = 13.461538	%D : (1.020 - 1.045) / 1.020 * 100 = -2.45098

METHOD BLANK: VBLKBV261 (Page 212)

Compound	ppb	<CRDL
Methylene Chloride	0.8J	10
Acetone	10	10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS **CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B8055	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B8057	Date: 9/19/98	Page: 188
Initial Calibration File ID: B7935	Date: 9/12/98	Page: 149
Associated Samples: VBLKBV262, 84261MS, 84261MSD		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Trichloroethene	Tetrachloroethene
PPB		
50	1649184/3579864 * 1.000 = 0.461	1320903/2881438 * 1.000 = 0.458
	%D: (0.527 - 0.461) / 0.527 * 100 = 12.5237	%D: (0.572 - 0.458) / 0.572 * 100 = 19.93007

METHOD BLANK: VBLKBV262 (Page 219)

Compound	ppb	<CRDL
No compounds were detected in this method blank		

OVERALL ASSESSMENT AND COMMENTS: ok

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Water Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151
Laboratory Reference Numbers:

Received 9/16

Trip Blank	84262
101DWA12 90-91	84259
101DWA12 79-80	84260
101DWA12 63-64	84261
101DWA12 63-64MS	84261MS
101DWA12 63-64MSD	84261MSD

Received 9/18

Trip Blank	84721
101DWA-7 90-91	84715
101DWA-7 80-81	84716
101DWA-7 63-64	84717
101DWA-13 90-91	84718
101DWA-13 79-80	84719
101DWA-13 63-64	84720

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B7933	Acceptable: yes	Time Requirements Met: yes
Initial Calibration File ID: B7935	Date: 9/12/98	Page: 149
Associated Samples: VBLKBV261, 84259, 84260, 84261, 84262, Trip Blank, 8217BS, VBLKBV262, 84261MS, 84261MSD		

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.05: yes
 All Compounds %RSD < QC Limit: yes
 All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Toluene
PPB		
10	288108/948384 * 5.000 = 1.519	894692/2520486 * 5.000 = 1.775
20	437133/894717 * 2.500 = 1.221	1443104/2358620 * 2.500 = 1.530
50	1097218/979672 * 1.000 = 1.120	3519826/2493225 * 1.000 = 1.412
100	1926547/912653 * 0.500 = 1.055	6224154/2433734 * 0.500 = 1.279
200	3886684/875556 * 0.250 = 1.110	12147033/2265255 * 0.250 = 1.341
AV. RRF = 1.205	%RSD = 15.4%	AV. RRF = 1.467 %RSD = 13.3%

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-13 79-80 (Lab. #: 84719) Received 9/18					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	9 J	38 B	38 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	9 J	9 J		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	1 J	1 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Acetaldehyde (5.09)	ND	7 NJ	7 NJ		
C4H8O Unknown (9.38)	ND	5 J	5 J		
Hexanal (13.87)	ND	7 NJ	7 NJ		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-13 63-64 (Lab. #: 84720) Received 9/18					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	9 J	6 JB	6 JB	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (15.83)	ND	13 J	13 J	qualify	64
Unknown Siloxane (17.80)	ND	7 J	7 J	qualify	64

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-7 63-64 (Lab. #: 84717) Received 9/18					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	0.7 J	0.7 J	J negate	5
Acetone	9 J	21 B	21 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	7 J	7 J		
1,1,1-Trichloroethane	10 U	4 J	4 J		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	3 J	3 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.9 J	0.9 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample 101-DWA-13 90-91 (Lab. #: 84718) Received 9/18					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	9 J	14 B	14 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.6 J	0.6 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.7 J	0.7 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-7 90-91 (Lab. #: 84715) Received 9/18					
TCL Volatile Organics	(Diluted 2X)				
Chloromethane	10 U	20 U	20 U		
Bromomethane	10 U	20 U	20 U		
Vinyl Chloride	10 U	20 U	20 U		
Chloroethane	10 U	20 U	20 U		
Methylene Chloride	0.8 J	1 JB	1 JB	negate	1
Acetone	9 J	400 B	400 B	J qualify	3
Carbon Disulfide	10 U	20 U	20 U		
1,1-Dichloroethene	10 U	20 U	20 U		
1,1-Dichloroethane	10 U	20 U	20 U		
1,2-Dichloroethene (total)	10 U	20 U	20 U		
Chloroform	10 U	20 U	20 U		
1,2-Dichloroethane	10 U	20 U	20 U		
2-Butanone	10 U	74	74		
1,1,1-Trichloroethane	10 U	20 U	20 U		
Carbon Tetrachloride	10 U	20 U	20 U		
Bromodichloromethane	10 U	20 U	20 U		
1,2-Dichloropropane	10 U	20 U	20 U		
cis-1,3-Dichloropropene	10 U	20 U	20 U		
Trichloroethene	10 U	20 U	20 U		
Dibromochloromethane	10 U	20 U	20 U		
1,1,2-Trichloroethane	10 U	20 U	20 U		
Benzene	10 U	4 J	4 J		
trans-1,3-Dichloropropene	10 U	20 U	20 U		
Bromoform	10 U	20 U	20 U		
4-Methyl-2-Pentanone	10 U	4 J	4 J		
2-Hexanone	10 U	20 U	20 U		
Tetrachloroethene	10 U	20 U	20 U		
1,1,2,2-Tetrachloroethane	10 U	20 U	20 U		
Toluene	10 U	3 J	2 J		
Chlorobenzene	10 U	20 U	20 U		
Ethylbenzene	10 U	20 U	20 U		
Styrene	10 U	20 U	20 U		
Xylene (total)	10 U	1 J	1 J		
Non-Target Volatile Organics					
Acetaldehyde (5.04)	ND	18 NJ	18 NJ		
Unknown (9.34)	ND	33 J	33 J		
Unknown (11.81)	ND	24 J	24 J		
Unknown Ketone (13.53)	ND	28 J	28 J		
Hexanal (13.84)	ND	47 NJ	47 NJ		
Unknown (15.16)	ND	60 J	60 J		
Heptanal (15.49)	ND	16 NJ	16 NJ		
Unknown (16.23)	ND	14 J	14 J		
Unknown (16.47)	ND	12 J	12 J		
Unknown (18.16)	ND	14 J	14 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-7 80-81 (Lab. #: 84716) Received 9/18					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	0.7 J	0.7 J	J negate	5
Acetone	9 J	12 B	12 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	1 J	1 J		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	13	13		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	7 J	7 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA12 63-64 (Lab. #: 84261) Received 9/16					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	10 U	10 U		
Acetone	10	24 B	24 B	J	negate
Carbon Disulfide	10 U	10 U	10 U		1
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	6 J	6 J		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.4 J	0.4 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.7 J	0.7 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Trip Blank (Lab. #: 84721) Received 9/18					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	1 J	1 J		
Acetone	9 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA12 90-91 (Lab. #: 94259) Received 9/16					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	10 U	10 U		
Acetone	10	36 B	36 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	7 J	7 J		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.4 J	0.4 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
C4H8 Alkane (4.85)	ND	14 J	14 J		
Unknown Alkane (6.38)	ND	5 J	5 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA12 79-80 (Lab. #: 84260) Received 9/16					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	10 U	10 U		
Acetone	10	27 B	27 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	8 J	8 J		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.8 J	0.8 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Alkane (15.20)	ND	6 J	6 J		
Unknown Siloxane (19.85)	ND	6 J	6 J	qualify	64

Low concentrations of methylene chloride (2JB ug/l) and acetone (6JB ug/l) were detected in the trip blank received on 9/16. Both of these compounds were negated from this trip blank based upon their presence in the associated method blank.

A low concentration of methylene chloride (1J ug/l) was detected in the trip blank received on 9/18.

Methylene chloride was not detected in the associated method blank.

Methylene chloride was negated from samples 101DWA-7 80-81 (84716) and 101DWA-7 63-64 (84717) due to its presence in the 9/18 trip blank.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Several non-target siloxane compounds were detected in some of the samples of this delivery group. These are generally laboratory artifacts caused by column bleed. Whenever these were detected in a sample they were flagged with the "J" qualifier and footnoted with #64 in the data validation summary table.

No other problems were found with the reported results of any of the samples of this delivery group.

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 84262) Received 9/16					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	2 JB	2 JB	negate	1
Acetone	10	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

DATA VALIDATION SUMMARY

The continuing calibration summary form for B8177 was not included in this sample delivery group. This was received from the laboratory in their 1/6 resubmission.

The revised data received on this date were submitted without page numbers. Also, a revision date was not noted on these forms or case narrative. The laboratory was requested to submit another copy of the resubmission with these changes.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
January 11, 1999

Holding Times

All samples were analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with any of the three initial calibrations of this sample delivery group.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

The continuing calibration summary form for B8177 was not included in this sample delivery group. This was received from the laboratory in their 1/6 resubmission.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample 101DWA12 63-64 (Lab. #: 84261) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Low concentrations of methylene chloride and/or acetone were detected in several of the method blanks of this sample delivery group. These were negated whenever they were detected in an associated sample.

The specific method blanks and their associated samples are noted in both the data validation summary table and in the data validation worksheets.

Trip Blanks

Two trip blanks were analyzed with this sample delivery group.

SUMMARY OF THE ANALYTICAL DATA VALIDATION For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
H3151	9/16/98	95	Trip Blank	84262	W	Yes - *	NA	NA	NA		
H3151	9/16/98	95	101DWA12 90-91	84259	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	101DWA12 79-80	84260	W	Yes - *	NA	NA	NA		
H3151	9/16/98	95	101DWA12 63-64	84261	W	Yes - *	NA	NA	NA		
H3151	9/16/98	95	101DWA12 63-64MS	84261MS	W	Yes - *	NA	NA	NA		
H3151	9/16/98	95	101DWA12 63-64MSD	84261MSD	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	Trip Blank	84721	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	101DWA-7 90-91	84715	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	101DWA-7 80-81	84716	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	101DWA-7 63-64	84717	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	101DWA-13 90-91	84718	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	101DWA-13 79-80	84719	W	Yes - *	NA	NA	NA		
H3151	9/18/98	95	101DWA-13 63-64	84720	W	Yes - *	NA	NA	NA		

* - With 1/6 resubmissions.

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For Hazardous Waste Section

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Water Volatile Organic Analyses - Method 95-1
Samples Received: September 16th and 18th, 1998
Sample Delivery Group: H3151
Laboratory Reference Numbers:

Received 9/16	
Trip Blank	84262
101DWA12 90-91	84259
101DWA12 79-80	84260
101DWA12 63-64	84261
101DWA12 63-64MS	84261MS
101DWA12 63-64MSD	84261MSD

Received 9/18	
Trip Blank	84721
101DWA-7 90-91	84715
101DWA-7 80-81	84716
101DWA-7 63-64	84717
101DWA-13 90-91	84718
101DWA-13 79-80	84719
101DWA-13 63-64	84720

Water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

It is possible that the concentration of copper reported in this sample may have been overestimated. The copper data was flagged with the "J" qualifier and footnoted with #37 in the data validation summary table.

The post digestion spike recovery of copper was 102%.

Duplicate Analysis

Soil Sample 101DW11-SS (Lab. #: 84252) of this sample delivery group was also used for the matrix duplicate for the full inorganic TCL analyte list. All recoveries which could be calculated were within the acceptable limits with the following exception:

Analyte	RPD
Iron	33%

The iron data should be considered to be estimated. This was flagged with the "J" qualifier and footnoted with #43 in the data validation summary table.

Laboratory Control Sample

No problems were detected with the recoveries of the soil LCS standard.

Serial Dilutions

Soil Sample 101DW11-SS (Lab. #: 84252) of this sample delivery group was also used for the serial dilution. All of the percent differences which could be calculated were within the required quality assurance limits.

Instrument Detection Limit

No problems with the instrument detection limits were found.

ICP Linear Ranges

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No problems, other than those above, were found with any of the sample data.

Data Validation Summary Table
For Frost Street Sites

Soil Inorganic and Cyanide Analyses
Sample Received: September 16, 1998
Sample Delivery Group: H3142

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Soil Sample 101DW11-SS (Lab. #: 84252)					
		% Solids = 89.1			
Aluminum	18.980 U	1,290.00	1,297.02		
Antimony	0.740 U	0.82 U	0.82 U		
Arsenic	0.680 U	0.76 U	0.76 U		
Barium	0.200 U	8.80 B	8.82 B		
Beryllium	0.040 U	0.05 B	0.05 B		
Cadmium	0.080 U	0.35 B	0.35 B		
Calcium	25.200 U	8,960.00	8,958.67		
Chromium	0.260 U	4.80	4.81		
Cobalt	0.200 U	1.40 B	1.35 B		
Copper	0.340 U	54.80 N	54.85 N	J	37
Iron	9.920 U	4,160.00 *	4,158.19 *	J	43
Lead	0.540 U	98.70	98.72		
Magnesium	17.100 U	2,910.00	2,904.73		
Manganese	0.100 U	44.10	44.07		
Mercury	0.050 U	0.06 U	0.06 U		
Nickel	0.320 U	3.80 B	3.84 B		
Potassium	-49.439 B	34.90 U	34.89 U		
Selenium	0.740 U	0.82 U	0.82 U		
Silver	0.200 U	0.22 U	0.22 U		
Sodium	86.829 B	158.00 B	147.66 B		
Thallium	0.920 U	1.00 U	1.02 U		
Vanadium	0.300 U	8.20 B	8.23 B		
Zinc	0.600 U	84.60	84.61		
Cyanide	0.500 U	0.56 U	0.56 U		

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

Soil TAL Inorganic and Cyanide Analyses

Samples Received: September 16, 1998

Sample Delivery Group: H3142

Laboratory Reference Numbers:

Soil Sample 101DW11-SS	84252
Soil Sample 101DW11-SSMS	84252MS
Soil Sample 101DW11-SSMD	84252MD

Soil samples were received for TAL metals analyses by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
 - CRDL Standards
- * - ICP Interference Check Sample
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
 - Field Blanks
- * - Preparation Blanks
 - Matrix Spike
 - Duplicate Analyses
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

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JAN 11 1999

For Hazardous Waste Section

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

The chain of custody form notes that organic samples were received with this sample delivery group, but they were not reported in this analytical package.

The high matrix spike recovery of copper (144%) in the soil sample should be noted. It is possible that the copper concentration reported in this sample may have been overestimated.

The high RPD of iron (33%) in the matrix duplicate analysis should be noted. The data for this analyte should be considered to be estimated.

No other problems significant problems were found which would affect the end use of the data.


Nancy J. Potak
December 15, 1998.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits with the following exceptions:

Analyte	Initial % Recovery	Final % Recovery
Lead	128%	(OK)

The concentration of lead detected in this sample was too high to have been affected by the high CRDL standard recovery.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Several analytes were found in the preparation blank at concentrations between the absolute value of CRDL and instrument detection limit. The data were not required to be qualified for these low concentrations.

Calibration Blanks

Several analytes were found in the continuing calibration blanks at concentrations between the CRDL and instrument detection limit. The data were not required to be qualified for these low concentrations.

Field Blank

A field blank was not submitted with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

All of the traditional furnace analytes were also included in solution AB.

Matrix Spike Recovery

Soil Sample 101DW11-SS (Lab. #: 84252) of this sample delivery group was used for the matrix spike. All recoveries were within the 75% - 125% quality assurance limits with the following exceptions:

Analyte	%Rec.
Copper	144

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = A_{is}/A_x * C_{is}/C_s)$$

COMPOUND: 2,4-Dinitrotoluene
PPB

Anthracene

$$50 \quad 342301/576302 * 0.800 = 0.475$$

$$1408669/1182474 * 0.800 = 0.953$$

PERCENT DIFFERENCE:

$$(0.513 - 0.475) / 0.513 * 100 = 7.407407$$

$$(0.915 - 0.953) / 0.915 * 100 = -4.153005$$

SUMMARY OF THE ANALYTICAL DATA VALIDATION For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page In CLP	Non-Compliance
H3142	9/16/98	95	101DW11-SS	84252	S	NA	NA	Yes	Yes		
H3142	9/16/98	95	101DW11-SSMS	84252MS	S	NA	NA	Yes	Yes		
H3142	9/16/98	95	101DW11-SSMD	84252MD	S	NA	NA	Yes	Yes		

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For Hazardous Waste Section

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	Nitrobenzene	Benzo(k)fluoranthene
PPB		
20	$338525/982316 * 2.000 = 0.689$	$672842/905191 * 2.000 = 1.487$
50	$757471/981831 * 0.800 = 0.617$	$1512785/865427 * 0.800 = 1.398$
80	$1178962/994893 * 0.500 = 0.593$	$2386611/888149 * 0.500 = 1.344$
120	$1693166/1013165 * 0.333 = 0.556$	$2956475/887277 * 0.333 = 1.111$
160	$2108073/1030471 * 0.250 = 0.511$	$3787336/918604 * 0.250 = 1.031$
AV. RRF = 0.593	%RSD = 11.2%	AV. RRF = 1.274 %RSD = 15.3%

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS1

Tune File ID: R5946

Initial Calibration File ID: R5947

Initial Calibration File ID: R5947

Associated Samples: SBLKSB261B, 4645BS, 101DW11-SS-IMS

Acceptable: yes

Date: 10/14/98

Date: 10/14/98

Time Requirements Met: yes

Page: 424

Page: 336

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: 2-Chlorophenol
PPB

Chrysene

50 868731/454873 * 0.800 = 1.528

1549293/939263 * 0.800 = 1.320

PERCENT DIFFERENCE:

$$(1.381 - 1.528) / 1.381 * 100 = -10.644461$$

$$(1.234 - 1.320) / 1.234 * 100 = -6.969206$$

METHOD BLANK: SBLKSB261B (Page 451)

Compound	ppb	<CRDL
Unknown Aldol Condensate (8.95)	160AJ	NA
Unknown Aldol Condensate (9.76)	1000AJ	NA
Unknown Aldol Condensate (10.46)	31000AJ	NA
Unknown Aldol Condensate (11.12)	170AJ	NA
Unknown Aldol Condensate (11.72)	2300AJ	NA
Unknown Aldol Condensate (12.82)	190AJ	NA

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 1 of 2)**

Instrument ID: XBNAMS1

Tune File ID: R5946

Initial Calibration File ID: R5947

Associated Samples: 4645BS, 101DW11-SS-1MS

Acceptable: yes

Date: 10/14/98

Time Requirements Met: yes

Page: 336

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether *	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

Footnote:

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	Naphthalene	Phenanthrene
PPB		
20	$1115973/1875375 * 2.000 = 1.190$	$1202152/2194896 * 2.000 = 1.095$
50	$2525636/1848087 * 0.800 = 1.093$	$2583441/2126749 * 0.800 = 0.972$
80	$3620658/1842574 * 0.500 = 0.982$	$3837120/2176466 * 0.500 = 0.882$
120	$4709917/1783302 * 0.333 = 0.879$	$5295032/2103090 * 0.333 = 0.838$
160	$5394226/1635447 * 0.250 = 0.825$	$6735573/1975997 * 0.250 = 0.852$
AV. RRF = 0.994	%RSD = 15.1%	AV. RRF = 0.928 %RSD = 11.5%

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS1

Tune File ID: R5882

Calibration File ID: R5883

Initial Calibration File ID: R5380

Associated Samples: 101DW11-SS1-, 101DW11-SS1-MS

Acceptable: yes

Date: 10/07/98

Date: 10/05/98

Time Requirements Met: yes

Page: 415

Page: 317

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: September 16, 1998

Sample Delivery Group: H3141

Laboratory Reference Numbers:

101DW11-SS-1	84252
101DW11-SS-1MS	84252MS
101DW11-SS-1MSD	84252MSD

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 1 of 2)**

Instrument ID: XBNAMS1

Tune File ID: R5829

Initial Calibration File ID: R5380

Associated Samples: 101DW11-SS1-, 101DW11-SS1-MS

Acceptable: yes

Date: 10/05/98

Time Requirements Met: yes

Page: 317

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether*	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

Footnote:

Soil TCL Semivolatile Organic Analyses - Method 95-2
Samples Received: September 16, 1998
Sample Delivery Group: H3141

Sample Delivery Group: H3141		Method	Lab.	QA		
		Blank	Reported	Validation		
		Conc.	Conc.	Reported		
				Conc.		
Sample / Analyte		(PPB)	(PPB)	Decision	Qualifiers	Footnotes
Sample 101DW11-SS-1 (Lab. #: 84252)						
TCL Semivolatile Organics		(Diluted 5X)				
			% Moisture = 11			
Phenol		330 U	1,800 U	1,900 U		
bis(2-Chloroethyl)Ether		330 U	1,800 U	1,900 U		
2-Chlorophenol		330 U	1,800 U	1,900 U		
1,3-Dichlorobenzene		330 U	1,800 U	1,900 U		
1,4-Dichlorobenzene		330 U	1,800 U	1,900 U		
1,2-Dichlorobenzene		330 U	1,800 U	1,900 U		
2-Methylphenol		330 U	1,800 U	1,900 U		
bis(2-Chloroisopropyl)ether		330 U	1,800 U	1,900 U		
4-Methylphenol		330 U	1,800 U	1,900 U		
N-Nitroso-di-n-propylamine		330 U	1,800 U	1,900 U		
Hexachloroethane		330 U	1,800 U	1,900 U		
Nitrobenzene		330 U	1,800 U	1,900 U		
Isophorone		330 U	1,800 U	1,900 U		
2-Nitrophenol		330 U	1,800 U	1,900 U		
2,4-Dimethylphenol		330 U	1,800 U	1,900 U		
bis(2-Chloroethoxy)methane		330 U	1,800 U	1,900 U		
2,4-Dichlorophenol		330 U	1,800 U	1,900 U		
1,2,4-Trichlorobenzene		330 U	1,800 U	1,900 U		
Naphthalene		330 U	1,800 U	1,900 U		
4-Chloroaniline		330 U	1,800 U	1,900 U		
Hexachlorobutadiene		330 U	1,800 U	1,900 U		
4-Chloro-3-methylphenol		330 U	1,800 U	1,900 U		
2-Methylnaphthalene		330 U	1,800 U	1,900 U		
Hexachlorocyclopentadiene		330 U	1,800 U	1,900 U		
2,4,6-Trichlorophenol		330 U	1,800 U	1,900 U		
2,4,5-Trichlorophenol		800 U	4,500 U	4,700 U		
2-Chloronaphthalene		330 U	1,800 U	1,900 U		
2-Nitroaniline		800 U	4,500 U	4,700 U		
Dimethylphthalate		330 U	1,800 U	1,900 U		
Acenaphthylene		330 U	1,800 U	1,900 U		
2,6-Dinitrotoluene		330 U	1,800 U	1,900 U		
3-Nitroaniline		800 U	4,500 U	4,700 U		
Acenaphthene		330 U	1,800 U	1,900 U		
2,4-Dinitrophenol		800 U	4,500 U	4,700 U		
4-Nitrophenol		330 U	1,800 U	4,700 U		
Dibenzofuran		330 U	1,800 U	1,900 U		
2,4-Dinitrotoluene		330 U	1,800 U	1,900 U		
Diethylphthalate		330 U	1,800 U	1,900 U		
4-Chlorophenyl-phenylether		330 U	1,800 U	1,900 U		
Fluorene		330 U	1,800 U	1,900 U		
4-Nitroaniline		800 U	4,500 U	4,700 U		
4,6-Dinitro-2-methylphenol		800 U	4,500 U	4,700 U		
N-Nitrosodiphenylamine (1)		330 U	1,800 U	1,900 U		
4-Bromophenyl-phenylether		330 U	1,800 U	1,900 U		
Hexachlorobenzene		330 U	1,800 U	1,900 U		
Pentachlorophenol		800 U	4,500 U	4,700 U		
Phenanthrene		330 U	28 J	38 J		
Anthracene		330 U	1,800 U	1,900 U		
Carbazole		330 U	1,800 U	1,900 U		
Di-n-Butylphthalate		330 U	1,800 U	1,900 U		
Fluoranthene		330 U	61 J	56 J		
Pyrene		330 U	46 J	38 J		
Butylbenzylphthalate		330 U	1,800 U	1,900 U		
3,3'-Dichlorobenzidine		330 U	1,800 U	1,900 U		
Benzo(a)anthracene		330 U	22 J	19 J		
Chrysene		330 U	35 J	38 J		
Bis(2-Ethylhexyl)phthalate		330 U	230 J	188 J		
Di-n-octylphthalate		330 U	1,800 U	1,900 U		
Benzo(b)fluoranthene		330 U	61 J	56 J		
Benzo(k)fluoranthene		330 U	24 J	19 J		
Benzo(a)pyrene		330 U	40 J	38 J		
Indeno(1,2,3-cd)pyrene		330 U	33 J	38 J		
Dibenz(a,h)anthracene		330 U	1,800 U	1,900 U		
Benzo(g,h,i)perylene		330 U	68 J	75 J		

Soil TCL Semivolatile Organic Analyses - Method 95-2

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4641

Sample Delivery Group: F4641			QA			
	Method	Lab.	Validation			
	Blank	Reported	Reported		Qualifiers	Footnotes
Sample / Analyte	Conc.	Conc.	Conc.			
	(PPB)	(PPB)	Decision			
Sample 101DW11-SS-1 (Lab. #: 84252)						
Non-Target Semivolatile Organics						
C16H34 Alkane (18.93)	ND	440 J	400 J			
C17H36 Alkane (19.71)	ND	600 J	550 J			
Unknown Alkane (19.73)	ND	500 J	550 J			
C18H38 Alkane (20.46)	ND	450 J	400 J			
C19H40 Alkane (21.17)	ND	440 J	400 J			
Unknown (23.24)	ND	4,000 J	4,150 J			
Unknown (23.80)	ND	1,400 J	1,300 J			
Unknown (23.85)	ND	2,000 J	2,050 J			
Unknown (24.22)	ND	900 J	950 J			
Unknown (24.32)	ND	24,000 J	24,400 J			
Unknown (31.05)	ND	1,200 J	1,150 J			
Unknown (32.44)	ND	1,200 J	1,150 J			

Holding Times

All other samples were extracted and analyzed within the holding times required by the NYS DEC's ASP program.

Tunes

No problems were detected with any of the tunes.

Surrogate Compound Recoveries

All surrogate compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

The initial calibration standards referenced on FORM VI in this analytical report (10, 25, 40, 60, and 80ng) are not those required for the NYS DEC ASP program (20, 50, 80, 120 and 160ng). The standards referenced on the continuing calibration forms (25ng) are not those required by this program (50ng). The initial and continuing calibration forms should be changed to note the NYS DEC ASP requirements and the reason for the discrepancy noted in detail in the case narrative to the revised report.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample 101DW11-SS-1 (Lab. #: 84252) of this sample delivery group was used for the medium level matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Method Blanks

Low concentrations of several aldol non-target compounds were found in the method blanks. None of these were detected in the sample.

Field Blank

A field blank was not associated with the samples of this delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Slightly different concentrations were calculated for the semivolatile compounds during the data validation than were reported by the laboratory. The discrepancies are due to the number of significant figures reported by the laboratory in their raw data. They only used one significant figure in their raw data print out. These differences do not significantly affect the end use of the data. Unless otherwise noted, the concentration reported by the laboratory should be used for all final reporting.

No other problems were found with the reported results of any of the samples of this delivery group.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: September 16, 1998

Sample Delivery Group: H3141

Laboratory Reference Numbers:

101DW11-SS-1	84252
101DW11-SS-1MS	84252MS
101DW11-SS-1MSD	84252MSD

Soil samples were received for analyses of the ^{semi}volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

JAN 27 1999

For Hazardous Waste Section

DATA VALIDATION SUMMARY

The initial calibration standards referenced on FORM VI in this analytical report (10, 25, 40, 60, and 80ng) are not those required for the NYS DEC ASP program (20, 50, 80, 120 and 160ng). The standards referenced on the continuing calibration forms (25ng) are not those required by this program (50ng). The initial and continuing calibration forms should be changed to note the NYS DEC ASP requirements and the reason for the discrepancy noted in detail in the case narrative to the revised report.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
December 1, 1998

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XV0AMS9	Level: Low	
Tune File ID: K4595	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: K4598	Date: 09/24/98	Page: 197
Initial Calibration File ID: K4596	Date: 09/24/98	Page: 169
Associated Samples: VBLKKV267, 84711, 84712		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	28%	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	1,1,2,2-Tetrachloroethane
PPB		
50		

%D: (1.199 - 1.274) / 1.199 * 100 = -6.255213	%D: (0.574 - 0.559) / 0.574 * 100 = 2.61324

METHOD BLANK: VBLKKV267 (Page 235)

Compound	ppb	<CRDL
Methylene Chloride	21	10
Acetone	18	

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XV0AMS9

Level: Low

Tune File ID: K4595

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: K4598

Date: 09/24/98

Page: 197

Initial Calibration File ID: K4596

Date: 09/24/98

Page: 169

Associated Samples: VBLKKV267, 84711, 84712

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300

Surrogates:

Toluene-d8	<100	>0.01
Bromofluorobenzene *	28%	>0.20
1,2-Dichloroethane-d4	<100	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

1,1-Dichloroethene

1,1,2,2-Tetrachloroethane

PPB

50

%D: (1.199 - 1.274) / 1.199 * 100 = -6.255213

%D: (0.574 - 0.559) / 0.574 * 100 = 2.61324

METHOD BLANK: VBLKKV267 (Page 235)

Compound

Methylene Chloride

Acetone

ppb

2J

18

<CRDL

10

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS1	Level: Low	
Tune File ID: A5919	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: A5920	Date: 09/28/98	Page: 185
Initial Calibration File ID: A5577	Date: 09/10/98	Page: 137
Associated Samples: VBLKAV271, 84713, 84714, 86000, 86002, 86001		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = A_{is}/A_x*C_{is}/C_s)

COMPOUND:	1,1-Dichloroethane	Carbon Tetrachloride
PPB		
50	1798926/917908 * 1.000 = 1.96	1870304/3127526 * 1.000 = 0.598
	%D: (2.395 - 1.960) / 2.395 * 100 = 18.162839	%D: (0.692 - 0.598) / 0.692 * 100 = 13.583815

METHOD BLANK: VBLKAV271 (Page 242)

Compound	ppb	<CRDL
Methylene Chloride	2J	10
Acetone	17	

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XV0AMS9

Level: Low

Tune File ID: K4595

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: K4596

Date: 09/24/98

Page: 169

Associated Samples: VBLKKV267, 84711, 84712

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Chloroform	1,1,2,2-Tetrachloroethane
PPB		
10	195691/351234 * 5.000 = 2.786	138584/1073173 * 5.000 = 0.646
20	351697/334734 * 2.500 = 2.627	254066/988473 * 2.500 = 0.643
50	809327/336473 * 1.000 = 2.405	548723/982042 * 1.000 = 0.559
100	1660459/351627 * 0.500 = 2.361	1054460/1048318 * 0.500 = 0.503
200	3150015/361015 * 0.250 = 2.181	2112874/1014927 * 0.250 = 0.520

AV. RRF = 2.472

%RSD = 9.6%

AV. RRF = 0.574 %RSD = 11.7%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS **CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS9	Level: Low	
Tune File ID: K4522	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: K4523	Date: 09/18/98	Page: 196
Initial Calibration File ID: K4038	Date: 08/20/98	Page: 153
Associated Samples: VBLKKV260, 84253, 84254, VBLKKV261, 84252, 84255, 84256, 84257, 84258, 84256MS, 84256MSD, 6066BS		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane
PPB		
50	754196/1401226 * 1.000 = 0.538	626282/1042330 * 1.000 = 0.601
%D: (0.563 - 0.538) / 0.563 * 100 = 4.440497	%D : (0.669 - 0.601) / 0.669 * 100 = 10.164425	

METHOD BLANK: VBLKKV261 (Page 228)

Compound	ppb	<CRDL
Methylene Chloride	2J	10
Acetone	14	10 - NO

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS1

Level: Low

Tune File ID: A5574

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: A5577

Date: 09/10/98

Page: 137

Associated Samples: VBLKAV271, 84713, 84714, 86000, 86002, 86001

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

PPB

	Bromomethane	Benzene
10	150162/1379687 * 5.000 = 0.544	905271/4494271 * 5.000 = 1.007
20	322436/1350923 * 2.500 = 0.597	1511066/4462774 * 2.500 = 0.846
50	683688/1145147 * 1.000 = 0.597	2948915/3735279 * 1.000 = 0.789
100	1812227/1406182 * 0.500 = 0.644	7306338/4616085 * 0.500 = 0.791
200	3629853/1277966 * 0.250 = 0.710	13274912/4264567 * 0.250 = 0.778

AV. RRF = 0.618

%RSD = 10.1%

AV. RRF = 0.843

%RSD = 11.4%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low

Tune File ID: K4037

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: K4038

Date: 08/20/98

Page: 153

Associated Samples: VBLKKV260, 84253, 84254, VBLKKV261, 84252, 84255, 84256, 84257, 84258, 84256MS, 84256MSD, 6066BS

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Trichloroethene
PPB		
10	94172/379232 * 5.000 = 1.242	138699/1480362 * 5.000 = 0.468
20	209164/385406 * 2.500 = 1.357	288384/1516232 * 2.500 = 0.475
50	503569/405879 * 1.000 = 1.241	690013/1595244 * 1.000 = 0.433
100	1041498/398319 * 0.500 = 1.307	1432034/151384 * 0.500 = 0.473
200	1965599/399995 * 0.250 = 1.229	2595093/1532740 * 0.250 = 0.423

AV. RRF = 1.275

%RSD = 4.3%

AV. RRF = 0.454

%RSD = 5.5%

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS9

Level: Low

Tune File ID: K4498

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: K4499

Date: 09/17/98

Page: 189

Initial Calibration File ID: K4038

Date: 08/20/98

Page: 153

Associated Samples: VBLKKV260, 84253, 84254

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Chloroform

Ethylbenzene

PPB

50

1065206/412453 * 1.000 = 2.583

526054/1207717 * 1.000 = 0.436

%D: (2.616 - 2.583) / 2.616 * 100 = 1.261468

%D: (0.459 - 0.436) / 0.459 * 100 = 5.010893

METHOD BLANK: VBLKKV260 (Page 221)

Compound

ppb

<CRDL

Methylene Chloride

3J

10

Acetone

16

NO

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101-FSGP-2 50-54 (Lab. #: 86002) Received 9/25					
		% Moisture =	10		
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	17	23 B	23 B	J negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141
Laboratory Reference Numbers:

Received 9/16

101DW11-SS-1	84252
101DWA11 20-24	84253
101DWA12 8-12	84254
101DWA12 18-22	84255
101DWA12 30-34	84256
101DWA12 30-34MS	84256MS
101DWA12 30-34MSD	84256MSD
101DWA12 40-44	84257
101DWA12 50-54	84258

Received 9/18

101DWA-13 8-12	84711
101DWA-13 18-22	84712
101 DWA-13 30-34	84713
101DWA-13 40-44	84714

Received 9/25

101-FSGP-1 18-22	86000
101-FSGP-2 18-22	86001
101-FSGP-2 50-54	86002

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-FSGP-1 18-22 (Lab. #: 86000) Received 9/25					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	17	20 B	20 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-FSGP-2 18-22 (Lab. #: 86001) Received 9/25					
	% Moisture = 2				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	3 JB	2 JB	negate	1
Acetone	17	20 B	20 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-13 30-34 (Lab. #: 84713) Received 9/18					
		% Moisture = 4			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	17	29 B	29 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-13 40-44 (Lab. #: 84714) Received 9/18					
	% Moisture = 7				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	17	20 B	20 B	J negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA-13 8-12 (Lab. #: 84711) Received 9/18					
		% Moisture = 14			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U		
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	18	38 B	37 B	J negate	1
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	12 U	12 U		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	12 U	12 U		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	12 U	12 U		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	12 U	12 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-DWA-13 18-22 (Lab. #: 84712) Received 9/18					
	% Moisture = 2				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	0.8 JB	0.8 JB	negate	1
Acetone	18	9 B	9 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA12 40-44 (Lab. #: 84257) Received 9/16					
		% Moisture = 19			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U		
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	14	22 B	22 B	J negate	1
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	12 U	12 U		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	12 U	12 U		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	12 U	12 U		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	12 U	12 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA12 50-54 (Lab. #: 84258) Received 9/16					
		% Moisture = 19			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U		
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	14	22 B	21 B	J negate	1
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	12 U	12 U		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	12 U	12 U		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	12 U	12 U		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	12 U	12 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA12 18-22 (Lab. #: 84255) Received 9/16					
		% Moisture = 2			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	J negate	1
Acetone	14	14 B	14 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA12 30-34 (Lab. #: 84256) Received 9/16)					
	% Moisture = 4				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	14	15 B	16 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Hexanol. 2-Ethyl- (15.21)	ND	7 NJ	7 NJ		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA11 20-24 (Lab. #: 84253) Received 9/16					
		% Moisture = 13			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	11 U		
Bromomethane	10 U	12 U	11 U		
Vinyl Chloride	10 U	12 U	11 U		
Chloroethane	10 U	12 U	11 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	19 B	20 B	J negate	1
Carbon Disulfide	10 U	12 U	11 U		
1,1-Dichloroethene	10 U	12 U	11 U		
1,1-Dichloroethane	10 U	12 U	11 U		
1,2-Dichloroethene (total)	10 U	12 U	11 U		
Chloroform	10 U	12 U	11 U		
1,2-Dichloroethane	10 U	12 U	11 U		
2-Butanone	10 U	12 U	11 U		
1,1,1-Trichloroethane	10 U	12 U	11 U		
Carbon Tetrachloride	10 U	12 U	11 U		
Bromodichloromethane	10 U	12 U	11 U		
1,2-Dichloropropane	10 U	12 U	11 U		
cis-1,3-Dichloropropene	10 U	12 U	11 U		
Trichloroethene	10 U	12 U	11 U		
Dibromochloromethane	10 U	12 U	11 U		
1,1,2-Trichloroethane	10 U	12 U	11 U		
Benzene	10 U	12 U	11 U		
trans-1,3-Dichloropropene	10 U	12 U	11 U		
Bromoform	10 U	12 U	11 U		
4-Methyl-2-Pentanone	10 U	12 U	11 U		
2-Hexanone	10 U	12 U	11 U		
Tetrachloroethene	10 U	12 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	12 U	11 U		
Toluene	10 U	12 U	11 U		
Chlorobenzene	10 U	12 U	11 U		
Ethylbenzene	10 U	12 U	11 U		
Styrene	10 U	12 U	11 U		
Xylene (total)	10 U	12 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H3141

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA12 8-12 (Lab. #: 84254) Received 9/16					
	% Moisture = 3				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	15 B	15 B	J negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Method Blanks

Methylene chloride and acetone were detected in all method blanks. The concentration of methylene chloride in the three blanks ranged from 2J ug/l to 3J ug/l. The concentration of acetone in the three method blanks ranged from 14 ug/l to 18 ug/l. Both of these compounds were negated according to standard EPA data validation procedures when ever they were detected in an associated sample.

Trip Blanks

A trip blank was not associated with this sample delivery group.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Several non-target siloxane compounds were detected in some of the samples of this delivery group. These are generally laboratory artifacts cause by column bleed. Whenever these were detected in a sample they were flagged with the "J" qualifier and footnoted with #64 in the data validation summary table.

No other problems were found with the reported results of any of the samples of this delivery group.

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 16th through 25th, 1998
Sample Delivery Group: H314-1

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101D-11-SS-1 (Lab. #: 84252) Received 9/16					
		% Moisture = 11			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	14	12 B	11 B	J negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Soil samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
 - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

One sample, 101DW-11 SS1, was also noted on the chain of custody form as being analyzed for metals. This omission of this sample was not initially addressed in the case narrative. An amended case narrative was received in the laboratory's 1/6/99 resubmission.

There were several discrepancies as to whether the samples were analyzed by a heated purge in the various forms of this sample delivery group (heated purge on method blanks and calibration forms, but not on tune forms). The laboratory revised these forms in their 1/6/99 resubmission.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
January 11, 1999

Holding Times

All samples were analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

There were several discrepancies as to whether the samples were analyzed by a heated purge in the various forms of this sample delivery group (heated purge on method blanks and calibration forms, but not on tune forms). The laboratory revised these forms in their 1/6/99 resubmission.

No other problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with any of the three initial calibrations of this sample delivery group.

The percent difference of the bromofluorobenzene surrogate in the 9/24 continuing calibration was 28%.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

There were several discrepancies as to whether the samples were analyzed by a heated purge in the various forms of this sample delivery group (heated purge on method blanks and calibration forms, but not on tune forms). The laboratory revised these forms in their ? resubmission.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample 101DWA12 30-34 (Lab. #: 84256) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page In CLP	Non-Compliance
H3141	9/16/98	95	101DWA11-SS-1	84252	Soil	Yes - *	NA	NA	NA		
H3141	9/16/98	95	101DWA12 8-12	84253	Soil	Yes - *	NA	NA	NA		
H3141	9/16/98	95	101DWA12 8-12	84254	Soil	Yes - *	NA	NA	NA		
H3141	9/16/98	95	101DWA12 18-22	84255	Soil	Yes - *	NA	NA	NA		
H3141	9/16/98	95	101DWA12 30-34	84256	Soil	Yes - *	See Text	NA	NA		
H3141	9/16/98	95	101DWA12 30-34MS	84256MS	Soil	Yes - *	See Text	NA	NA		Calibration Notation
H3141	9/16/98	95	101DWA12 30-34MSD	84256MSD	Soil	Yes - *	See Text	NA	NA		Calibration Notation
H3141	9/16/98	95	101DWA12 40-44	84257	Soil	Yes - *	NA	NA	NA		Calibration Notation
H3141	9/16/98	95	101DWA12 50-54	84258	Soil	Yes - *	NA	NA	NA		
H3141	9/18/98	95	101DWA-13 8-12	84711	Soil	Yes - *	NA	NA	NA		
H3141	9/18/98	95	101DWA-13 18-22	84712	Soil	Yes - *	NA	NA	NA		
H3141	9/18/98	95	101 DWA-13 30-34	84713	Soil	Yes - *	NA	NA	NA		
H3141	9/18/98	95	101DWA-13 40-44	84714	Soil	Yes - *	NA	NA	NA		
H3141	9/25/98	95	101-FSGP-1 18-22	86000	Soil	Yes - *	NA	NA	NA		
H3141	9/25/98	95	101-FSGP-2 18-22	86001	Soil	Yes - *	NA	NA	NA		
H3141	9/25/98	95	101-FSGP-2 50-54	86002	Soil	Yes - *	NA	NA	NA		

* - With 1/6/99 resubmissions.

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 13 1999

For Hazardous Waste Section

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Volatile Organic Analyses - Method 95-1

Samples Received: September 16th through 25th, 1998

Sample Delivery Group: H3141

Laboratory Reference Numbers:

Received 9/16

101DW11-SS-1	84252
101DWA12 8-12	84253
101DWA12 8-12	84254
101DWA12 18-22	84255
101DWA12 30-34	84256
101DWA12 30-34MS	84256MS
101DWA12 30-34MSD	84256MSD
101DWA12 40-44	84257
101DWA12 50-54	84258

Received 9/18

101DWA-13 8-12	84711
101DWA-13 18-22	84712
101 DWA-13 30-34	84713
101DWA-13 40-44	84714

Received 9/25

101-FSGP-1 18-22	86000
101-FSGP-2 18-22	86001
101-FSGP-2 50-54	86002

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 13 1999

For Hazardous Waste Section

**VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS2

Level: Low

Tune File ID: B7955

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: B7956

Date: 09/14/98

Page: 79

Initial Calibration File ID: B7935

Date: 09/12/98

Page: 63

Associated Samples: VBLKBV257, FSMW-07B, FSMW-06A, FSMW-06AMS, FSMW-06AMSD

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100*	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Bromomethane

Toluene

PPB

50

679327/1217180 * 1.000 = 0.558

4691278/3234395 * 1.000 = 1.45

%D: (0.676 - 0.558) / 0.676 * 100 = 17.455621

%D: (1.467 - 1.450) / 1.467 * 100 = 1.158828

METHOD BLANK: VBLKBV257 (Page 96)

Compound

ppb

<CRDL

No compounds were detected in this method blank

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS2

Level: Low

Tune File ID: B8012

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: B8015

Date: 09/17/98

Page: 83

Initial Calibration File ID: B7935

Date: 09/12/98

Page: 63

Associated Samples: VBLKBV260, FSMW-06B, Trip Blank, 818BS

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	34%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: no

Footnote:

Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

1,1-Dichloroethane

Tetrachloroethene

PPB

50

2386744/959744 * 1.000 = 2.487

1160095/2488577 * 1.000 = 0.466

%D: (2.357 - 2.487) / 2.357 * 100 = -5.515486

%D: (0.572 - 0.466) / 0.572 * 100 = 18.531469

METHOD BLANK: VBLKBV260 (Page 101)

Compound

Methylene Chloride

Acetone

ppb

11

12

<CRDL

10

No

OVERALL ASSESSMENT AND COMMENTS: ok

**DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)**

Water Volatile Organic Analyses - Method 95-1

Samples Received: September 9, 1998

Sample Delivery Group: H1012

Laboratory Reference Numbers:

Trip Blank	82707
FSMW-07B	82704
FSMW-06A	82705
FSMW-06AMS	82705MS
FSMW-06AMSD	82705MSD
FSMW-06B	82706

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2

Level: Low

Tune File ID: B7933

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: B7935

Date: 09/12/98

Page: 63

Associated Samples: VBLKBV257, FSMW-07B, FSMW-06A, FSMW-06AMS, FSMW-06AMSD, VBLKBV260, FSMW-06B, Trip Blank, 818BS

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Tetrachloroethene
PPB		
10	288108/948384 * 5.000 = 1.519	357808/2520486 * 5.000 = 0.710
20	437233/894717 * 2.500 = 1.222	559333/2358620 * 2.500 = 0.593
50	1097218/979672 * 1.000 = 1.120	1382074/2493225 * 1.000 = 0.554
100	1926547/912653 * 0.500 = 1.055	2370156/2433734 * 0.500 = 0.487
200	3886684/875556 * 0.250 = 1.110	4660746/2265255 * 0.250 = 0.514

AV. RRF = 1.205

%RSD = 15.4 %

AV. RRF = 0.572

%RSD = 15.2%

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 9, 1998
Sample Delivery Group: H1012

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample FSMW-06A (Lab. #: 82705)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	13	13		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	3 J	3 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	0.1 J	0.1 J		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	1 J	1 J		
Non-Target Volatile Organics					
Unknown Siloxane (19368)	ND	6 J	6 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 9, 1998
Sample Delivery Group: H1012

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample FSMW-06B (Lab. #: 82706)					
TCL Volatile Organics	(Diluted 2X)				
Chloromethane	10 U	20 U	20 U	J qualify	15
Bromomethane	10 U	20 U	20 U		
Vinyl Chloride	10 U	20 U	20 U		
Chloroethane	10 U	20 U	20 U		
Methylene Chloride	1 J	1 JB	1 JB	negate	1
Acetone	12	12 JB	12 JB	negate	1
Carbon Disulfide	10 U	20 U	20 U		
1,1-Dichloroethene	10 U	20 U	20 U		
1,1-Dichloroethane	10 U	20 U	20 U		
1,2-Dichloroethene (total)	10 U	7 J	6 J		
Chloroform	10 U	20 U	20 U		
1,2-Dichloroethane	10 U	20 U	20 U		
2-Butanone	10 U	20 U	20 U		
1,1,1-Trichloroethane	10 U	3 J	2 J		
Carbon Tetrachloride	10 U	20 U	20 U		
Bromodichloromethane	10 U	20 U	20 U		
1,2-Dichloropropane	10 U	20 U	20 U		
cis-1,3-Dichloropropene	10 U	20 U	20 U		
Trichloroethene	10 U	9 J	10 J		
Dibromochloromethane	10 U	20 U	20 U		
1,1,2-Trichloroethane	10 U	20 U	20 U		
Benzene	10 U	20 U	20 U		
trans-1,3-Dichloropropene	10 U	20 U	20 U		
Bromoform	10 U	20 U	20 U		
4-Methyl-2-Pentanone	10 U	20 U	20 U		
2-Hexanone	10 U	20 U	20 U		
Tetrachloroethene	10 U	220	220		
1,1,2,2-Tetrachloroethane	10 U	20 U	20 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	20 U	20 U		
Ethylbenzene	10 U	20 U	20 U		
Styrene	10 U	20 U	20 U		
Xylene (total)	10 U	20 U	20 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 9, 1998
Sample Delivery Group: H1012

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Trip Blank (Lab. #: 82707)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	qualify
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	0.8 JB	0.8 JB	negate	1
Acetone	12	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1

Samples Received: September 9, 1998

Sample Delivery Group: H1012

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-07B (Lab. #: 82704)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon-Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	1 J	1 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.9 J	0.9 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	0.7 J	0.7 J		
Non-Target Volatile Organics					
Unknown Siloxane (19.69)	ND	7 J	7 J	qualify	67

Holding Times

All samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with either of the two initial calibrations of this sample delivery group.

The percent difference of bromomethane was above the 25% quality assurance limit in the second continuing calibration associated with this sample delivery group. The data for this compound was flagged with the "J" qualifier and footnoted with #15 in the data validation summary table in those samples which were affected by the calibration problem. The trip blank and sample FSMW-06B were the only two samples analyzed with this continuing calibration. This compound was not detected in either of these two samples.

No problems were detected in the second continuing calibration.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample FSMW-06A (Lab. #: 82705) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Methylene chloride (1J ug/l) and acetone (12Jug/l) were detected in the method blank associated with the analyses of the trip blank and sample FSMW-06B. Only methylene chloride was detected in the trip blank. Both methylene chloride or

acetone were detected in any of the sample FSMW06B. Both of these compounds were negated according to standard EPA data validation procedures.

Trip Blanks

Only a low concentration of methylene chloride (0.8JB ug/l) was detected in the trip blank. Methylene chloride was negated in this sample due to its presence in the method blank.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Non-target siloxanes were detected in two of the samples of this delivery group and they are likely due to a laboratory artifact caused to column bleed. They were flagged with the "J" qualifier and footnoted with #67 in the data validation summary table.

No other problems were found with the reported results of any of the samples of this delivery group.

LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

NOV 12 1998

For Hazardous Waste Section

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
H1012	9/9/98	95	Trip Blank	82707	Water	Yes	NA	NA	NA		
H1012	9/9/98	95	FSMW-07B	82704	Water	Yes	NA	NA	NA		
H1012	9/9/98	95	FSMW-06A	82705	Water	Yes	NA	NA	NA		
H1012	9/9/98	95	FSMW-06AMS	82705MS	Water	Yes	NA	NA	NA		
H1012	9/9/98	95	FSMW-06AMSD	82705MSD	Water	Yes	NA	NA	NA		
H1012	9/9/98	95	FSMW-06B	82706	Water	Yes	NA	NA	NA		

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Water Volatile Organic Analyses - Method 95-1

Samples Received: September 9, 1998

Sample Delivery Group: H1012

Laboratory Reference Numbers:

Trip Blank	82707
FSMW-07B	82704
FSMW-06A	82705
FSMW-06AMS	82705MS
FSMW-06AMSD	82705MSD
FSMW-06B	82706

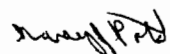
Water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

No problems were found with the analyses of these samples which would affect the end use of the data.



Nancy J. Potak
October 24, 1988

LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

OCT 29 1998

For Hazardous Waste Section

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9	Level: Low	
Tune File ID: K4498	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: K4499	Date: 09/17/98	Page: 176
Initial Calibration File ID: K4038	Date: 08/20/98	Page: 160

Associated Samples: VBLKKV260, 101DWA- 8-, 101DWA7 18, , 101DWA7 30, 101DWA7 40, 101DWA7 50, 101DWA3 8-, 101DWA-3 18, -3 30, 101DWA-3 50, 101DWA-8 8-, 101DWA-8 18, 101DWA-8 30, 101DWA-8 40,

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300

Surrogates:

Toluene-d8	<100	>0.01
Bromofluorobenzene *	<25.0	>0.20
1,2-Dichloroethane-d4	<100	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Chloroform	Ethylbenzene
PPB		
50	1065206/412453 * 1.000 = 2.583	526054/1207717 * 1.000 = 0.436
%D: (2.616 - 2.583) / 2.616 * 100 = 1.261468	%D: (0.459 - 0.436) / 0.459 * 100 = 5.010893	

METHOD BLANK: VBLKKV260 (Page 204)

Compound	ppb	<CRDL
Methylene Chloride	3J	10
Acetone	16	NO

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low

Tune File ID: K4522

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: K4523

Date: 09/18/98

Page: 180

Initial Calibration File ID: K4038

Date: 08/20/98

Page: 160

Associated Samples: VBLKKV261, 101DWA-3 40

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

1,1,1-Trichloroethane

1,1,2,2-Tetrachloroethane

PPB

50

754196/1401226 * 1.000 = 0.538

626282/1042330 * 1.000 = 0.601

%D: (0.563 - 0.538) / 0.563 * 100 = 4.440497

%D: (0.669 - 0.601) / 0.669 * 100 = 10.164425

METHOD BLANK: VBLKKV261 (Page 211)

Compound

Methylene Chloride

Acetone

ppb

2J

14

<CRDL

10

10 - NO

OVERALL ASSESSMENT AND COMMENTS: ok

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262
Laboratory Reference Numbers:

Received 9/4

FSGP-04 19-21	82144
89 DWA-19 31-33	82145
89 DWA-19 31-33MS	82145MS
89 DWA-19 31-33MSD	82145MSD

Received 9/10

101 DWA-7 8-12	82907
101 DWA-7 18-22	82908
101 DWA-7 30-34	82909
101 DWA-7 40-44	82910
101 DWA-7 50-54	82911

Received 9/11

101 DWA-3 8-12	83314
101 DWA-3 18-22	83315
101 DWA-3 30-34	83316
101 DWA-3 40-44	83317
101 DWA-3 50-53	83318
101 DWA-8 8-12	83319
101 DWA-8 18-22	83320
101 DWA-8 30-34	83321
101 DWA-8 40-44	83322

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low

Tune File ID: K4037

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: K4038

Date: 08/20/98

Page: 160

Associated Samples: VBLKKV260, 101DWA- 8-, 101DWA7 18, , 101DWA7 30, 101DWA7 40, 101DWA7 50,
101DWA3 8-, 101DWA-3 18, -3 30, 101DWA-3 50, 101DWA-8 8-, 101DWA-8 18, 101DWA-8 30, 101DWA-8 40,
VBLKKV261, 101DWA-3 40

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Trichloroethene
PPB		
10	94172/379232 * 5.000 = 1.242	138699/1480362 * 5.000 = 0.468
20	209164/385406 * 2.500 = 1.357	288384/1516232 * 2.500 = 0.475
50	503569/405879 * 1.000 = 1.241	690013/1595244 * 1.000 = 0.433
100	1041498/398319 * 0.500 = 1.307	1432034/151384 * 0.500 = 0.473
200	1965599/399995 * 0.250 = 1.229	2595093/1532740 * 0.250 = 0.423

AV. RRF = 1.275

%RSD = 4.3%

AV. RRF = 0.454

%RSD = 5.5%

OVERALL ASSESSMENT AND COMMENTS: ok

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262
Laboratory Reference Numbers:

Received 9/4

FSGP-04 19-21	82144
89 DWA-19 31-33	82145
89 DWA-19 31-33MS	82145MS
89 DWA-19 31-33MSD	82145MSD

Received 9/10

101 DWA-7 8-12	82907
101 DWA-7 18-22	82908
101 DWA-7 30-34	82909
101 DWA-7 40-44	82910
101 DWA-7 50-54	82911

Received 9/11

101 DWA-3 8-12	83314
101 DWA-3 18-22	83315
101 DWA-3 30-34	83316
101 DWA-3 40-44	83317
101 DWA-3 50-53	83318
101 DWA-8 8-12	83319
101 DWA-8 18-22	83320
101 DWA-8 30-34	83321
101 DWA-8 40-44	83322

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-8 40-44 (Lab. #: 83322) Received 9/11					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	17 B	18 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-8 30-34 (Lab. #: 83321) Received 9/11					
		% Moisture = 6			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	19 B	19 B	negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-8 40-44 (Lab. #: 83322) Received 9/11					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	17 B	18 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-8 8-12 (Lab. #: 83319) Received 9/33					
		% Moisture = 2			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	18 B	17 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Hydrocarbon (15.17)	ND	11 J	11 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA-8 18-22 (Lab. #: 83320) Received 9/11					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	16 B	15 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Hydrocarbon (15.17)	ND	10 J	10 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA-3 40-44 (Lab. #: 83317) Received 9/11					
		% Moisture = 6			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	2 JB	1 JB	negate	1
Acetone	14	13 B	13 B	negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
Unknown Hydrocarbon (15.21)	ND	7 J	6 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-3 50-53 (Lab. #: 83318) Received 9/11					
		% Moisture = 6			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	20 B	20 B	negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-3 18-22 (Lab. #: 83315) Received 9/11					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	20 B	21 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA-3 30-34 (Lab. #: 83316) Received 9/11					
		% Moisture = 4			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	16 B	17 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA-5 50-54 (Lab. #: 82911) Received 9/10					
		% Moisture = 7			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	20 B	19 B	negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-3 8-12 (Lab. #: 83314) Received 9/11					
	% Moisture = 3				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	17 B	16 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-7 30-34 (Lab. #: 82909) Received 9/10					
		% Moisture = 5			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	11 U		
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	10 U	2 JB	2 JB	negate	1
Acetone	10 U	18 B	18 B	negate	1
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	10 U	11 U		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	10 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	10 U	11 U		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	10 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA-7 40-44 (Lab. #: 82910) Received 9/10					
		% Moisture = 5			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	11 U		
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	3 J	2 J	2 J	negate	1
Acetone	16	16 B	17 B	negate	1
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	10 U	11 U		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	10 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	10 U	11 U		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	10 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DWA-7 8-12 (Lab. #: 82907) Received 9/10					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	17 B	18 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 101DWA-7 18-22 (Lab. #: 82908) Received 9/10					
		% Moisture = 5			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	11 U		
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	3 J	2 JB	2 JB	negate	1
Acetone	16	16 B	16 B	negate	1
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	10 U	11 U		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	10 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	10 U	11 U		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	10 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSGP-04 19-21 (Lab. #: 82144) Received 9/4					
	% Moisture = 4				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	3 JB	3 JB	negate	1
Acetone	12	15 B	15 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0262

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample 89DWA-19 31-33 (Lab. #: 82145) Received 9/4					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	3 JB	3 JB	negate	1
Acetone	12	11 B	11 B	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	2 J	2 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Holding Times

All samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with one the initial calibration of this sample delivery group.

The continuing calibration associated with the samples analyzed on 9/10 was not submitted. This was received in the laboratory's 10/? fax.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample FSGP-44 60-65 (Lab. #: 82143) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

It should be noted that the matrix spike was analyzed at a 50X dilution.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Methylene chloride and acetone were detected in all three method blanks. The concentration of methylene chloride in the three blanks ranged from 2J ug/l to 3J ug/l. The concentration of acetone in the three method blanks ranged from 12ug/l to 16 ug/l. Both of these compounds were negated according to standard EPA data validation procedures when ever they were detected in an associated sample.

Trip Blanks

Three trip blanks were included with the water samples which were received on the same date as the soil samples, but data for these trip blanks were not reported with the soil data. The data for the trip blanks were received in the laboratory's 11/9 fax.

Methylene chloride and acetone were detected in all three trip blanks. Since both methylene chloride and acetone were also detected in the method blanks associated

with the analyses of the trip blanks and the samples, these compounds were negated based upon their appearance in the method blank.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

No other problems were found with the reported results of any of the samples of this delivery group.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Volatile Organic Analyses - Method 95-1

Samples Received: September 4th through 11th, 1998

Sample Delivery Group: H0262

Laboratory Reference Numbers:

Received 9/4

FSGP-04 19-21	82144
89 DWA-19 31-33	82145
89 DWA-19 31-33MS	82145MS
89 DWA-19 31-33MSD	82145MSD

Received 9/10

101 DWA-7 8-12	82907
101 DWA-7 18-22	82908
101 DWA-7 30-34	82909
101 DWA-7 40-44	82910
101 DWA-7 50-54	82911

Received 9/11

101 DWA-3 8-12	83314
101 DWA-3 18-22	83315
101 DWA-3 30-34	83316
101 DWA-3 40-44	83317
101 DWA-3 50-53	83318
101 DWA-8 8-12	83319
101 DWA-8 18-22	83320
101 DWA-8 30-34	83321
101 DWA-8 40-44	83322

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

NOV 12 1998

For Hazardous Waste Section

Soil samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

The chain of custody notes that the samples were received over four days, but the cover page states that all samples were received on 9/4. A corrected cover letter was received in the laboratory's 11/5 resubmission.

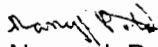
Several water samples were also noted on the chain of custody form, but were not analyzed. The laboratory revised their case narrative to account for this in their 11/5 resubmission.

There were several discrepancies as to whether the samples were analyzed by a heated purge in the various forms of this sample delivery group (heated purge on method blanks and calibration forms, but not on tune forms). The laboratory revised these forms in their 11/5 resubmission.

The continuing calibration associated with the samples analyzed on 9/10 was not submitted. This was received in the laboratory's 11/9 fax.

Three trip blanks were included with the water samples which were received on the same date as the soil samples, but data for these trip blanks were not reported with the soil data. The data for the trip blanks were received in the laboratory's 11/9 fax.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
November 9, 1998

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2
Tune File ID: B8033
Calibration File ID: B8034
Initial Calibration File ID: B7935
Associated Samples: VBLKBV261, Trip Blank, FSMW-9B, FSMW-05A, Trip Blank
Date: 09/18/98
Date: 09/12/98
Page: 229
Page: 205
Time Requirements Met: yes
Acceptable: yes
Level: Low

TCL COMPOUND LIST

Compound	%D	RRF	%D	RRF
Chloromethane	<100	<0.010	1,2-Dichloropropane	<100
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0
Acetone	<100	>0.010	Benzene *	<25.0
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0
1,1-Dichloroethane *	<25.0	>0.100	4-Methyl-2-Pentanone	<100
1,2-Dichloroethane (total)	<100	>0.010	2-Hexanone	<100
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0
2-Butanone	<100	>0.010	Toluene *	<25.0
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0
			Xylenes (total)	<25.0

All Compounds Average RRF > QC Limit: yes
All Compounds Average RRF > 0.01: yes
All Compounds %D < QC Limit: yes
Footnote:
Footnote:

CALCULATION VERIFICATION: (RRF = AIs/Ax * CIs/Cs)

COMPOUND: Carbon Tetrachloride
PPB 50
1721337/3476250 * 1.000 = 0.495
1237907/2682654 * 1.000 = 0.461
%D: (0.556 - 0.495) / 0.556 * 100 = 10.971223
%D: (0.572 - 0.461) / 0.572 * 100 = 19.405594

METHOD BLANK: VBLKBV261 (Page 262)

Compound
Methylene Chloride
Acetone
ppb 10
0.81
<CRDL
10
No

OVERALL ASSESSMENT AND COMMENTS: ok

UMMARY OF THE ANALYTICAL DATA VALIDATION **For Frost Street Sites (D002676-32)**

New York State Department of Environmental Conservation Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
H0262	9/4/98	95	Trip Blank		Water	See Text	NA	NA	NA		
H0262	9/4/98	95	FSGP-04 19-21	82144	Soil	Yes	NA	NA	NA		
H0262	9/4/98	95	89 DWA-19 31-33	82145	Soil	Yes	NA	NA	NA		
H0262	9/4/98	95	89 DWA-19 31-33MS	82145MS	Soil	Yes	NA	NA	NA		
H0262	9/4/98	95	89 DWA-19 31-33MSD	82145MSD	Soil	Yes	NA	NA	NA		
H0262	9/10/98	95	Trip Blank		Water	See Text	NA	NA	NA		
H0262	9/10/98	95	101 DWA-7 8-12	82907	Soil	Yes	NA	NA	NA		
H0262	9/10/98	95	101 DWA-7 18-22	82908	Soil	Yes	NA	NA	NA		
H0262	9/10/98	95	101 DWA-7 30-34	82909	Soil	Yes	NA	NA	NA		
H0262	9/10/98	95	101 DWA-7 40-44	82910	Soil	Yes	NA	NA	NA		
H0262	9/10/98	95	101 DWA-7 50-54	82911	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	Trip Blank		Water	See Text	NA	NA	NA		
H0262	9/11/98	95	101 DWA-3 8-12	83314	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-3 18-22	83315	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-3 30-34	83316	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-3 40-44	83317	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-3 50-53	83318	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-8 8-12	83319	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-8 18-22	83320	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-8 30-34	83321	Soil	Yes	NA	NA	NA		
H0262	9/11/98	95	101 DWA-8 40-44	83322	Soil	Yes	NA	NA	NA		

LAMBERT, MATUSKY &
 SKELLY ENGINEERS LLP
 NOV 12 1998
 For Hazardous Waste Section

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2

Level: Low

Tune File ID: B7955

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: B7956

Date: 09/14/98

Page: 221

Initial Calibration File ID: B7935

Date: 09/12/98

Page: 205

Associated Samples: VBLKBV257, Trip Blank, FSMW-08A, FSGP-44 60-65, FSGP-44 60-65MS, FSGP-44 60-65MSD, FSMW-09A, UN-4 EZ-EM, 8163BS

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote: -

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Bromomethane

Toluene

PPB

50

679327/1217180 * 1.000 = 0.558

4691278/3234395 * 1.000 = 1.45

%D: (0.676 - 0.558) / 0.676 * 100 = 17.455621

%D: (1.467 - 1.450) / 1.467 * 100 = 1.158828

METHOD BLANK: VBLKBV257 (Page 96)

Compound

ppb

<CRDL

No compounds were detected in this method blank

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B8012	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B8015	Date: 09/17/98	Page: 225
Initial Calibration File ID: B7935	Date: 09/12/98	Page: 205
Associated Samples: VBLKBV260, FSMW-10A, FSMW-10B, Trip Blank, NC-6, FSMW-07A, FSMW-05B,		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	34%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: no

Footnote:
 Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethane	Tetrachloroethene
PPB		
50	2386744/959744 * 1.000 = 2.487	1160095/2488577 * 1.000 = 0.466
%D: (2.357 - 2.487) / 2.357 * 100 = -5.515486	%D: (0.572 - 0.466) / 0.572 * 100 = 18.531469	

METHOD BLANK: VBLKBV260 (Page 101)

Compound	ppb	<CRDL
Methylene Chloride	11	10
Acetone	12	No

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2

Level: Low

Tune File ID: B7933

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: B7935

Date: 09/12/98

Page: 205

Associated Samples: VBLKBC255, FSMW-03B, Trip Blank, FSMW-03A, FSMW-08B, VBLKBV257, Trip Blank, FSMW-08A, FSGP-44 60-65, FSGP-44 60-65MS, FSGP-44 60-65MSD, FSMW-09A, UN-4 EZ-EM, 8163BS, VBLKBV260, FSMW-10A, FSMW-10B, Trip Blank, NC-6, FSMW-07A, FSMW-05B, VBLKBV261, Trip Blank, FSMW-9B, FSMW-05A, Trip Blank

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Tetrachloroethene
PPB		
10	288108/948384 * 5.000 = 1.519	357808/2520486 * 5.000 = 0.710
20	437233/894717 * 2.500 = 1.222	559333/2358620 * 2.500 = 0.593
50	1097218/979672 * 1.000 = 1.120	1382074/2493225 * 1.000 = 0.554
100	1926547/912653 * 0.500 = 1.055	2370156/2433734 * 0.500 = 0.487
200	3886684/875556 * 0.250 = 1.110	4660746/2265255 * 0.250 = 0.514

AV. RRF = 1.205

%RSD = 15.4 %

AV. RRF = 0.572

%RSD = 15.2%

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY**

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B7933	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B7935	Date: 09/12/98	Page:
Initial Calibration File ID: B7935	Date: 09/12/98	Page: 205
Associated Samples: VBLKBC255, FSMW-03B, Trip Blank, FSMW-03A, FSMW-08B		

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300

Surrogates:

Toluene-d8	<100	>0.01
Bromofluorobenzene *	<25.0	>0.20
1,2-Dichloroethane-d4	<100	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

PPB

50

%D: (

%D: (

METHOD BLANK: VBLKBC255 (Page 245)

Compound

ppb

<CRDL

No compounds were detected in this method blank

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-05B (Lab. #: 83326) Received 9/11					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U	negate	1,5
Acetone	12	6 JB	6 JB		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10	10		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	4 J	4 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.7 J	0.7 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	0.5 J	0.5 J		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (17.82)	ND	7 J	7 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample FSMW-05A (Lab. #: 83863) Received 9/11					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	10 U	10 U		
Acetone	10	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	22	22		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	3 J	3 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-9B (Lab. #: 82914) Received 9/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	10 U	10 U		
Acetone	10	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	2 J	2 J		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	6 J	6 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	100	100		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.5 J	0.5 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (17.82)	ND	6 J	6 J	qualify	67
Unknown Siloxane (19.85)	ND	8 J	8 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Trip Blank (Lab. #: 83323) Received 9/11					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J qualify	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	2 JB	2 JB	negate	1
Acetone	12	7 JB	7 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample FSMW-10A (Lab. #: 82912) Received 9/10					
TCL Volatile Organics	(Diluted 10X)				
Chloromethane	10 U	100 U	100 U	J	15
Bromomethane	10 U	100 U	100 U		
Vinyl Chloride	10 U	100 U	100 U		
Chloroethane	10 U	100 U	100 U		
Methylene Chloride	1 J	10 JB	10 JB	negate	1,5
Acetone	12	83 JB	80 JB	negate	1,5
Carbon Disulfide	10 U	100 U	100 U		
1,1-Dichloroethene	10 U	100 U	100 U		
1,1-Dichloroethane	10 U	100 U	100 U		
1,2-Dichloroethene (total)	10 U	100 U	100 U		
Chloroform	10 U	100 U	100 U		
1,2-Dichloroethane	10 U	100 U	100 U		
2-Butanone	10 U	100 U	100 U		
1,1,1-Trichloroethane	10 U	14 J	10 J		
Carbon Tetrachloride	10 U	100 U	100 U		
Bromodichloromethane	10 U	100 U	100 U		
1,2-Dichloropropane	10 U	100 U	100 U		
cis-1,3-Dichloropropene	10 U	100 U	100 U		
Trichloroethene	10 U	17 J	20 J		
Dibromochloromethane	10 U	100 U	100 U		
1,1,2-Trichloroethane	10 U	100 U	100 U		
Benzene	10 U	100 U	100 U		
trans-1,3-Dichloropropene	10 U	100 U	100 U		
Bromoform	10 U	100 U	100 U		
4-Methyl-2-Pentanone	10 U	100 U	100 U		
2-Hexanone	10 U	100 U	100 U		
Tetrachloroethene	10 U	1,100 U	1,100 U		
1,1,2,2-Tetrachloroethane	10 U	100 U	100 U		
Toluene	10 U	100 U	100 U		
Chlorobenzene	10 U	100 U	100 U		
Ethylbenzene	10 U	100 U	100 U		
Styrene	10 U	100 U	100 U		
Xylene (total)	10 U	100 U	100 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-10B (Lab. #: 82913) Received 9/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J qualify	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	12	6 JB	6 JB	negate	1,5
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	0.7 J	0.7 J		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	2 J	2 J		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	4 J	4 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.8 J	0.8 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	58	58		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	9 J	9 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	0.7 J	0.7 J		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	4 J	4 J		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
	(PPB)	(PPB)	Conc. Decision		
Sample UN-4 EZ-EM (Lab. #: 92606) Received 9/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	0.7 J	0.7 J		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	24	24		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	47	47		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	43	43		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	100	100		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 82915) Received 9/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	1 JB	1 JB	negate	1
Acetone	10	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Trip Blank (Lab. #: 82607) Received 9/5					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	1 J	1 J		
Acetone	10 U	10	10		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-09A (Lab. #: 82605) Received 9/5					
TCL Volatile Organics	(Diluted 500X)				
Chloromethane	10 U	5,000 U	5,000 U		
Bromomethane	10 U	5,000 U	5,000 U		
Vinyl Chloride	10 U	5,000 U	5,000 U		
Chloroethane	10 U	5,000 U	5,000 U		
Methylene Chloride	10 U	490 J	500 J	qualify	7
Acetone	10 U	5,000 U	5,000 U		
Carbon Disulfide	10 U	5,000 U	5,000 U		
1,1-Dichloroethene	10 U	5,000 U	5,000 U		
1,1-Dichloroethane	10 U	5,000 U	5,000 U		
1,2-Dichloroethene (total)	10 U	330 J	350 J		
Chloroform	10 U	5,000 U	5,000 U		
1,2-Dichloroethane	10 U	5,000 U	5,000 U		
2-Butanone	10 U	5,000 U	5,000 U		
1,1,1-Trichloroethane	10 U	5,000 U	5,000 U		
Carbon Tetrachloride	10 U	5,000 U	5,000 U		
Bromodichloromethane	10 U	5,000 U	5,000 U		
1,2-Dichloropropane	10 U	5,000 U	5,000 U		
cis-1,3-Dichloropropene	10 U	5,000 U	5,000 U		
Trichloroethene	10 U	1,400 J	1,500 J		
Dibromochloromethane	10 U	5,000 U	5,000 U		
1,1,2-Trichloroethane	10 U	5,000 U	5,000 U		
Benzene	10 U	5,000 U	5,000 U		
trans-1,3-Dichloropropene	10 U	5,000 U	5,000 U		
Bromoform	10 U	5,000 U	5,000 U		
4-Methyl-2-Pentanone	10 U	5,000 U	5,000 U		
2-Hexanone	10 U	5,000 U	5,000 U		
Tetrachloroethene	10 U	26,000	26,000		
1,1,2,2-Tetrachloroethane	10 U	5,000 U	5,000 U		
Toluene	10 U	5,000 U	5,000 U		
Chlorobenzene	10 U	5,000 U	5,000 U		
Ethylbenzene	10 U	5,000 U	5,000 U		
Styrene	10 U	5,000 U	5,000 U		
Xylene (total)	10 U	5,000 U	5,000 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-03A (Lab. #: 82148) Received 9/4					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	0.6 J	0.6 J		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	5 J	5 J		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	3 J	3 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	0.9 J	0.9 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	75	75		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	4 J	4 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	0.6 J	0.6 J		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-03B (Lab. #: 82149) Received 9/4					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	2 J	2 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample FSMW-08A (Lab. #: 82146) Received 9/4					
TCL Volatile Organics	(Diluted 500X)				
Chloromethane	10 U	5,000 U	5,000 U		
Bromomethane	10 U	5,000 U	5,000 U		
Vinyl Chloride	10 U	5,000 U	5,000 U		
Chloroethane	10 U	5,000 U	5,000 U		
Methylene Chloride	10 U	520 J	500 J	qualify	7
Acetone	10 U	5,000 U	5,000 U		
Carbon Disulfide	10 U	5,000 U	5,000 U		
1,1-Dichloroethene	10 U	5,000 U	5,000 U		
1,1-Dichloroethane	10 U	5,000 U	5,000 U		
1,2-Dichloroethene (total)	10 U	5,000 U	5,000 U		
Chloroform	10 U	5,000 U	5,000 U		
1,2-Dichloroethane	10 U	5,000 U	5,000 U		
2-Butanone	10 U	5,000 U	5,000 U		
1,1,1-Trichloroethane	10 U	5,000 U	5,000 U		
Carbon Tetrachloride	10 U	5,000 U	5,000 U		
Bromodichloromethane	10 U	5,000 U	5,000 U		
1,2-Dichloropropane	10 U	5,000 U	5,000 U		
cis-1,3-Dichloropropene	10 U	5,000 U	5,000 U		
Trichloroethene	10 U	310 J	300 J		
Dibromochloromethane	10 U	5,000 U	5,000 U		
1,1,2-Trichloroethane	10 U	5,000 U	5,000 U		
Benzene	10 U	5,000 U	5,000 U		
trans-1,3-Dichloropropene	10 U	5,000 U	5,000 U		
Bromoform	10 U	5,000 U	5,000 U		
4-Methyl-2-Pentanone	10 U	5,000 U	5,000 U		
2-Hexanone	10 U	5,000 U	5,000 U		
Tetrachloroethene	10 U	44,000	44,500		
1,1,2,2-Tetrachloroethane	10 U	5,000 U	5,000 U		
Toluene	10 U	5,000 U	5,000 U		
Chlorobenzene	10 U	5,000 U	5,000 U		
Ethylbenzene	10 U	5,000 U	5,000 U		
Styrene	10 U	5,000 U	5,000 U		
Xylene (total)	10 U	5,000 U	5,000 U		
Non-Target Volatile Organics					
Unknown Siloxane (19.70)	ND	3,000 J	3,000 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-08B (Lab. #: 82147) Received 9/4					
TCL Volatile Organics	(Diluted 2X)				
Chloromethane	10 U	20 U	20 U		
Bromomethane	10 U	20 U	20 U		
Vinyl Chloride	10 U	20 U	20 U		
Chloroethane	10 U	20 U	20 U		
Methylene Chloride	10 U	1 J	1 J	negate	5
Acetone	10 U	15 J	14 J		
Carbon Disulfide	10 U	20 U	20 U		
1,1-Dichloroethene	10 U	20 U	20 U		
1,1-Dichloroethane	10 U	20 U	20 U		
1,2-Dichloroethene (total)	10 U	8 J	8 J		
Chloroform	10 U	1 J	1 J		
1,2-Dichloroethane	10 U	20 U	20 U		
2-Butanone	10 U	20 U	20 U		
1,1,1-Trichloroethane	10 U	20 U	20 U		
Carbon Tetrachloride	10 U	20 U	20 U		
Bromodichloromethane	10 U	20 U	20 U		
1,2-Dichloropropane	10 U	20 U	20 U		
cis-1,3-Dichloropropene	10 U	20 U	20 U		
Trichloroethene	10 U	18 J	18 J		
Dibromochloromethane	10 U	20 U	20 U		
1,1,2-Trichloroethane	10 U	20 U	20 U		
Benzene	10 U	20 U	20 U		
trans-1,3-Dichloropropene	10 U	20 U	20 U		
Bromoform	10 U	20 U	20 U		
4-Methyl-2-Pentanone	10 U	20 U	20 U		
2-Hexanone	10 U	20 U	20 U		
Tetrachloroethene	10 U	390	380		
1,1,2,2-Tetrachloroethane	10 U	20 U	20 U		
Toluene	10 U	20 U	20 U		
Chlorobenzene	10 U	20 U	20 U		
Ethylbenzene	10 U	20 U	20 U		
Styrene	10 U	20 U	20 U		
Xylene (total)	10 U	20 U	20 U		
Non-Target Volatile Organics					
Unknown Siloxane (19.78)	ND	15 J	14 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 82150) Received 9/4					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	1 J	1 J		
Acetone	10 U	9 J	9 J		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: H0261

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample FSGP-44 60-65 (Lab. #: 82143) Received 9/4					
TCL Volatile Organics	(Diluted 50X)				
Chloromethane	10 U	500 U	500 U		
Bromomethane	10 U	500 U	500 U		
Vinyl Chloride	10 U	500 U	500 U		
Chloroethane	10 U	500 U	500 U		
Methylene Chloride	10 U	52 J	50 J	qualify	7
Acetone	10 U	500 U	500 U		
Carbon Disulfide	10 U	500 U	500 U		
1,1-Dichloroethene	10 U	500 U	500 U		
1,1-Dichloroethane	10 U	500 U	500 U		
1,2-Dichloroethene (total)	10 U	500 U	500 U		
Chloroform	10 U	500 U	500 U		
1,2-Dichloroethane	10 U	500 U	500 U		
2-Butanone	10 U	500 U	500 U		
1,1,1-Trichloroethane	10 U	500 U	500 U		
Carbon Tetrachloride	10 U	500 U	500 U		
Bromodichloromethane	10 U	500 U	500 U		
1,2-Dichloropropane	10 U	500 U	500 U		
cis-1,3-Dichloropropene	10 U	500 U	500 U		
Trichloroethene	10 U	41 J	40 J		
Dibromochloromethane	10 U	500 U	500 U		
1,1,2-Trichloroethane	10 U	500 U	500 U		
Benzene	10 U	500 U	500 U		
trans-1,3-Dichloropropene	10 U	500 U	500 U		
Bromoform	10 U	500 U	500 U		
4-Methyl-2-Pentanone	10 U	500 U	500 U		
2-Hexanone	10 U	500 U	500 U		
Tetrachloroethene	10 U	3,200	3,200		
1,1,2,2-Tetrachloroethane	10 U	500 U	500 U		
Toluene	10 U	500 U	500 U		
Chlorobenzene	10 U	500 U	500 U		
Ethylbenzene	10 U	500 U	500 U		
Styrene	10 U	500 U	500 U		
Xylene (total)	10 U	500 U	500 U		
Non-Target Volatile Organics					
None Detected					

Holding Times

All samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with one the initial calibration of this sample delivery group.

The continuing calibration associated with the samples analyzed on 9/12 was not submitted. This was received in the laboratory's 11/5 resubmission.

The percent difference of bromomethane was above the 25% quality assurance limit in the continuing calibration B8015 analyzed on 9/17. The data for this compound was flagged with the "J" qualifier and footnoted with #15 in the data validation summary table in those samples which were affected by the calibration problem. This compound was not detected in any of these samples.

No problems were detected in any of the other continuing calibrations.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample FSGP-44 60-65 (Lab. #: 82143) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

It should be noted that the matrix spike was analyzed at a 50X dilution.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Methylene chloride and acetone were detected in method blank VBLKBV260 (1J ug/l and 12 ug/l) analyzed on 9/17 and in method blank VBLKBV261 (0.8J ug/l and 10 ug/l). Both of these compounds were negated according to standard EPA data validation procedures when ever they were detected in an associated sample.

Trip Blanks

Methylene chloride (1J ug/l) and acetone (9J ug/l) were detected in the trip blank received on 9/4. These two compounds were also detected in the trip blank received on 9/5 (1J ug/l and 10 ug/l). Neither acetone nor methylene chloride were detected in any of the method blanks associated with the analyses of these two trip blanks. Acetone and methylene chloride were negated or qualified in the samples which were received on these two dates on the basis of the standard EPA data validation guidelines.

Methylene chloride and acetone were also detected in the trip blank received on 9/10 (1JB ug/l and 6JB ug/l), 9/11 (2JB ug/l and 7JB ug/l), and 9/14 (1JB ug/l and 9JB ug/l). Since both methylene chloride and acetone were also detected in the method blank associated with the analyses of the trip blanks and the samples which were collected on these dates, these compounds were negated based upon their appearance in the method blank.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Non-target siloxanes were detected in several of the samples of this delivery group and they are likely due to a laboratory artifact caused to column bleed. They were flagged with the "J" qualifier and footnoted with #67 in the data validation summary table.

No other problems were found with the reported results of any of the samples of this delivery group.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

Water Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 14th, 1998
Sample Delivery Group: H0261
Laboratory Reference Numbers:

Received 9/4	
Trip Blank	82150
FSGP-44 60-65	82143
FSGP-44 60-65MS	82143MS
FSGP-44 60-65MSD	82143MSD
FSMW-08A	81246
FSMW-08B	82147
FSMW-03A	82148
FSMW-03B	82149
Received 9/5	
Trip Blank	82607
FSMW-09A	82605
UN-4 EZ-EM	82606
Received 9/10	
Trip Blank	82915
FSMW-10A	82912
FSMW-10B	82913
FSMW-9B	82914
Received 9/11	
Trip Blank	83323
NC-6	83324
FSMW-07A	83325
FSMW-05B	83326
Received 9/14	
Trip Blank	83864
FSMW-05A	83863

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SKELLY ENGINEERS LLP**

NOV 12 1998

For Hazardous Waste Section

Water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

The chain of custody notes that the samples were received over four days, but the cover page states that all samples were received on 9/4. A corrected cover letter was received in the laboratory's 11/5 resubmission.

Several soil samples were also noted on the chain of custody form, but were not analyzed. The laboratory revised their case narrative to account for this in their 11/5 resubmission.

The continuing calibration associated with the samples analyzed on 9/12 was not submitted. This was received in the laboratory's 11/5 resubmission.

No other problems were found with the analyses of these samples which would affect the end use of the data.



Nancy J. Potak
November 9, 1998

VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS3
Tune File ID: C0434
Calibration File ID: C1524
Initial Calibration File ID: C0435
Associated Samples: - VBLKCV253, Trip Blank, FSGP-03 60-6, 101DWA-8 79-, FSMW-02AMSD, FSM-04A, LRF-1 101 FR, FSMW-04B, FSMW-01B, FSM-01A, Trip Blank, 89DWA-SMHE-6, FSMW-02A, FSMW-02AMS, 8125BS

Level: Low
Acceptable: yes
Time Requirements Met: yes
Date: 09/10/98
Page: 202
Date: 07/11/98
Page: 182

Compound	%D	RRF	1,2-Dichloropropane	cis-1,3-Dichloropropene *	Trichloroethene *	Dibromochloromethane *	1,1,2-Trichloroethane *	Benzene *	trans-1,3-Dichloropropene *	Bromoform *	4-Methyl-2-Pentanone	2-Hexanone	Tetrachloroethene *	1,1,2,2-Tetrachloroethane *	Toluene *	Chlorobenzene *	Ethylbenzene *	Styrene *	Xylenes (total)
Chloromethane	<100	>0.010																	
Bromomethane *	<25.0	>0.100																	
Vinyl Chloride *	<25.0	>0.100																	
Chloroethane	<100	>0.010																	
Methylene Chloride	<100	>0.010																	
Acetone	<100	>0.010																	
Carbon Disulfide	<100	>0.010																	
1,1-Dichloroethene *	<25.0	>0.100																	
1,1,1-Trichloroethane *	<25.0	>0.100																	
2-Butanone	<100	>0.010																	
1,2-Dichloroethane *	<25.0	>0.100																	
Chloroform *	<25.0	>0.200																	
1,2-Dichloroethene (total)	<100	>0.010																	
1,1-Dichloroethane *	<25.0	>0.200																	
1,1,1-Trichloroethane *	<25.0	>0.100																	
Carbon Tetrachloride *	<25.0	>0.100																	
Bromodichloromethane *	<25.0	>0.200																	
Surrogates:																			
Toluene-d8	<100	>0.01																	
Bromofluorobenzene *	<25.0	>0.20																	
1,2-Dichloroethane-d4	<100	>0.01																	

All Compounds Average RRF > QC Limit:
All Compounds Average RRF > 0.01:
All Compounds %D < QC Limit:
Footnote:
Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax * Cis/Cs)

COMPOUND:

Trichloroethene

Tetrachloroethene

PPB
50

1862664/3719121 * 1.000 = 0.501

1579905/2893349 * 1.000 = 0.546

%D: (0.457 - 0.501) / 0.457 * 100 = -9.628009
%D: (0.549 - 0.546) / 0.549 * 100 = 0.546448

METHOD BLANK: VBLKCV253 (Page 225)

Compound

Methylene Chloride

ppb
11

<CRDL
10

OVERALL ASSESSMENT AND COMMENTS: ok

SUMMARY OF THE ANALYTICAL DATA VALIDATION For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page In CLP	Non-Compliance
H0261	9/4/98	95	Trip Blank	82150	Water	Yes	NA	NA	NA		
H0261	9/4/98	95	FSGP-44 60-65	82143	Water	Yes	NA	NA	NA		
H0261	9/4/98	95	FSGP-44 60-65MS	82143MS	Water	Yes	NA	NA	NA		
H0261	9/4/98	95	FSGP-44 60-65MSD	82143MSD	Water	Yes	NA	NA	NA		
H0261	9/4/98	95	FSMW-08A	81246	Water	Yes	NA	NA	NA		
H0261	9/4/98	95	FSMW-08B	82147	Water	Yes	NA	NA	NA		
H0261	9/4/98	95	FSMW-03A	82148	Water	Yes	NA	NA	NA		
H0261	9/4/98	95	FSMW-03B	82149	Water	Yes	NA	NA	NA		
H0261	9/5/98	95	Trip Blank	82607	Water	Yes	NA	NA	NA		
H0261	9/5/98	95	FSMW-09A	82605	Water	Yes	NA	NA	NA		
H0261	9/5/98	95	UN-4 EZ-EM	82606	Water	Yes	NA	NA	NA		
H0261	9/10/98	95	Trip Blank	82915	Water	Yes	NA	NA	NA		
H0261	9/10/98	95	FSMW-10A	82912	Water	Yes	NA	NA	NA		
H0261	9/10/98	95	FSMW-10B	82913	Water	Yes	NA	NA	NA		
H0261	9/10/98	95	FSMW-9B	82914	Water	Yes	NA	NA	NA		
H0261	9/11/98	95	Trip Blank	83323	Water	Yes	NA	NA	NA		
H0261	9/11/98	95	NC-6	83324	Water	Yes	NA	NA	NA		
H0261	9/11/98	95	FSMW-07A	83325	Water	Yes	NA	NA	NA		
H0261	9/11/98	95	FSMW-05B	83326	Water	Yes	NA	NA	NA		
H0261	9/14/98	95	Trip Blank	83864	Water	Yes	NA	NA	NA		
H0261	9/14/98	95	FSMW-05A	83863	Water	Yes	NA	NA	NA		

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NOV 12 1998
For Hazardous Waste Section

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Water Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771
Laboratory Reference Numbers:

Received 9/1

Trip Blank	81102
MW-5 Anson	81098
LRF-1 101 Frost	81099
MW-1 EZ-EM	81100

Received 9/2

Trip Blank	81441
FSMW-02A	81437
FSMW-02AMS	81437MS
FSMW-02AMSD	81437MSD
FSMW-02B	81438
FSMW-02C	81439
FSMW-04A	81440
FSGP-03 60-65	81442
101DWA-8 79-80	81443

Received 9/3

Trip Blank	81700
FSMW-04B	81697
FSMW-01B	81698
FSMW-01A	81699
98DWA-SHMW 60-65	81702

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2

Level: low - water

Tune File ID: B7224

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: B7225

Date: 08/03/98

Page: 166

Associated Samples: VBLKBV247A, MW-5 ANSON, MW-1 EZ-EM, Trip Blank, FSMW-02B, FSMW-02C

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Toluene	Chloroform
PPB		
10	985128/3152857 * 5.000 = 1.562	669087/1096437 * 5.000 = 3.051
20	1924398/2861934 * 2.500 = 1.681	1276188/1006326 * 2.500 = 3.170
50	4651480/3063673 * 1.000 = 1.518	3132645/1137576 * 1.000 = 2.754
100	9491213/3445103 * 0.500 = 1.377	6600809/1282634 * 0.500 = 2.573
200	20746361/3402080 * 0.250 = 1.524	14459832/1279735 * 0.250 = 2.825
AV. RRF = 1.532	%RSD = 7.1%	AV. RRF = 2.875 %RSD = 8.3%

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample FSMW-01A (Lab. #: 81699) Received 9/3					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	4 J	4 J		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	0.9 J	0.9 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	4 J	4 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample 89DWA-SHMW 60-65 (Lab. #: 81702) Received 9/3					
TCL Volatile Organics	(Diluted 100X)				
Chloromethane	10 U	1,000 U	1,000 U		
Bromomethane	10 U	1,000 U	1,000 U		
Vinyl Chloride	10 U	1,000 U	1,000 U		
Chloroethane	10 U	1,000 U	1,000 U		
Methylene Chloride	1 J	1,000 U	1,000 U		
Acetone	10 U	1,000 U	1,000 U		
Carbon Disulfide	10 U	1,000 U	1,000 U		
1,1-Dichloroethene	10 U	1,000 U	1,000 U		
1,1-Dichloroethane	10 U	1,000 U	1,000 U		
1,2-Dichloroethene (total)	10 U	1,000 U	1,000 U		
Chloroform	10 U	1,000 U	1,000 U		
1,2-Dichloroethane	10 U	1,000 U	1,000 U		
2-Butanone	10 U	1,000 U	1,000 U		
1,1,1-Trichloroethane	10 U	1,000 U	1,000 U		
Carbon Tetrachloride	10 U	1,000 U	1,000 U		
Bromodichloromethane	10 U	1,000 U	1,000 U		
1,2-Dichloropropane	10 U	1,000 U	1,000 U		
cis-1,3-Dichloropropene	10 U	1,000 U	1,000 U		
Trichloroethene	10 U	130 J	100 J		
Dibromochloromethane	10 U	1,000 U	1,000 U		
1,1,2-Trichloroethane	10 U	1,000 U	1,000 U		
Benzene	10 U	1,000 U	1,000 U		
trans-1,3-Dichloropropene	10 U	1,000 U	1,000 U		
Bromoform	10 U	1,000 U	1,000 U		
4-Methyl-2-Pentanone	10 U	1,000 U	1,000 U		
2-Hexanone	10 U	1,000 U	1,000 U		
Tetrachloroethene	10 U	5,600	5,600		
1,1,2,2-Tetrachloroethane	10 U	1,000 U	1,000 U		
Toluene	10 U	1,000 U	1,000 U		
Chlorobenzene	10 U	1,000 U	1,000 U		
Ethylbenzene	10 U	1,000 U	1,000 U		
Styrene	10 U	1,000 U	1,000 U		
Xylene (total)	10 U	1,000 U	1,000 U		
Non-Target Volatile Organics					
Unknown Siloxane (18.81)	ND	680 J	700 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
	(PPB)	(PPB)	Conc.		
			Decision		
Sample FSMW-04B (Lab. #: 81697) Received 9/3					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	2 J	2 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	26	26		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (18.81)	ND	5 J	5 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample FSMW-01B (Lab. #: 81698) Received 9/3					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	40 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample FSGP-03 60-65 (Lab. #: 81442) Received 9/02					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	2 J	2 J		
1,1-Dichloroethane	10 U	2 J	2 J		
1,2-Dichloroethene (total)	10 U	3 J	3 J		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	75	75		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	13	13		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	40	40		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
2,2,3,3-Tetrachlorobutane (16.30)	ND	8 NJ	8 NJ		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 81700) Received 9/3					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	2 JB	2 JB	negate	1
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW--02B (Lab. #: 81438) Received 9/2					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	qualify
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		15
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	4 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	1 J	1 J		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	50	50		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-04A (Lab. #: 81440) Received 9/2					
TCL Volatile Organics	(Diluted 1,000X)				
Chloromethane	10 U	10,000 U	10,000 U		
Bromomethane	10 U	10,000 U	10,000 U		
Vinyl Chloride	10 U	10,000 U	10,000 U		
Chloroethane	10 U	10,000 U	10,000 U		
Methylene Chloride	1 J	1,600 JB	2,000 JB	negate	1,5
Acetone	10 U	10,000 U	10,000 U		
Carbon Disulfide	10 U	10,000 U	10,000 U		
1,1-Dichloroethene	10 U	10,000 U	10,000 U		
1,1-Dichloroethane	10 U	10,000 U	10,000 U		
1,2-Dichloroethene (total)	10 U	660 JB	600 JB		
Chloroform	10 U	10,000 U	10,000 U		
1,2-Dichloroethane	10 U	10,000 U	10,000 U		
2-Butanone	10 U	10,000 U	10,000 U		
1,1,1-Trichloroethane	10 U	10,000 U	10,000 U		
Carbon Tetrachloride	10 U	10,000 U	10,000 U		
Bromodichloromethane	10 U	10,000 U	10,000 U		
1,2-Dichloropropane	10 U	10,000 U	10,000 U		
cis-1,3-Dichloropropene	10 U	10,000 U	10,000 U		
Trichloroethene	10 U	3,600 JB	4,000 JB		
Dibromochloromethane	10 U	10,000 U	10,000 U		
1,1,2-Trichloroethane	10 U	10,000 U	10,000 U		
Benzene	10 U	10,000 U	10,000 U		
trans-1,3-Dichloropropene	10 U	10,000 U	10,000 U		
Bromoform	10 U	10,000 U	10,000 U		
4-Methyl-2-Pentanone	10 U	10,000 U	10,000 U		
2-Hexanone	10 U	10,000 U	10,000 U		
Tetrachloroethene	10 U	120,000	120,000		
1,1,2,2-Tetrachloroethane	10 U	10,000 U	10,000 U		
Toluene	10 U	10,000 U	10,000 U		
Chlorobenzene	10 U	10,000 U	10,000 U		
Ethylbenzene	10 U	10,000 U	10,000 U		
Styrene	10 U	10,000 U	10,000 U		
Xylene (total)	10 U	10,000 U	10,000 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.90)	ND	5,000 J	5,000 J	qualify	67
Unknown Siloxane (18.86)	ND	5,600 J	6,000 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Trip Blank (Lab. #: 81441) Received 9/2					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	1 JB	1 JB	negate	1
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample FSMW-02A (Lab. #: 81437) Received 9/2					
TCL Volatile Organics	(Diluted 250X)				
Chloromethane	10 U	2,500 U	2,500 U		
Bromomethane	10 U	2,500 U	2,500 U		
Vinyl Chloride	10 U	2,500 U	2,500 U		
Chloroethane	10 U	2,500 U	2,500 U		
Methylene Chloride	1 J	410 JB	500 JB	negate	1,5
Acetone	10 U	2,500 U	2,500 U		
Carbon Disulfide	10 U	180 J	175 J		
1,1-Dichloroethene	10 U	2,500 U	2,500 U		
1,1-Dichloroethane	10 U	2,500 U	2,500 U		
1,2-Dichloroethene (total)	10 U	2,500 U	2,500 U		
Chloroform	10 U	2,500 U	2,500 U		
1,2-Dichloroethane	10 U	2,500 U	2,500 U		
2-Butanone	10 U	2,500 U	2,500 U		
1,1,1-Trichloroethane	10 U	2,500 U	2,500 U		
Carbon Tetrachloride	10 U	2,500 U	2,500 U		
Bromodichloromethane	10 U	2,500 U	2,500 U		
1,2-Dichloropropane	10 U	2,500 U	2,500 U		
cis-1,3-Dichloropropene	10 U	2,500 U	2,500 U		
Trichloroethene	10 U	2,500 U	2,500 U		
Dibromochloromethane	10 U	2,500 U	2,500 U		
1,1,2-Trichloroethane	10 U	2,500 U	2,500 U		
Benzene	10 U	2,500 U	2,500 U		
trans-1,3-Dichloropropene	10 U	2,500 U	2,500 U		
Bromoform	10 U	2,500 U	2,500 U		
4-Methyl-2-Pentanone	10 U	2,500 U	2,500 U		
2-Hexanone	10 U	2,500 U	2,500 U		
Tetrachloroethene	10 U	18,000	17,750		
1,1,2,2-Tetrachloroethane	10 U	2,500 U	2,500 U		
Toluene	10 U	2,500 U	2,500 U		
Chlorobenzene	10 U	2,500 U	2,500 U		
Ethylbenzene	10 U	2,500 U	2,500 U		
Styrene	10 U	2,500 U	2,500 U		
Xylene (total)	10 U	2,500 U	2,500 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample LRF-1 101 Frost (Lab. #: 81099)					
TCL Volatile Organics	(Diluted 2X)				
Chloromethane	10 U	20 U	20 U		
Bromomethane	10 U	20 U	20 U		
Vinyl Chloride	10 U	20 U	20 U		
Chloroethane	10 U	20 U	20 U		
Methylene Chloride	1 J	2 JB	2 JB	negate	1,5
Acetone	10 U	20 U	20 U		
Carbon Disulfide	10 U	20 U	20 U		
1,1-Dichloroethene	10 U	20 U	20 U		
1,1-Dichloroethane	10 U	5 JB	4 JB		
1,2-Dichloroethene (total)	10 U	20 U	20 U		
Chloroform	10 U	20 U	20 U		
1,2-Dichloroethane	10 U	20 U	20 U		
2-Butanone	10 U	20 U	20 U		
1,1,1-Trichloroethane	10 U	130	134		
Carbon Tetrachloride	10 U	20 U	20 U		
Bromodichloromethane	10 U	20 U	20 U		
1,2-Dichloropropane	10 U	20 U	20 U		
cis-1,3-Dichloropropene	10 U	20 U	20 U		
Trichloroethene	10 U	1 JB	1 JB		
Dibromochloromethane	10 U	20 U	20 U		
1,1,2-Trichloroethane	10 U	20 U	20 U		
Benzene	10 U	20 U	20 U		
trans-1,3-Dichloropropene	10 U	20 U	20 U		
Bromoform	10 U	20 U	20 U		
4-Methyl-2-Pentanone	10 U	20 U	20 U		
2-Hexanone	10 U	20 U	20 U		
Tetrachloroethene	10 U	29	28		
1,1,2,2-Tetrachloroethane	10 U	20 U	20 U		
Toluene	10 U	20 U	20 U		
Chlorobenzene	10 U	20 U	20 U		
Ethylbenzene	10 U	20 U	20 U		
Styrene	10 U	20 U	20 U		
Xylene (total)	10 U	20 U	20 U		
Non-Target Volatile Organics					
2,2,3,3-Tetrachlorobutne (16.00)	ND	42 NJ	42 NJ		
Unknown Siloxzne (16.87)	ND	12 J	12 J	qualify	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample MW-1 EZ-EM (Lab. #: 81100) Received 9/1					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	4 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	11	11		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Propane, 2-methoxy-2-methyl (8.22)	ND	39 NJ	39 NJ		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 81102) Received 9/1					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	2 JB	2 JB	negate	1
Acetone	4 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample MW-5 Anson (Lab. #: 81098) Received 9/01					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J qualify	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	10 U	10 U		
Acetone	4 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Holding Times

All samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with either of the two initial calibrations of this sample delivery group.

The percent difference of bromomethane was above the 25% quality assurance limit in the second continuing calibration associated with this sample delivery group. The data for this compound was flagged with the "J" qualifier and footnoted with #15 in the data validation summary table in those samples which were affected by the calibration problem. This compound was not detected in any of the samples of this delivery group. It is possible that very low concentrations of this compound may have been overlooked.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample FSMW-02A (Lab. #: 81437) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

It should be noted that the matrix spike was analyzed with a 250X dilution.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Low concentrations of methylene chloride (1J ug/l) and acetone (4J ug/l) were detected in the method blank associated with the analyses of the samples of 9/4. Methylene chloride was only detected in the trip blank collected on 9/1. Neither

methylen chloride or acetone were detected in any of the samples which were analyzed with this method blank. Acetone was negated from the 9/2 trip blank according to standard EPA data validation procedures.

Trip Blanks

Methylene chloride (2JB ug/l) was detected in the trip blank received on 9/1. Methylene chloride was detected in sample LRF-1 101 Frost which was associated with this trip blank, but methylene chloride was negated in this sample due to its presence in the method blank.

Methylene chloride (1JB ug/l) was also detected in the trip blank received on 9/2. Methylene chloride was detected in samples FSMW-02A and FSMW-04A which were associated with this trip blank, but methylene chloride was negated in these sample due to its presence in the method blank.

Methylene chloride (2JB ug/l) was also detected in the trip blank received on 9/3. Methylene chloride was not detected in any of the samples which were received on this date.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Non-target siloxanes were detected in several of the samples of this delivery group and they are likely due to a laboratory artifact caused to column bleed. They were flagged with the "J" qualifier and footnoted with #67 in the data validation summary table.

Sample LRF-1 101 Frost (Lab. #: 81099)

This sample was analyzed at a 2x dilution even though no volatile compounds were present at concentrations above the linear range.

The non-target siloxane detected in this sample may be a laboratory artifact due to column bleed. It was flagged with the "J" qualifier and footnoted with #67 in the data validation summary table.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

Water Volatile Organic Analyses - Method 95-1
Samples Received: September 1st, 2nd & 3rd, 1998
Sample Delivery Group: G8771
Laboratory Reference Numbers:

Received 9/1

Trip Blank	81102
MW-5 Anson	81098
LRF-1 101 Frost	81099
MW-1 EZ-EM	81100

Received 9/2

Trip Blank	81441
FSMW-02A	81437
FSMW-02AMS	81437MS
FSMW-02AMSD	81437MSD
FSMW-02B	81438
FSMW-02C	81439
FSMW-04A	81440
FSGP-03 60-65	81442
101DWA-8 79-80	81443

Received 9/3

Trip Blank	81700
FSMW-04B	81697
FSMW-01B	81698
FSMW-01A	81699
98DWA-SHMW 60-65	81702

Water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- Calibrations
- Laboratory Blanks
- Field Blanks
- Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

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NOV 12 1998

* - Indicates that all criteria were met for this parameter.

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DATA VALIDATION SUMMARY

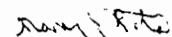
Soil samples 101DWA-6 (50-54), DWA-18 (51-53) and 89DWA-16 (31-33) were also noted on the chain of custody form, but were not analyzed. The reason for this discrepancy was be noted a revised case narrative submitted on 11/5.

The chain of custody notes that the samples were received over three days, but the cover page states that all samples were received on 9/1. A new cover letter was received on 11/5.

Sample LRF-1 101 Frost (Lab. #: 81099) was analyzed at a 2x dilution even though no volatile compounds were present at concentrations above the linear range.

Sample 98DWA-SHMW 60-65 (Lab. #: 81702) was analyzed at a 100x dilution, but the highest compound in the sample was only present at a concentration of 56 ug/l in this dilution.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
November 5, 1998

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7852

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-11S (Lab. #: 80577)					
		% Solids = 86.9			
Aluminum	18.980 U	1,860.00	1,862.46		
Antimony	0.740 U	0.81 U	0.81 U		
Arsenic	0.680 U	2.60	2.62		
Barium	0.200 U	23.50 B	23.52 B		
Beryllium	0.040 U	0.14 B	0.14 B		
Cadmium	0.080 U	0.99 B	0.99 B		
Calcium	25.200 U	2,030.00	2,029.04		
Chromium	0.260 U	14.60	14.62	* J	qualify 43
Cobalt	0.200 U	2.40 B	2.44 B		
Copper	0.340 U	25.70	25.69		
Iron	9.920 U	6,650.00	6,648.04	* J	qualify 45
Lead	0.540 U	112.00	111.87		
Magnesium	17.100 U	1,120.00	1,115.90		
Manganese	0.100 U	99.50	99.49		
Mercury	0.050 U	0.100 B	0.104 B		
Nickel	0.320 U	8.40 B	8.44 B		
Potassium	31.400 U	169.00 B	169.21 B		
Selenium	0.740 U	0.81 U	0.81 U		
Silver	0.200 U	0.22 U	0.22 U		
Sodium	90.013 B	128.00 B	128.05 B		
Thallium	0.920 U	1.00 U	1.01 U		
Vanadium	0.300 U	12.60	12.61		
Zinc	0.600 U	276.00	276.40		
Cyanide	0.500 U	2.80	2.82		

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

**New York State Department of Environmental Conservation
Data Validation Summary Form**

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
G8771	9/1/98	95	Trip Blank	81102	Water	Yes	NA	NA	NA		
G8771	9/1/98	95	MW-5 Anson	81098	Water	Yes	NA	NA	NA		
G8771	9/1/98	95	LRF-1 101 Frost	81099	Water	See Text	NA	NA	NA		
G8771	9/1/98	95	MW-1 EZ-EM	81100	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	Trip Blank	81441	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	FSMW-02A	81437	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	FSMW-02AMS	81437MS	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	FSMW-02AMSD	81437MSD	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	FSMW-02B	81438	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	FSMW-02C	81439	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	FSMW-04A	81440	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	FSGP-03 60-65	81442	Water	Yes	NA	NA	NA		
G8771	9/2/98	95	101DWA-8 79-80	81443	Water	Yes	NA	NA	NA		
G8771	9/3/98	95	Trip Blank	81700	Water	Yes	NA	NA	NA		
G8771	9/3/98	95	FSMW-04B	81697	Water	Yes	NA	NA	NA		
G8771	9/3/98	95	FSMW-01B	81698	Water	Yes	NA	NA	NA		
G8771	9/3/98	95	FSMW-01A	81699	Water	Yes	NA	NA	NA		
G8771	9/3/98	95	98DWA-SHMW 60-65	81702	Water	See Text	NA	NA	NA		

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NOV 12 1998

For Hazardous Waste Section

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7852

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-1-S (Lab. #: 80573)					
		% Solids = 96.3			
Aluminum	18.980 U	1,040.00	1,041.68		
Antimony	0.740 U	0.75 U	0.75 U		
Arsenic	0.680 U	0.69 U	0.69 U		
Barium	0.200 U	4.60 B	4.56 B		
Beryllium	0.040 U	0.15 B	0.15 B		
Cadmium	0.080 U	0.08 U	0.08 U		
Calcium	25.200 U	74.90 B	74.91 B		
Chromium	0.260 U	5.00	4.95	* J qualify	43
Cobalt	0.200 U	0.75 B	0.75 B		
Copper	0.340 U	2.50 B	2.52 B		
Iron	9.920 U	3,900.00	3,903.24	* J qualify	45
Lead	0.540 U	1.60	1.57	J qualify	21
Magnesium	17.100 U	194.00 B	194.35 B		
Manganese	0.100 U	34.60	34.63		
Mercury	0.050 U	0.050 U	0.05 U		
Nickel	0.320 U	1.70 B	1.66 B		
Potassium	31.400 U	109.00 B	109.46 B		
Selenium	0.740 U	0.75 U	0.75 U		
Silver	0.200 U	0.20 U	0.20 U		
Sodium	90.013 B	103.00 B	103.33 B		
Thallium	0.920 U	0.94 U	0.94 U		
Vanadium	0.300 U	4.20 B	4.18 B		
Zinc	0.600 U	6.30	6.31		
Cyanide	0.500 U	0.52 U	0.52 U		
Sample 101-9-S (Lab. #: 80574)					
		% Solids = 91.2			
Aluminum	18.980 U	1,250.00	590.57		
Antimony	0.740 U	0.81 U	0.81 U		
Arsenic	0.680 U	0.75 U	0.66 U		
Barium	0.200 U	6.40 B	6.45 B		
Beryllium	0.040 U	0.10 B	0.10 B		
Cadmium	0.080 U	0.10 B	0.10 B		
Calcium	25.200 U	795.00 B	794.96 B		
Chromium	0.260 U	4.20	4.15	* J qualify	43
Cobalt	0.200 U	1.10 B	1.07 B		
Copper	0.340 U	7.90	7.92		
Iron	9.920 U	3,250.00	3,245.61	* J qualify	45
Lead	0.540 U	13.10	13.14		
Magnesium	17.100 U	605.00 B	605.48 B		
Manganese	0.100 U	36.90	36.95		
Mercury	0.050 U	0.050 U	0.055 U		
Nickel	0.320 U	3.40 B	3.41 B		
Potassium	31.400 U	99.60 B	99.61 B		
Selenium	0.740 U	0.81 U	0.81 U		
Silver	0.200 U	0.22 U	0.22 U		
Sodium	90.013 B	115.00 B	115.18 B		
Thallium	0.920 U	1.00 U	1.01 U		
Vanadium	0.300 U	6.60 B	6.57 B		
Zinc	0.600 U	83.30	83.29		
Cyanide	0.500 U	0.55 U	0.55 U		

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7852

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-12S (Lab. #: 80575)					
		% Solids = 95.3			
Aluminum	18.980 U	1,060.00	1,061.51		
Antimony	0.740 U	0.74 U	0.74 U		
Arsenic	0.680 U	0.68 U	0.68 U		
Barium	0.200 U	5.40 B	5.37 B		
Beryllium	0.040 U	0.08 B	0.08 B		
Cadmium	0.080 U	0.12 B	0.12 B		
Calcium	25.200 U	234.00 B	234.25 B		
Chromium	0.260 U	3.20	3.17	* J	qualify 43
Cobalt	0.200 U	1.10 B	1.13 B		
Copper	0.340 U	12.20	12.23		
Iron	9.920 U	3,460.00	3,463.75	* J	qualify 45
Lead	0.540 U	62.80	62.78		
Magnesium	17.100 U	306.00 B	305.80 B		
Manganese	0.100 U	60.80	60.78		
Mercury	0.050 U	0.200	0.197		
Nickel	0.320 U	2.90 B	2.87 B		
Potassium	31.400 U	86.20 B	86.24 B		
Selenium	0.740 U	0.74 U	0.74 U		
Silver	0.200 U	0.20 U	0.20 U		
Sodium	90.013 B	121.00 B	120.52 B		
Thallium	0.920 U	0.92 U	0.92 U		
Vanadium	0.300 U	5.10 B	5.06 B		
Zinc	0.600 U	28.30	28.34		
Cyanide	0.500 U	0.52 U	0.52 U		
Sample 101-13S (Lab. #: 80576)					
		% Solids = 86.6			
Aluminum	18.980 U	1,880.00	1,883.35		
Antimony	0.740 U	0.84 U	0.84 U		
Arsenic	0.680 U	2.20 B	2.24 B		
Barium	0.200 U	12.30 B	12.27 B		
Beryllium	0.040 U	0.12 B	0.12 B		
Cadmium	0.080 U	0.74 B	0.74 B		
Calcium	25.200 U	31,800.00	31,789.16		
Chromium	0.260 U	17.50	17.50	* J	qualify 43
Cobalt	0.200 U	3.30 B	3.28 B		
Copper	0.340 U	65.30	65.34		
Iron	9.920 U	7,800.00	7,804.65	* J	qualify 45
Lead	0.540 U	288.00	288.23		
Magnesium	17.100 U	2,370.00	2,370.60		
Manganese	0.100 U	137.00	136.89		
Mercury	0.050 U	0.360	0.359		
Nickel	0.320 U	18.60	18.60		
Potassium	31.400 U	115.00 B	114.98 B		
Selenium	0.740 U	0.84 U	0.84 U		
Silver	0.200 U	0.23 U	0.23 U		
Sodium	90.013 B	238.00 B	237.74 B		
Thallium	0.920 U	1.00 U	1.04 U		
Vanadium	0.300 U	28.60	28.57		
Zinc	0.600 U	153.00	153.24		
Cyanide	0.500 U	0.58 U	0.58 U		

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7852

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-7-S (Lab. #: 80569)					
	% Solids = 85.5				
Aluminum	18.980 U	1,000.00	1,011.46		
Antimony	0.740 U	0.86 U	0.87 U		
Arsenic	0.680 U	1.30 B	1.27 B		
Barium	0.200 U	8.60 B	8.66 B		
Beryllium	0.040 U	0.11 B	0.11 B		
Cadmium	0.080 U	0.38 B	0.39 B		
Calcium	25.200 U	7,010.00	7,078.36		
Chromium	0.260 U	7.30	7.33	* J	qualify 43
Cobalt	0.200 U	0.94 B	0.95 B		
Copper	0.340 U	9.40	9.53		
Iron	9.920 U	3,400.00	3,433.92	* J	qualify 45
Lead	0.540 U	15.10	15.28		
Magnesium	17.100 U	2,750.00	2,774.27		
Manganese	0.100 U	40.70	41.12		
Mercury	0.050 U	0.060 U	0.058 U		
Nickel	0.320 U	2.80 B	2.86 B		
Potassium	31.400 U	74.20 B	74.97 B		
Selenium	0.740 U	0.86 U	0.87 U		
Silver	0.200 U	0.23 U	0.23 U		
Sodium	90.013 B	118.00 B	119.49 B		
Thallium	0.920 U	1.10 U	1.08 U		
Vanadium	0.300 U	5.60 B	5.66 B		
Zinc	0.600 U	97.60	98.62		
Cyanide	0.500 U	0.58 U	0.58 U		
Sample 101-8-S (Lab. #: 80570)					
	% Solids = 85.1				
Aluminum	18.980 U	905.00	904.48		
Antimony	0.740 U	0.83 U	0.83 U		
Arsenic	0.680 U	1.20 B	1.24 B		
Barium	0.200 U	13.40 B	13.40 B		
Beryllium	0.040 U	0.08 B	0.08 B		
Cadmium	0.080 U	0.74 B	0.74 B		
Calcium	25.200 U	2,240.00	2,244.98		
Chromium	0.260 U	13.40	13.40	* J	qualify 43
Cobalt	0.200 U	1.60 B	1.56 B		
Copper	0.340 U	36.20	36.19		
Iron	9.920 U	3,720.00	3,719.99	* J	qualify 45
Lead	0.540 U	95.10	95.08		
Magnesium	17.100 U	1,250.00	1,251.86		
Manganese	0.100 U	26.50	26.52		
Mercury	0.050 U	0.130	0.133		
Nickel	0.320 U	5.30 B	5.35 B		
Potassium	31.400 U	61.40 B	61.42 B		
Selenium	0.740 U	0.83 U	0.83 U		
Silver	0.200 U	0.24 B	0.24 B		
Sodium	90.013 B	136.00 B	126.24 B		
Thallium	0.920 U	1.00 U	1.03 U		
Vanadium	0.300 U	9.90 B	9.90 B		
Zinc	0.600 U	111.00	110.61		
Cyanide	0.500 U	0.59 U	0.59 U		

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7852

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes

Sample 101-5-S (Lab. #: 80571)

% Solids = 90.2

Aluminum	18.980 U	834.00	834.18		
Antimony	0.740 U	0.80 U	0.80 U		
Arsenic	0.680 U	1.50 B	1.51 B		
Barium	0.200 U	21.60 B	21.63 B		
Beryllium	0.040 U	0.13 B	0.13 B		
Cadmium	0.080 U	0.24 B	0.24 B		
Calcium	25.200 U	304.00 B	304.18 B		
Chromium	0.260 U	2.80	2.81	* J	qualify 43
Cobalt	0.200 U	6.70 B	6.69 B		
Copper	0.340 U	57.60	57.63		
Iron	9.920 U	5,850.00	5,846.77	* J	qualify 45
Lead	0.540 U	4.40	4.43		
Magnesium	17.100 U	232.00 B	232.28 B		
Manganese	0.100 U	32.40	32.36		
Mercury	0.050 U	0.330	0.331		
Nickel	0.320 U	1.20 B	1.19 B		
Potassium	31.400 U	117.00 B	117.24 B		
Selenium	0.740 U	0.80 U	0.80 U		
Silver	0.200 U	0.22 U	0.22 U		
Sodium	90.013 B	120.00 B	119.99 B		
Thallium	0.920 U	0.99 U	0.99 U		
Vanadium	0.300 U	3.80 B	3.84 B		
Zinc	0.600 U	38.80	38.79		
Cyanide	0.500 U	0.55 U	0.55 U		

Sample 101-6-S (Lab. #: 80572)

% Solids = 93.5

Aluminum	18.980 U	1,070.00	1,070.76		
Antimony	0.740 U	0.77 U	0.77 U		
Arsenic	0.680 U	0.91 B	0.91 B		
Barium	0.200 U	9.20 B	9.19 B		
Beryllium	0.040 U	0.14 B	0.14 B		
Cadmium	0.080 U	0.16 B	0.16 B		
Calcium	25.200 U	1,570.00	1,571.67		
Chromium	0.260 U	5.00	4.96	* J	qualify 43
Cobalt	0.200 U	1.40 B	1.35 B		
Copper	0.340 U	8.90	8.95		
Iron	9.920 U	6,740.00	6,745.24	* J	qualify 45
Lead	0.540 U	10.30	10.34		
Magnesium	17.100 U	752.00 B	751.57 B		
Manganese	0.100 U	115.00	115.03		
Mercury	0.050 U	0.050 U	0.053 U		
Nickel	0.320 U	3.00 B	3.03 B		
Potassium	31.400 U	88.50 B	88.47 B		
Selenium	0.740 U	0.77 U	0.77 U		
Silver	0.200 U	0.21 U	0.21 U		
Sodium	90.013 B	124.00 B	124.38 B		
Thallium	0.920 U	0.96 U	0.96 U		
Vanadium	0.300 U	7.80 B	7.77 B		
Zinc	0.600 U	56.30	56.32		
Cyanide	0.500 U	0.53 U	0.53 U		

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7852

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-3-S (Lab. #: 80564)					
		% Solids = 94.8			
Aluminum	18.980 U	1,260.00	1,258.59		
Antimony	0.740 U	0.74 U	0.74 U		
Arsenic	0.680 U	0.85 B	0.85 B		
Barium	0.200 U	8.70 B	8.72 B		
Beryllium	0.040 U	0.10 B	0.10 B		
Cadmium	0.080 U	0.08 U	0.08 U		
Calcium	25.200 U	699.00 B	698.61 B		
Chromium	0.260 U	2.40	2.43	* J	qualify 43
Cobalt	0.200 U	1.30 B	1.34 B		
Copper	0.340 U	4.10 B	4.15 B		
Iron	9.920 U	3,620.00	3,622.66	* J	qualify 45
Lead	0.540 U	2.90	2.89		
Magnesium	17.100 U	537.00 B	536.87 B		
Manganese	0.100 U	69.60	69.58		
Mercury	0.050 U	0.050 U	0.05 U		
Nickel	0.320 U	1.40 B	1.39 B		
Potassium	31.400 U	178.00 B	178.36 B		
Selenium	0.740 U	0.74 U	0.74 U		
Silver	0.200 U	0.20 U	0.20 U		
Sodium	90.013 B	102.00 B	102.15 B		
Thallium	0.920 U	0.92 U	0.92 U		
Vanadium	0.300 U	5.00 B	4.99 B		
Zinc	0.600 U	19.50	19.51		
Cyanide	0.500 U	0.53 U	0.53 U		
Sample 1101-4-S (Lab. #: 80565)					
		% Solids = 93.8			
Aluminum	18.980 U	992.00	992.32		
Antimony	0.740 U	0.79 U	0.79 U		
Arsenic	0.680 U	1.30 B	1.30 B		
Barium	0.200 U	3.70 B	3.67 B		
Beryllium	0.040 U	0.08 B	0.08 B		
Cadmium	0.080 U	0.42 B	0.42 B		
Calcium	25.200 U	1,220.00	1,224.09		
Chromium	0.260 U	4.50	4.52	* J	qualify 43
Cobalt	0.200 U	0.97 B	0.97 B		
Copper	0.340 U	17.40	17.43		
Iron	9.920 U	4,470.00	4,466.95	* J	qualify 45
Lead	0.540 U	75.40	75.42		
Magnesium	17.100 U	774.00 B	774.20 B		
Manganese	0.100 U	33.40	33.41		
Mercury	0.050 U	0.230	0.228		
Nickel	0.320 U	2.90 B	2.91 B		
Potassium	31.400 U	56.20 B	56.18 B		
Selenium	0.740 U	0.79 U	0.79 U		
Silver	0.200 U	0.21 U	0.21 U		
Sodium	90.013 B	123.00 B	122.75 B		
Thallium	0.920 U	0.98 U	0.98 U		
Vanadium	0.300 U	5.70 B	5.67 B		
Zinc	0.600 U	39.50	39.49		
Cyanide	0.500 U	0.53 U	0.53 U		

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7852

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 10110AS (Lab. #: 80566)					
		% Solids = 91.5			
Aluminum	18.980 U	1,170.00	1,165.90		
Antimony	0.740 U	0.81 U	0.81 U		
Arsenic	0.680 U	1.00 B	1.02 B		
Barium	0.200 U	12.50 B	12.53 B		
Beryllium	0.040 U	0.10 B	0.10 B		
Cadmium	0.080 U	0.41 B	0.41 B		
Calcium	25.200 U	4,350.00	4,349.73		
Chromium	0.260 U	9.00	9.01	* J	qualify 43
Cobalt	0.200 U	1.50 B	1.53 B		
Copper	0.340 U	17.50	17.46		
Iron	9.920 U	4,550.00	4,546.45	* J	qualify 45
Lead	0.540 U	63.30	63.34		
Magnesium	17.100 U	1,040.00 B	1,035.19 B		
Manganese	0.100 U	54.10	54.08		
Mercury	0.050 U	0.050 U	0.055 U		
Nickel	0.320 U	4.70 B	4.72 B		
Potassium	31.400 U	82.50 B	82.47 B		
Selenium	0.740 U	0.81 U	0.81 U		
Silver	0.200 U	0.22 U	0.22 U		
Sodium	90.013 B	194.00 B	194.08 B		
Thallium	0.920 U	1.00 U	1.01 U		
Vanadium	0.300 U	6.60 B	6.59 B		
Zinc	0.600 U	216.00	215.54		
Cyanide	0.500 U	0.55 U	0.55 U		
Sample 101-2-S (Lab. #: 80568)					
		% Solids = 89.7			
Aluminum	18.980 U	575.00	574.68		
Antimony	0.740 U	0.81 U	0.81 U		
Arsenic	0.680 U	0.74 U	0.74 U		
Barium	0.200 U	4.20 B	4.20 B		
Beryllium	0.040 U	0.07 B	0.07 B		
Cadmium	0.080 U	0.09 U	0.09 U		
Calcium	25.200 U	98.50 B	98.52 B		
Chromium	0.260 U	2.00 B	2.00 B	* J	qualify 43
Cobalt	0.200 U	0.48 B	0.48 B		
Copper	0.340 U	1.80 B	1.81 B		
Iron	9.920 U	2,110.00	2,110.96	* J	qualify 45
Lead	0.540 U	1.10	1.15	J	qualify 21
Magnesium	17.100 U	123.00 B	122.65 B		
Manganese	0.100 U	22.70	22.71		
Mercury	0.050 U	0.060 U	0.056 U		
Nickel	0.320 U	0.75 B	0.75 B		
Potassium	31.400 U	66.30 B	66.32 B		
Selenium	0.740 U	0.81 U	0.81 U		
Silver	0.200 U	0.22 U	0.22 U		
Sodium	90.013 B	138.00 B	137.74 B		
Thallium	0.920 U	1.00 U	1.01 U		
Vanadium	0.300 U	2.10 B	2.06 B		
Zinc	0.600 U	12.10	12.09		
Cyanide	0.500 U	0.56 U	0.56 U		

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits with the following exceptions:

<u>Analyte</u>	<u>Initial % Recovery</u>	<u>Final % Recovery</u>
Lead	133%	137%

Low concentrations of lead were flagged with the "J" qualifier and footnoted with #21 in the data validation summary table. It is possible that these low concentrations may have been slightly overestimated.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Several analytes were found in the preparation blanks at concentrations between the absolute value of CRDL and instrument detection limit. The data were not required to be qualified for these low concentrations.

Calibration Blanks

Several analytes were found in the continuing calibration blanks at concentrations between the CRDL and instrument detection limit. The data were not required to be qualified for these low concentrations.

Field Blank

A field blank was not submitted with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

All of the traditional furnace analytes were also included in solution AB.

Matrix Spike Recovery

Sample DW-101-1-S (Lab #: 80573) of this sample delivery group was used for the matrix spike. All recoveries were within the 75% - 125% quality assurance limits.

Duplicate Analysis

Sample DW-101-1-S (Lab #: 80573) this sample delivery group was also used for the matrix duplicate for the full inorganic TCL analyte list. All recoveries which could be calculated were within the acceptable limits with the following two exceptions:

Analyte	RPD	Qualifier
Chromium	101%	43
Iron	23%	45

All of the reported iron data should be considered to be estimated, while all of the chromium data should be considered to be highly estimated.

Laboratory Control Sample

No problems were detected with the recoveries of the soil LCS standard.

Serial Dilutions

Sample DW-101-1-S (Lab #: 80573) of this sample delivery group was also used for the serial dilution. All of the percent differences which could be calculated were within the required quality assurance limits.

Instrument Detection Limit

No problems with the instrument detection limits were found.

ICP Linear Ranges

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No problems, other than those noted above, were found with any of the reported sample data.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil TAL Inorganic and Cyanide Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7852

Laboratory Reference Numbers:

DW-101-3-S	80564
DW-101-4-S	80565
DW-101-10A-S	80566
DW-101-2-S	80568
DW-101-7-S	80569
DW-101-8-S	80570
DW-101-5-S	80571
DW-101-6-S	80572
DW-101-1-S	80573
DW-101-1-SMS	80573MS
DW-101-1-SMD	80573MD
DW-101-9-S	80574
DW-101-12-S	80575
SMH-101-13-S	80576
DW-101-11-S	80577

Soil samples were received for TAL metals analyses by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
 - CRDL Standards
- * - ICP Interference Check Sample
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
 - Field Blanks
- * - Preparation Blanks
- * - Matrix Spike
 - Duplicate Analyses
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

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NOV 12 1998

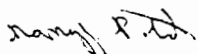
For Hazardous Waste Section

Data Validation Summary

The chain of custody form notes that organic samples were received with this sample delivery group, but they were not reported in this analytical package. This omission was noted in the laboratory's revised cover page.

The high RPDs of chromium (101%) and iron (23%) in the matrix duplicate analysis should be noted. The data for these two analytes should be considered to be estimated.

No other problems significant problems were found which would affect the end use of the data.


Nancy J. Potak
November 5, 1998

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7852

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPM)	Reported Conc. (PPM)	Validation Reported Conc. Decision		
Water Sample SSEB-1 (Lab. #: 78545) Received 8/20					
Aluminum	NA	95.60 B	95.60 B		
Antimony	NA	3.70 U	3.70 U		
Arsenic	NA	3.40 U	3.40 U		
Barium	NA	1.00 U	1.00 U		
Beryllium	NA	0.20 U	0.20 U		
Cadmium	NA	0.40 U	0.40 U		
Calcium	NA	183.00 B	*	182.60 B	See Text
Chromium	NA	1.30 U	*	1.30 U	See Text
Cobalt	NA	1.00 U		1.70 U	
Copper	NA	1.70 U	*	1.70 U	See Text
Iron	NA	49.60 U		49.60 U	
Lead	NA	2.70 U		2.70 U	
Magnesium	NA	85.50 U	*	85.50 U	See Text
Manganese	NA	0.62 B		0.62 B	
Mercury	NA	0.10 U		0.10 U	
Nickel	NA	1.60 U	N*	1.60 U	See Text
Potassium	NA	157.00 U		157.00 U	
Selenium	NA	3.70 U		3.70 U	
Silver	NA	1.00 U		1.00 U	
Sodium	NA	425.00 B		424.80 B	
Thallium	NA	4.60 U		4.60 U	
Vanadium	NA	1.50 U		1.50 U	
Zinc	NA	3.50 B		3.46 B	
Cyanide	NA	10.00 U		10.00 U	

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

**New York State Department of Environmental Conservation
Data Validation Summary Form**

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
G7852	8/27/98	95	DW-101-3-S	80564	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-4-S	80565	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-10A-S	80566	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-2-S	80568	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-7-S	80569	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-8-S	80570	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-5-S	80571	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-6-S	80572	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-1-S	80573	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-1-SMS	80573MS	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-1-SMD	80573MD	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-9-S	80574	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-12-S	80575	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	SMH-101-13-S	80576	Soil	NA	NA	Yes	NA		
G7852	8/27/98	95	DW-101-11-S	80577	Soil	NA	NA	Yes	NA		

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NOV 12 1998

For Hazardous Waste Section

Serial Dilutions

Soil sample 101SS-1 (Lab. #: 78279) of this sample delivery group was also used for the serial dilution. All of the percent differences which could be calculated were within the required quality assurance limits.

Instrument Detection Limit

No problems with the instrument detection limits were found.

ICP Linear Ranges

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No problems, other than those above, were found with any of the reported sample data.

Data Validation Summary Table
For Frost Street Sites

Soil and Water TAL Inorganic and Cyanide Analyses

Samples Received: August 19th & 20th , 1998

Sample Delivery Group: G2813

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Soil Sample 101SS-2 (Lab. #: 78277) Received 8/19					
% Solids = 97.1					
Aluminum	18.980 U	2,480.00	2,484.43		
Antimony	0.740 U	0.75 U	0.76 U		
Arsenic	0.680 U	1.60 B	1.59 B		
Barium	0.200 U	26.90 B	26.95 B		
Beryllium	0.040 U	0.12 B	0.12 B		
Cadmium	0.080 U	0.26 B	0.26 B		
Calcium	25.200 U	33,300.00	33,295.91	* J	43
Chromium	0.260 U	8.10	8.11	* J	43
Cobalt	0.200 U	2.60 B	2.63 B		
Copper	0.340 U	17.60	17.60	* J	43
Iron	9.920 U	6,560.00	6,563.23		
Lead	0.540 U	45.80	45.81		
Magnesium	17.100 U	18,200.00	18,260.69	* J	43
Manganese	0.100 U	111.00	111.56		
Mercury	0.050 U	0.05 U	0.05 U		
Nickel	0.320 U	9.50	9.56	N* J	43, 54
Potassium	37.755 B	408.00 B	408.49 B		
Selenium	0.740 U	0.75 U	0.76 U		
Silver	0.200 U	0.20 U	0.20 U		
Sodium	110.529 B	331.00 B	331.12 B		
Thallium	0.920 U	0.94 U	0.94 U		
Vanadium	0.300 U	29.30	29.29		
Zinc	0.600 U	159.00	158.91		
Cyanide	0.500 U	0.51 U	0.51 U		

Soil Sample 101SS-1 (Lab. #: 78279) Received 8/19

% Solids = 92.8

Aluminum	18.980 U	4,080.00	4,041.48		
Antimony	0.740 U	18.50	18.28		
Arsenic	0.680 U	3.00	2.92		
Barium	0.200 U	22.70 B	24.69 B		
Beryllium	0.040 U	0.16 B	0.16 B		
Cadmium	0.080 U	0.98 B	0.97 B		
Calcium	25.200 U	19,300.00	19,142.63	* J	43
Chromium	0.260 U	254.00	251.15	* J	43
Cobalt	0.200 U	6.00 B	5.98 B		
Copper	0.340 U	1,120.00	1,108.95	* J	43
Iron	9.920 U	10,400.00	10,344.83		
Lead	0.540 U	5,410.00	5,234.29		
Magnesium	17.100 U	10,300.00	9,967.14	* J	43
Manganese	0.100 U	142.00	140.45		
Mercury	0.050 U	0.08 B	0.07 B		
Nickel	0.320 U	125.00	123.98	N* J	43, 54
Potassium	37.755 B	347.00 B	343.55 B		
Selenium	0.740 U	0.80 U	0.79 U		
Silver	0.200 U	4.80	4.73		
Sodium	110.529 B	142.00 B	140.11 B		
Thallium	0.920 U	0.99 U	0.98 U		
Vanadium	0.300 U	25.00	24.71		
Zinc	0.600 U	804.00	796.35		
Cyanide	0.500 U	0.54 U	0.54 U		

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits with the following exceptions:

<u>Analyte</u>	<u>Initial % Recovery</u>	<u>Final % Recovery</u>
Thallium	121%	(OK)

Thallium was not detected in any of the samples in this delivery group and the high thallium recovery does not affect the end use of the data.

Initial and Continuing Calibrations

The percent recovery of the final cyanide continuing calibration standard was 153%. Cyanide was not detected in any of the samples and the high recovery does not affect the end use of the data.

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Several analytes were found in the preparation blank at concentrations between the absolute value of CRDL and instrument detection limit. The data were not required to be qualified for these low concentrations.

A preparation blank was not analyzed for the water sample.

Calibration Blanks

Several analytes were found in the continuing calibration blanks at concentrations between the CRDL and instrument detection limit. The data were not required to be qualified for these low concentrations.

Field Blank

A field blank was not submitted with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

All of the traditional furnace analytes were also included in solution AB.

Matrix Spike Recovery

Soil sample 101SS-1 (Lab. #: 78279) of this sample delivery group was used for the matrix spike. All recoveries were within the 75% - 125% quality assurance limits with the following exceptions:

Analyte	%Rec.
Nickel	54%

It is possible that the concentrations of nickel reported in these two samples may have been underestimated. The nickel data was flagged with the "J" qualifier and footnoted with #35 in the data validation summary table.

The post digestion spike recovery of nickel was 96%.

A matrix spike was not analyzed for the water sample.

The data for the water sample was also qualified on the basis of the soil matrix spike. The "N" qualifier was removed from nickel in the water sample in the data validation summary table.

Duplicate Analysis

Soil sample 101SS-1 (Lab. #: 78279) this sample delivery group was also used for the matrix duplicate for the full inorganic TCL analyte list. All recoveries which could be calculated were within the acceptable limits with the following two exceptions:

Analyte	RPD
Calcium	54%
Chromium	71%
Copper	25%
Magnesium	51%
Nickel	61%

All of the reported data for the above analytes should be considered to be estimated. The data for these analytes were flagged with the "J" qualifier and footnoted with #43 in the data validation summary table.

A matrix duplicate was not analyzed for the water sample.

The data for the water sample was also qualified on the basis of the soil matrix duplicate. The "*" qualifier was removed from nickel in the water sample in the data validation summary table.

Laboratory Control Sample

No problems were detected with the recoveries of the soil LCS standard.

A water LCS standard was not analyzed.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil and Water TAL Inorganic and Cyanide Analyses

Samples Received: August 19th & 20th, 1998

Sample Delivery Group: G2813

Laboratory Reference Numbers:

Samples Received 8/19

Soil Sample 101SS-2	78277
Soil Sample 101SS-1	78279
Soil Sample 101SS-1MS	78279MS
Soil Sample 101SS-1MSD	78279MSD

Sample Received 8/20

Water Sample S.S.E.B.-1	78545

Soil samples were received for TAL metals analyses by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- Data Completeness
- * - Holding Times
- Calibration Verification
- * - CRDL Standards
- * - ICP Interference Check Sample
- Laboratory Control Sample
- Serial Dilutions
- Laboratory Blanks
- Field Blanks
- Preparation Blanks
- Matrix Spike
- Duplicate Analyses
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

LAWLER, MATUSKY &
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NOV 12 1998

For Hazardous Waste Section

Data Validation Summary

The chain of custody form notes that organic samples were received with this sample delivery group, but they were not reported in this analytical package.

The cover letter notes that these samples were received on August 18th and 19th, but the NYS DEC ASP summary forms note them being received on August 19th and 20th. A revised cover letter was received on 11/5.

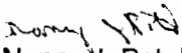
A water preparation blank was not analyzed with this sample delivery group.

The low matrix spike recovery of nickel (54%) in the soil sample should be noted. It is possible that the nickel concentrations reported in these two samples may have been underestimated.

The high RPDs of calcium (54%), chromium (70%), copper (25%), magnesium (51%) and nickel (61%) in the matrix duplicate analysis should be noted. The data for these five analytes should be considered to be estimated.

Quality assurance data was not provided for the water sample. The data for the water sample was qualified on the basis of the soil quality assurance data. The "N" and "*" qualifiers were removed from the water samples in the data validation summary table.

No other problems significant problems were found which would affect the end use of the data.


Nancy J. Potak
November 9, 1998.

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SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/N	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Pesticide and PCB Compliance	Page in CLP	Non-Compliance
G2813	8/19/99	95	Soil Sample 101SS-2	78277	Soil	NA	NA	Yes	Yes	NA		
G2813	8/19/99	95	Soil Sample 101SS-1	78279	Soil	NA	NA	Yes	Yes	NA		
G2813	8/19/99	95	Soil Sample 101SS-1MS	78279MS	Soil	NA	NA	Yes	Yes	NA		
G2813	8/19/99	95	Soil Sample 101SS-1MSD	78279MSD	Soil	NA	NA	Yes	Yes	NA		
G2813	8/19/99		Water Sample S.S.E.B.-1	78545	Water	NA	NA	Yes	Yes	NA		

For Hazardous Waste Section

JAN 27 1999
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Sample DW-101-6-S

Sample DW-101-6-S									
	Page:								
	% Solids = 94			Date:		Time:			
	Calc.	Calc.	RPD	RT Window #1		RT1	Resp 1	RT Window #2	
	Amt #1	Amt #2		From	To			From	To
alpha-BHC	0.0000	0.000		7.11	7.21			7.66	7.76
beta-BHC	0.0000	0.000		12.90	13.00			10.23	10.33
delta-BHC	0.0000	0.000		14.17	14.27			12.23	12.33
gamma-BHC (Lindane)	0.0000	0.000		9.13	9.23			9.81	9.91
Heptachlor	0.0000	0.000		10.41	10.51			11.59	11.69
Aldrin	0.0000	0.000		11.88	11.98			13.33	13.43
Heptachlor Epoxide	0.0000	0.000		15.19	15.33			16.27	16.41
Endosulfan I	0.0000	0.000		16.55	16.69			18.03	18.17
Dieldrin	0.0000	0.000		18.30	18.44			19.55	19.69
4,4'-DDE	0.0000	0.000		17.66	17.80			19.33	19.47
Endrin	0.0000	0.000		19.25	19.39			21.30	21.44
Endosulfan II	0.0000	0.000		21.44	21.58			22.22	22.36
4,4'-DDD	0.0000	0.000		21.29	21.43			22.05	22.19
Endosulfan Sulfate	0.0000	0.000		24.60	24.74			24.38	24.52
4,4'-DDT	4.7455	4.790		22.10	22.24		40.618	23.45	23.59
Methoxychlor	0.0000	0.000		24.90	25.04			27.54	27.68
Endrin Ketone	0.0000	0.000		26.36	26.50			27.82	27.96
Endrin Aldehyde	0.0000	0.000		23.23	23.37			23.78	23.92
alpha-Chlordane	0.0000	0.000		17.08	17.22			17.94	18.08
gamma-Chlordane	0.0000	0.000		16.80	16.94			17.13	17.27
TCX	66.3	61.6		4.12	4.22	4.19	118.558	4.88	4.98
DCB	70.5	80.0		30.08	30.28	30.21	95.863	33.76	33.96

Sample DW-101-12-SD1

Page:	% Solids = 94		Date:	Time:					
	Calc.	Calc.	RPD	RT Window #1		RT Window #2		RT2	Resp 2
	Amt #1	Amt #2		From	To	RT1	Resp 1	From	To
alpha-BHC	0.0000	0.000		7.11	7.21			7.66	7.76
beta-BHC	0.0000	0.000		12.90	13.00			10.23	10.33
delta-BHC	0.0000	0.000		14.17	14.27			12.23	12.33
gamma-BHC (lindane)	0.0000	0.000		9.13	9.23			9.81	9.91
Heptachlor	0.0000	0.000		10.41	10.51			11.59	11.69
Aldrin	0.0000	0.000		11.88	11.98			13.33	13.43
Heptachlor Epoxide	0.0000	0.000		15.19	15.33			16.27	16.41
Endosulfan I	0.0000	0.000		16.55	16.69			18.03	18.17
Dieldrin	0.0000	0.000		18.30	18.44			19.55	19.69
4,4'-DDE	174.0621	187.579		17.66	17.80	17.76	414.058	19.33	19.47
Endrin	0.0000	0.000		19.25	19.39			21.30	21.44
Endosulfan II	0.0000	0.000		21.44	21.58			22.22	22.36
4,4'-DDD	787.2135	1158.541	E	21.29	21.43	21.38	1,379.407	22.05	22.19
Endosulfan Sulfate	0.0000	0.000		24.60	24.74			24.38	24.52
4,4'-DDT	1601.6991	1745.039	E	22.10	22.24	22.19	2,771.042	23.45	23.59
Methoxychlor	0.0000	0.000		24.90	25.04			27.54	27.68
Endrin Ketone	0.0000	0.000		26.36	26.50			27.82	27.96
Endrin Aldehyde	0.0000	0.000		23.23	23.37			23.78	23.92
alpha-Chlordane	25.8310	16.014		17.08	17.22	17.19	74.953	17.94	18.08
gamma-Chlordane	14.2810	18.488		16.80	16.94	16.90	39.413	17.13	17.27
TCX	146.7	140.9		4.12	4.22	4.19	52.437	4.88	4.98
DCB	151.6	183.5		30.08	30.28	30.21	41,242	33.76	33.96
							</		

Sample DW-101-12-SD2

Sample DW-101-12-SD2												
Page:		% Solids = 94		Date:		Time:						
Calc.		Calc.		RT Window #1				RT Window #2				
Amt. #1	Amt. #2	RPD	From	To	RT1	Resp 1	From	To	RT2	Resp 2		
alpha-BHC	0.0000	0.000	7.11	7.21			7.66	7.76				
beta-BHC	0.0000	0.000	12.90	13.00			10.23	10.33				
delta-BHC	0.0000	0.000	14.17	14.27			12.23	12.33				
gamma-BHC (Lindane)	0.0000	0.000	9.13	9.23			9.81	9.91				
Heptachlor	0.0000	0.000	10.41	10.51			11.59	11.69				
Aldrin	0.0000	0.000	11.88	11.98			13.33	13.43				
Heptachlor Epoxide	0.0000	0.000	15.19	15.33			16.27	16.41				
Endosulfan I	0.0000	0.000	16.55	16.69			18.03	18.17				
4,4'-DDE	0.0000	0.000	17.66	17.80			19.55	19.69				
Endrin	0.0000	0.000	19.25	19.39			21.30	21.44				
Endosulfan II	0.0000	0.000	21.44	21.53			22.22	22.36				
4,4'-DDD	862.7574	1234.919	21.29	21.43	21.38	151.178	22.05	22.19	22.12	190.941		
Endosulfan Sulfate	0.0000	0.000	24.60	24.74			24.38	24.52				
4,4'-DDT	1725.4853	1689.733	22.10	22.24	22.19	298.520	23.45	23.59	23.53	252.718		
Methoxychlor	0.0000	0.000	24.90	25.04			27.54	27.68				
Endrin Ketone	0.0000	0.000	26.36	26.50			27.82	27.96				
Endrin Aldehyde	0.0000	0.000	23.23	23.37			23.78	23.92				
alpha-Chlordane	0.0000	0.000	17.08	17.22			17.94	18.08				
gamma-Chlordane	0.0000	0.000	16.80	16.94			17.13	17.27				
TCX			4.12	4.22			4.88	4.98				
DCB			30.08	30.28			33.76	33.96				
Sample DW-101-13-S												
Page:		% Solids = 13		Date:		Time:						
Calc.		Calc.		RT Window #1				RT Window #2				
Amt. #1	Amt. #2	RPD	From	To	RT1	Resp 1	From	To	RT2	Resp 2		
alpha-BHC	0.0000	0.000	7.11	7.21			7.66	7.76				
beta-BHC	0.0000	0.000	12.90	13.00			10.23	10.33				
delta-BHC	0.0000	0.000	14.17	14.27			12.23	12.33				
gamma-BHC (Lindane)	0.0000	0.000	9.13	9.23			9.81	9.91				
Heptachlor	0.0000	0.000	10.41	10.51			11.59	11.69				
Aldrin	0.0000	0.000	11.88	11.98			13.33	13.43				
Heptachlor Epoxide	0.0000	0.000	15.19	15.33			16.27	16.41				
Endosulfan I	0.0000	0.000	16.55	16.69			18.03	18.17				
Dieldrin	0.0000	0.000	18.30	18.44			19.55	19.69				
4,4'-DDE	1806.8035	1998.146	17.66	17.80	17.75	19.680.387	19.33	19.47	19.40	17.583.047		
Endrin	0.0000	0.000	19.25	19.39			21.30	21.44				
Endosulfan II	0.0000	0.000	21.44	21.58			22.22	22.36				
4,4'-DDD	1764.3564	3463.587	21.29	21.43	21.38	14.156.369	22.05	22.19	22.11	24.521.804		
Endosulfan Sulfate	0.0000	0.000	24.60	24.74			24.38	24.52				
4,4'-DDT	7181.3069	8012.306	22.10	22.24	22.26	56.889.394	23.45	23.59	23.60	54.870.785		
Methoxychlor	0.0000	0.000	24.90	25.04			27.54	27.68				
Endrin Ketone	0.0000	0.000	26.36	26.50			27.82	27.96				
Endrin Aldehyde	0.0000	0.000	23.23	23.37			23.78	23.92				
alpha-Chlordane	25.3717	12.922	17.08	17.22	17.17	337.104	17.94	18.08	18.02	148.276		
gamma-Chlordane	18.4343	17.424	16.80	16.94	16.91	232.956	17.13	17.27	17.20	196.136		
TCX	61.4	0.0	4.12	4.22	4.19	109.669	4.88	4.98				
DCB	74.0	0.0	30.08	30.28	30.21	100.684	33.76	33.96				

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Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-11-S (Lab. #: 80577)					
	% Moisture = 13				
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	2.0 U	2.0 U		
beta-BHC	1.7 U	2.0 U	2.0 U		
delta-BHC	1.7 U	2.0 U	2.0 U		
gamma-BHC (Lindane)	1.7 U	2.0 U	2.0 U		
Heptachlor	1.7 U	2.0 U	2.0 U		
Aldrin	1.7 U	2.0 U	2.0 U		
Heptachlor Epoxide	1.7 U	2.0 U	2.0 U		
Endosulfan I	1.7 U	2.0 U	2.0 U		
Dieldrin	3.2 U	3.8 U	3.8 U		
4,4'- DDE	3.2 U	9.6 P	9.6 P		
Endrin	3.2 U	3.8 U	3.8 U		
Endosulfan II	3.2 U	3.8 U	3.8 U		
4,4' - DDD	3.2 U	45	45		
Endosulfan Sulfate	3.2 U	3.8 U	3.8 U		
4,4'-DDT	3.2 U	34	34		
Methoxychlor	17 U	20 U	20 U		
Endrin Ketone	3.2 U	3.8 U	3.8 U		
Endrin Aldehyde	3.2 U	3.8 U	3.8 U		
alpha-Chlordane	1.7 U	4.8 P	4.8 P		
gamma-Chlordane	1.7 U	5.7	5.7		
Toxaphene	170 U	200 U	200 U		
Aroclor-1016	32 U	38 U	38 U		
Aroclor-1221	65 U	77 U	77 U		
Aroclor-1232	32 U	38 U	38 U		
Aroclor-1242	32 U	38 U	38 U		
Aroclor-1248	32 U	38 U	38 U		
Aroclor-1254	32 U	38 U	38 U		
Aroclor-1260	32 U	38 U	38 U		

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Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample SMH-101-13-S (Lab. #: 80576)					
	% Moisture = 13				
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	2.0 U	2.0 U		
beta-BHC	1.7 U	2.0 U	2.0 U		
delta-BHC	1.7 U	2.0 U	2.0 U		
gamma-BHC (Lindane)	1.7 U	2.0 U	2.0 U		
Heptachlor	1.7 U	2.0 U	2.0 U		
Aldrin	1.7 U	2.0 U	2.0 U		
Heptachlor Epoxide	1.7 U	2.0 U	2.0 U		
Endosulfan I	1.7 U	2.0 U	2.0 U		
Dieldrin	3.2 U	3.8 U	3.8 U		
4,4'-DDE	3.2 U	1800 E	1800 E	J qualify	72
Endrin	3.2 U	3.8 U	3.8 U		
Endosulfan II	3.2 U	3.8 U	3.8 U		
4,4'-DDD	3.2 U	1800 EP	1800 EP	J qualify	72
Endosulfan Sulfate	3.2 U	3.8 U	3.8 U		
4,4'-DDT	3.2 U	7200 E	7200 E	J qualify	72
Methoxychlor	17 U	20 U	20 U		
Endrin Ketone	3.2 U	3.8 U	3.8 U		
Endrin Aldehyde	3.2 U	3.8 U	3.8 U		
alpha-Chlordane	1.7 U	13 P	13 P		
gamma-Chlordane	1.7 U	18	18		
Toxaphene	170 U	200 U	200 U		
Aroclor-1016	32 U	38 U	38 U		
Aroclor-1221	65 U	77 U	77 U		
Aroclor-1232	32 U	38 U	38 U		
Aroclor-1242	32 U	38 U	38 U		
Aroclor-1248	32 U	38 U	38 U		
Aroclor-1254	32 U	38 U	38 U		
Aroclor-1260	32 U	38 U	38 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses

Samples Received: August 27, 1998

Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample SMH-101-13-SD1 (Lab. #: 80576D1)					
		% Moisture = 13			
Pesticides & PCBs	(Diluted 500X)				
alpha-BHC	1.7 U	980 U	980 U	J qualify	72
beta-BHC	1.7 U	980 U	980 U	J qualify	72
delta-BHC	1.7 U	980 U	980 U	J qualify	72
gamma-BHC (Lindane)	1.7 U	980 U	980 U	J qualify	72
Heptachlor	1.7 U	980 U	980 U	J qualify	72
Aldrin	1.7 U	980 U	980 U	J qualify	72
Heptachlor Epoxide	1.7 U	980 U	980 U	J qualify	72
Endosulfan I	1.7 U	980 U	980 U	J qualify	72
Dieldrin	3.2 U	1900 U	1900 U	J qualify	72
4,4' - DDE	3.2 U	2100	2100		
Endrin	3.2 U	1900 U	1900 U	J qualify	72
Endosulfan II	3.2 U	1900 U	1900 U	J qualify	72
4,4' - DDD	3.2 U	2400 P	2400 P		
Endosulfan Sulfate	3.2 U	1900 U	1900 U	J qualify	72
4,4'-DDT	3.2 U	20000	20000		
Methoxychlor	17 U	9800 U	9800 U	J qualify	72
Endrin Ketone	3.2 U	1900 U	1900 U	J qualify	72
Endrin Aldehyde	3.2 U	1900 U	1900 U	J qualify	72
alpha-Chlordane	1.7 U	980 U	980 U	J qualify	72
gamma-Chlordane	1.7 U	980 U	980 U	J qualify	72
Toxaphene	170 U	98000 U	98000 U	J qualify	72
Aroclor-1016	32 U	19000 U	19000 U	J qualify	72
Aroclor-1221	65 U	39000 U	39000 U	J qualify	72
Aroclor-1232	32 U	19000 U	19000 U	J qualify	72
Aroclor-1242	32 U	19000 U	19000 U	J qualify	72
Aroclor-1248	32 U	19000 U	19000 U	J qualify	72
Aroclor-1254	32 U	19000 U	19000 U	J qualify	72
Aroclor-1260	32 U	19000 U	19000 U	J qualify	72

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample DW-101-12-SD1 (Lab. #: 80575D1)					
		% Moisture = 5			
Pesticides & PCBs	(Diluted 5X)				
alpha-BHC	1.7 U	8.9 U	8.9 U		
beta-BHC	1.7 U	8.9 U	8.9 U		
delta-BHC	1.7 U	8.9 U	8.9 U		
gamma-BHC (Lindane)	1.7 U	8.9 U	8.9 U		
Heptachlor	1.7 U	8.9 U	8.9 U		
Aldrin	1.7 U	8.9 U	8.9 U		
Heptachlor Epoxide	1.7 U	8.9 U	8.9 U		
Endosulfan I	1.7 U	8.9 U	8.9 U		
Dieldrin	3.2 U	17 U	17 U		
4,4'- DDE	3.2 U	170	170		
Endrin	3.2 U	17 U	17 U		
Endosulfan II	3.2 U	17 U	17 U		
4,4' - DDD	3.2 U	780 EP	780 EP	J	qualify 72
Endosulfan Sulfate	3.2 U	17 U	17 U		
4,4'-DDT	3.2 U	1600 E	1600 E	J	qualify 72
Methoxychlor	17 U	89 U	89 U		
Endrin Ketone	3.2 U	17 U	17 U		
Endrin Aldehyde	3.2 U	17 U	17 U		
alpha-Chlordane	1.7 U	16 P	16 P		
gamma-Chlordane	1.7 U	14 P	14 P		
Toxaphene	170 U	895 U	895 U		
Aroclor-1016	32 U	168 U	168 U		
Aroclor-1221	65 U	342 U	342 U		
Aroclor-1232	32 U	168 U	168 U		
Aroclor-1242	32 U	168 U	168 U		
Aroclor-1248	32 U	168 U	168 U		
Aroclor-1254	32 U	168 U	168 U		
Aroclor-1260	32 U	168 U	168 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-12-SD2 (Lab. #: 80575D2)					
	% Moisture = 5				
Pesticides & PCBs	(Diluted 50X)				
alpha-BHC	1.7 U	89 U	89 U	J qualify	72
beta-BHC	1.7 U	89 U	89 U	J qualify	72
delta-BHC	1.7 U	89 U	89 U	J qualify	72
gamma-BHC (Lindane)	1.7 U	89 U	89 U	J qualify	72
Heptachlor	1.7 U	89 U	89 U	J qualify	72
Aldrin	1.7 U	89 U	89 U	J qualify	72
Heptachlor Epoxide	1.7 U	89 U	89 U	J qualify	72
Endosulfan I	1.7 U	89 U	89 U	J qualify	72
Dieldrin	3.2 U	170 U	170 U	J qualify	72
4,4'- DDE	3.2 U	170 U	170 U	J qualify	72
Endrin	3.2 U	170 U	170 U	J qualify	72
Endosulfan II	3.2 U	170 U	170 U	J qualify	72
4,4' - DDD	3.2 U	860 P	860 P		
Endosulfan Sulfate	3.2 U	170 U	170 U	J qualify	72
4,4'-DDT	3.2 U	1700	1700		
Methoxychlor	17 U	890 U	890 U	J qualify	72
Endrin Ketone	3.2 U	170 U	170 U	J qualify	72
Endrin Aldehyde	3.2 U	170 U	170 U	J qualify	72
alpha-Chlordane	1.7 U	89 U	89 U	J qualify	72
gamma-Chlordane	1.7 U	89 U	89 U	J qualify	72
Toxaphene	170 U	8900 U	8900 U	J qualify	72
Aroclor-1016	32 U	1700 U	1700 U	J qualify	72
Aroclor-1221	65 U	3500 U	3500 U	J qualify	72
Aroclor-1232	32 U	1700 U	1700 U	J qualify	72
Aroclor-1242	32 U	1700 U	1700 U	J qualify	72
Aroclor-1248	32 U	1700 U	1700 U	J qualify	72
Aroclor-1254	32 U	1700 U	1700 U	J qualify	72
Aroclor-1260	32 U	1700 U	1700 U	J qualify	72

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample DW-101-1-S (Lab. #: 80573)					
		% Moisture = 4			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.8 U	1.7 U		
beta-BHC	1.7 U	1.8 U	1.7 U		
delta-BHC	1.7 U	1.8 U	1.7 U		
gamma-BHC (Lindane)	1.7 U	1.8 U	1.7 U		
Heptachlor	1.7 U	1.8 U	1.7 U		
Aldrin	1.7 U	1.8 U	1.7 U		
Heptachlor Epoxide	1.7 U	1.8 U	1.7 U		
Endosulfan I	1.7 U	1.8 U	1.7 U		
Dieldrin	3.2 U	3.4 U	3.2 U		
4,4'- DDE	3.2 U	3.4 U	3.2 U		
Endrin	3.2 U	3.4 U	3.2 U		
Endosulfan II	3.2 U	3.4 U	3.2 U		
4,4' - DDD	3.2 U	3.4 U	3.2 U		
Endosulfan Sulfate	3.2 U	3.4 U	3.2 U		
4,4'-DDT	3.2 U	3.4 U	3.2 U		
Methoxychlor	17 U	18 U	17 U		
Endrin Ketone	3.2 U	3.4 U	3.2 U		
Endrin Aldehyde	3.2 U	3.4 U	3.2 U		
alpha-Chlordane	1.7 U	1.8 U	1.7 U		
gamma-Chlordane	1.7 U	1.8 U	1.7 U		
Toxaphene	170 U	180 U	170 U		
Aroclor-1016	32 U	34 U	32 U		
Aroclor-1221	65 U	70 U	65 U		
Aroclor-1232	32 U	34 U	32 U		
Aroclor-1242	32 U	34 U	32 U		
Aroclor-1248	32 U	34 U	32 U		
Aroclor-1254	32 U	34 U	32 U		
Aroclor-1260	32 U	34 U	32 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample DW-101-9-S (Lab. #: 80574)					
		% Moisture = 9			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.9 U	1.9 U		
beta-BHC	1.7 U	1.9 U	1.9 U		
delta-BHC	1.7 U	1.9 U	1.9 U		
gamma-BHC (Lindane)	1.7 U	1.9 U	1.9 U		
Heptachlor	1.7 U	1.9 U	1.9 U		
Aldrin	1.7 U	1.9 U	1.9 U		
Heptachlor Epoxide	1.7 U	1.9 U	1.9 U		
Endosulfan I	1.7 U	1.9 U	1.9 U		
Dieldrin	3.2 U	3.6 U	3.6 U		
4,4'- DDE	3.2 U	3.6 U	3.6 U		
Endrin	3.2 U	3.6 U	3.6 U		
Endosulfan II	3.2 U	3.6 U	3.6 U		
4,4' - DDD	3.2 U	3.6 U	3.6 U		
Endosulfan Sulfate	3.2 U	3.6 U	3.6 U		
4,4'-DDT	3.2 U	3.6 U	3.6 U		
Methoxychlor	17 U	19 U	19 U		
Endrin Ketone	3.2 U	3.6 U	3.6 U		
Endrin Aldehyde	3.2 U	3.6 U	3.6 U		
alpha-Chlordane	1.7 U	1.9 U	1.9 U		
gamma-Chlordane	1.7 U	1.9 U	1.9 U		
Toxaphene	170 U	190 U	190 U		
Aroclor-1016	32 U	36 U	36 U		
Aroclor-1221	65 U	73 U	73 U		
Aroclor-1232	32 U	36 U	36 U		
Aroclor-1242	32 U	36 U	36 U		
Aroclor-1248	32 U	36 U	36 U		
Aroclor-1254	32 U	36 U	36 U		
Aroclor-1260	32 U	36 U	36 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-101-5-S (Lab. #: 80571)					
		% Moisture = 10			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.9 U	1.7 U		
beta-BHC	1.7 U	1.9 U	1.7 U		
delta-BHC	1.7 U	1.9 U	1.7 U		
gamma-BHC (Lindane)	1.7 U	1.9 U	1.7 U		
Heptachlor	1.7 U	1.9 U	1.7 U		
Aldrin	1.7 U	1.9 U	1.7 U		
Heptachlor Epoxide	1.7 U	1.9 U	1.7 U		
Endosulfan I	1.7 U	1.9 U	1.7 U		
Dieldrin	3.2 U	3.6 U	3.2 U		
4,4'- DDE	3.2 U	3.6 U	3.2 U		
Endrin	3.2 U	3.6 U	3.2 U		
Endosulfan II	3.2 U	3.6 U	3.2 U		
4,4' - DDD	3.2 U	3.6 U	3.2 U		
Endosulfan Sulfate	3.2 U	3.6 U	3.2 U		
4,4'-DDT	3.2 U	3.6 U	3.2 U		
Methoxychlor	17 U	19 U	17 U		
Endrin Ketone	3.2 U	3.6 U	3.2 U		
Endrin Aldehyde	3.2 U	3.6 U	3.2 U		
alpha-Chlordane	1.7 U	1.9 U	1.7 U		
gamma-Chlordane	1.7 U	1.9 U	1.7 U		
Toxaphene	170 U	190 U	170 U		
Aroclor-1016	32 U	36 U	32 U		
Aroclor-1221	65 U	74 U	65 U		
Aroclor-1232	32 U	36 U	32 U		
Aroclor-1242	32 U	36 U	32 U		
Aroclor-1248	32 U	36 U	32 U		
Aroclor-1254	32 U	36 U	32 U		
Aroclor-1260	32 U	36 U	32 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-6-S (Lab. #: 80572)					
		% Moisture = 6			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.8 U	1.8 U		
beta-BHC	1.7 U	1.8 U	1.8 U		
delta-BHC	1.7 U	1.8 U	1.8 U		
gamma-BHC (Lindane)	1.7 U	1.8 U	1.8 U		
Heptachlor	1.7 U	1.8 U	1.8 U		
Aldrin	1.7 U	1.8 U	1.8 U		
Heptachlor Epoxide	1.7 U	1.8 U	1.8 U		
Endosulfan I	1.7 U	1.8 U	1.8 U		
Dieldrin	3.2 U	3.5 U	3.5 U		
4,4'- DDE	3.2 U	3.5 U	3.5 U		
Endrin	3.2 U	3.5 U	3.5 U		
Endosulfan II	3.2 U	3.5 U	3.5 U		
4,4' - DDD	3.2 U	3.5 U	3.5 U		
Endosulfan Sulfate	3.2 U	3.5 U	3.5 U		
4,4'-DDT	3.2 U	4.8	4.8		
Methoxychlor	17 U	18 U	18 U		
Endrin Ketone	3.2 U	3.5 U	3.5 U		
Endrin Aldehyde	3.2 U	3.5 U	3.5 U		
alpha-Chlordane	1.7 U	1.8 U	1.8 U		
gamma-Chlordane	1.7 U	1.8 U	1.8 U		
Toxaphene	170 U	180 U	180 U		
Aroclor-1016	32 U	35 U	35 U		
Aroclor-1221	65 U	71 U	71 U		
Aroclor-1232	32 U	35 U	35 U		
Aroclor-1242	32 U	35 U	35 U		
Aroclor-1248	32 U	35 U	35 U		
Aroclor-1254	32 U	35 U	35 U		
Aroclor-1260	32 U	35 U	35 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-8-S (Lab. #: 80570)					
	% Moisture = 15				
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	2.0 U	2.0 U		
beta-BHC	1.7 U	2.0 U	2.0 U		
delta-BHC	1.7 U	2.0 U	2.0 U		
gamma-BHC (Lindane)	1.7 U	2.0 U	2.0 U		
Heptachlor	1.7 U	2.0 U	2.0 U		
Aldrin	1.7 U	2.0 U	2.0 U		
Heptachlor Epoxide	1.7 U	2.0 U	2.0 U		
Endosulfan I	1.7 U	2.0 U	2.0 U		
Dieldrin	3.2 U	3.9 U	3.9 U		
4,4' - DDE	3.2 U	15	15		
Endrin	3.2 U	3.9 U	3.9 U		
Endosulfan II	3.2 U	3.9 U	3.9 U		
4,4' - DDD	3.2 U	340 E	340 E	J qualify	72
Endosulfan Sulfate	3.2 U	3.9 U	3.9 U		
4,4'-DDT	3.2 U	25 P	25 P		
Methoxychlor	17 U	20 U	20 U		
Endrin Ketone	3.2 U	3.9 U	3.9 U		
Endrin Aldehyde	3.2 U	3.9 U	3.9 U		
alpha-Chlordane	1.7 U	7.1	7.1		
gamma-Chlordane	1.7 U	4.7 P	4.7 P		
Toxaphene	170 U	200 U	200 U		
Aroclor-1016	32 U	39 U	39 U		
Aroclor-1221	65 U	79 U	79 U		
Aroclor-1232	32 U	39 U	39 U		
Aroclor-1242	32 U	39 U	39 U		
Aroclor-1248	32 U	39 U	39 U		
Aroclor-1254	32 U	39 U	39 U		
Aroclor-1260	32 U	39 U	39 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-101-8-SD1 (Lab. #: 80570D1)					
		% Moisture = 15			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	20 U	20 U	J qualify	72
beta-BHC	1.7 U	20 U	20 U	J qualify	72
delta-BHC	1.7 U	20 U	20 U	J qualify	72
gamma-BHC (Lindane)	1.7 U	20 U	20 U	J qualify	72
Heptachlor	1.7 U	20 U	20 U	J qualify	72
Aldrin	1.7 U	20 U	20 U	J qualify	72
Heptachlor Epoxide	1.7 U	20 U	20 U	J qualify	72
Endosulfan I	1.7 U	20 U	20 U	J qualify	72
Dieldrin	3.2 U	39 U	39 U	J qualify	72
4,4'- DDE	3.2 U	39 U	39 U	J qualify	72
Endrin	3.2 U	39 U	39 U	J qualify	72
Endosulfan II	3.2 U	39 U	39 U	J qualify	72
4,4' - DDD	3.2 U	350	350		
Endosulfan Sulfate	3.2 U	39 U	39 U	J qualify	72
4,4'-DDT	3.2 U	39 U	39 U	J qualify	72
Methoxychlor	17 U	200 U	200 U	J qualify	72
Endrin Ketone	3.2 U	39 U	39 U	J qualify	72
Endrin Aldehyde	3.2 U	39 U	39 U	J qualify	72
alpha-Chlordane	1.7 U	20 U	20 U	J qualify	72
gamma-Chlordane	1.7 U	20 U	20 U	J qualify	72
Toxaphene	170 U	2000 U	2000 U	J qualify	72
Aroclor-1016	32 U	390 U	390 U	J qualify	72
Aroclor-1221	65 U	790 U	790 U	J qualify	72
Aroclor-1232	32 U	390 U	390 U	J qualify	72
Aroclor-1242	32 U	390 U	390 U	J qualify	72
Aroclor-1248	32 U	390 U	390 U	J qualify	72
Aroclor-1254	32 U	390 U	390 U	J qualify	72
Aroclor-1260	32 U	390 U	390 U	J qualify	72

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-101-10S-S (Lab. #: 80566)					
		% Moisture = 8			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.8 U	1.8 U		
beta-BHC	1.7 U	1.8 U	1.8 U		
delta-BHC	1.7 U	1.8 U	1.8 U		
gamma-BHC (Lindane)	1.7 U	1.8 U	1.8 U		
Heptachlor	1.7 U	1.8 U	1.8 U		
Aldrin	1.7 U	1.8 U	1.8 U		
Heptachlor Epoxide	1.7 U	1.8 U	1.8 U		
Endosulfan I	1.7 U	1.8 U	1.8 U		
Dieldrin	3.2 U	3.5 U	3.5 U		
4,4'- DDE	3.2 U	6.6 P	6.6 P		
Endrin	3.2 U	3.5 U	3.5 U		
Endosulfan II	3.2 U	3.5 U	3.5 U		
4,4' - DDD	3.2 U	15	15		
Endosulfan Sulfate	3.2 U	3.5 U	3.5 U		
4,4'-DDT	3.2 U	15	15		
Methoxychlor	17 U	18 U	18 U		
Endrin Ketone	3.2 U	3.5 U	3.5 U		
Endrin Aldehyde	3.2 U	3.5 U	3.5 U		
alpha-Chlordane	1.7 U	2.7 P	2.7 P		
gamma-Chlordane	1.7 U	2.8 P	2.8 P		
Toxaphene	170 U	180 U	180 U		
Aroclor-1016	32 U	36 U	36 U		
Aroclor-1221	65 U	73 U	73 U		
Aroclor-1232	32 U	36 U	36 U		
Aroclor-1242	32 U	36 U	36 U		
Aroclor-1248	32 U	36 U	36 U		
Aroclor-1254	32 U	36 U	36 U		
Aroclor-1260	32 U	36 U	36 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample DW-101-2-S (Lab. #: 80568)					
		% Moisture = 10			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.9 U	1.7 U		
beta-BHC	1.7 U	1.9 U	1.7 U		
delta-BHC	1.7 U	1.9 U	1.7 U		
gamma-BHC (Lindane)	1.7 U	1.9 U	1.7 U		
Heptachlor	1.7 U	1.9 U	1.7 U		
Aldrin	1.7 U	1.9 U	1.7 U		
Heptachlor Epoxide	1.7 U	1.9 U	1.7 U		
Endosulfan I	1.7 U	1.9 U	1.7 U		
Dieldrin	3.2 U	3.7 U	3.2 U		
4,4'- DDE	3.2 U	3.7 U	3.2 U		
Endrin	3.2 U	3.7 U	3.2 U		
Endosulfan II	3.2 U	3.7 U	3.2 U		
4,4' - DDD	3.2 U	3.7 U	3.2 U		
Endosulfan Sulfate	3.2 U	3.7 U	3.2 U		
4,4'-DDT	3.2 U	3.7 U	3.2 U		
Methoxychlor	17 U	19 U	17 U		
Endrin Ketone	3.2 U	3.7 U	3.2 U		
Endrin Aldehyde	3.2 U	3.7 U	3.2 U		
alpha-Chlordane	1.7 U	1.9 U	1.7 U		
gamma-Chlordane	1.7 U	1.9 U	1.7 U		
Toxaphene	170 U	190 U	170 U		
Aroclor-1016	32 U	37 U	32 U		
Aroclor-1221	65 U	75 U	65 U		
Aroclor-1232	32 U	37 U	32 U		
Aroclor-1242	32 U	37 U	32 U		
Aroclor-1248	32 U	37 U	32 U		
Aroclor-1254	32 U	37 U	32 U		
Aroclor-1260	32 U	37 U	32 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-3-S (Lab. #: 80564)					
		% Moisture = 5			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.8 U	1.8 U		
beta-BHC	1.7 U	1.8 U	1.8 U		
delta-BHC	1.7 U	1.8 U	1.8 U		
gamma-BHC (Lindane)	1.7 U	1.8 U	1.8 U		
Heptachlor	1.7 U	1.8 U	1.8 U		
Aldrin	1.7 U	1.8 U	1.8 U		
Heptachlor Epoxide	1.7 U	1.8 U	1.8 U		
Endosulfan I	1.7 U	1.8 U	1.8 U		
Dieldrin	3.2 U	3.5 U	3.5 U		
4,4'- DDE	3.2 U	3.5 U	3.5 U		
Endrin	3.2 U	3.5 U	3.5 U		
Endosulfan II	3.2 U	3.5 U	3.5 U		
4,4' - DDD	3.2 U	3.5 U	3.5 U		
Endosulfan Sulfate	3.2 U	3.5 U	3.5 U		
4,4'-DDT	3.2 U	3.5 U	3.5 U		
Methoxychlor	17 U	18 U	18 U		
Endrin Ketone	3.2 U	3.5 U	3.5 U		
Endrin Aldehyde	3.2 U	3.5 U	3.5 U		
alpha-Chlordane	1.7 U	1.8 U	1.8 U		
gamma-Chlordane	1.7 U	1.8 U	1.8 U		
Toxaphene	170 U	180 U	180 U		
Aroclor-1016	32 U	35 U	35 U		
Aroclor-1221	65 U	71 U	71 U		
Aroclor-1232	32 U	35 U	35 U		
Aroclor-1242	32 U	35 U	35 U		
Aroclor-1248	32 U	35 U	35 U		
Aroclor-1254	32 U	35 U	35 U		
Aroclor-1260	32 U	35 U	35 U		

Data Validation Summary Table
For the Frost Street Sites

Soil Pesticide and PCB Analyses
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample DW-101-4-S (Lab. #: 80565)					
		% Moisture = 6			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.8 U	1.8 U		
beta-BHC	1.7 U	1.8 U	1.8 U		
delta-BHC	1.7 U	1.8 U	1.8 U		
gamma-BHC (Lindane)	1.7 U	1.8 U	1.8 U		
Heptachlor	1.7 U	1.8 U	1.8 U		
Aldrin	1.7 U	1.8 U	1.8 U		
Heptachlor Epoxide	1.7 U	1.8 U	1.8 U		
Endosulfan I	1.7 U	1.8 U	1.8 U		
Dieldrin	3.2 U	3.5 U	3.5 U		
4,4'- DDE	3.2 U	3.5 U	3.5 U		
Endrin	3.2 U	3.5 U	3.5 U		
Endosulfan II	3.2 U	3.5 U	3.5 U		
4,4' - DDD	3.2 U	3.5 U	3.5 U		
Endosulfan Sulfate	3.2 U	28	28		
4,4'-DDT	3.2 U	3.5 U	3.5 U		
Methoxychlor	17 U	18 U	18 U		
Endrin Ketone	3.2 U	3.5 U	3.5 U		
Endrin Aldehyde	3.2 U	12	12		
alpha-Chlordane	1.7 U	1.8 U	1.8 U		
gamma-Chlordane	1.7 U	1.8 U	1.8 U		
Toxaphene	170 U	180 U	180 U		
Aroclor-1016	32 U	35 U	35 U		
Aroclor-1221	65 U	71 U	71 U		
Aroclor-1232	32 U	35 U	35 U		
Aroclor-1242	32 U	35 U	35 U		
Aroclor-1248	32 U	35 U	35 U		
Aroclor-1254	32 U	35 U	35 U		
Aroclor-1260	32 U	35 U	35 U		

Analyte Resolution

All percent resolutions were greater than 60% on both the RTX-5 and DB1701 columns.

Performance Evaluation Mixtures

All percent resolutions were greater than 90% on both the DB-608 and DB-1701 columns.

The relative percent difference of the calculated amount and the true amount for each of the single component pesticides and surrogates in the PEMs must be less than or equal to 25%. This requirement was satisfied in all of the PEM standards in this sample delivery group.

No other problems were found with any of the performance evaluation mixtures.

Continuing Calibrations - IND A & IND B

All percent resolutions were greater than 90% on both the DB-608 and DB-1701 columns.

The relative percent difference of the calculated amount and the true amount for each of the single component pesticides and surrogates in the IND A and IND B standards must be less than or equal to 25%.

No problems were detected with the continuing calibrations.

Surrogate Retention Times

All surrogate retention times were within the required limits for both surrogates and on both columns.

Florisil Cartridge Check

All recoveries were within the 80% - 120% quality assurance limits.

GPC Calibration

No problems were detected with the GPC calibrations.

Method Blanks

No compounds were detected in any of the method blanks.

Calibration Blanks

No compounds were detected in any of the calibration blanks.

Field Blanks

A field blank was not collected with this sample delivery group.

Instrument Detection Limits

The instrument detection limits appeared to have been analyzed one month beyond the NYS DEC ASP 6 month limit.

Sample Results

Several of the samples were reanalyzed at a dilution due to high concentrations of DDE, DDT and/or DDT. The concentrations which are not to be used in the final reporting were flagged with the "J" qualifier and footnoted with #72 in the data validation summary table.

No other problems were detected with any of the samples

DATA VALIDATION SUMMARY

No significant problems were found with the analyses of these samples which would affect the end use of the data.



Nancy J. Potak
December 14, 1998

Holding Times

All extractions and analyses were performed within the required holding times.

Surrogate Recoveries

All surrogate recoveries were within the required quality assurance limits with the following exceptions:

	TCX 1	TCX 2	DCB 1	DCB 2
DW-101-12-SD			152%	184%
DW-101-3-S			165%	168%
DW-101-4-S		207%		187%
DW-101-11-S				272%

The recoveries of both surrogates were above the quality assurance limit in samples DW-101-4-S. All of the pesticide and PCB data were flagged with the "J" qualifier and footnoted with #83 in the data validation summary table.

The other four samples only had the recovery of one surrogate outside of the quality assurance limits. The EPA data validation guidelines do not require the data to be qualified for high recoveries of one surrogate compound.

Matrix Spike

Sample DW-101-10A-S (Lab. #: 80566) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Initial Calibrations

The percent RSD of DCB (22%) was above the 20% quality assurance limit in the DB-608 column initial calibration. The data were not required to be qualified for the high DCB % RSD.

The percent RSD of each of the single component pesticides must be less than 20%. The percent RSD of the two surrogates must be less than or equal to 30%. Up to two single compound target compounds per column may exceed the 20% limit for the %RSD, but those compounds must have a percent RSD of less than or equal to 30.0%. All of these requirements were met in the initial calibration.

The NYS DEC required concentrations did not appear to have been used for the INDH standard.

No other problems were detected with the initial calibrations.

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS1

Tune File ID: R5521

Calibration File ID: R5523

Initial Calibration File ID: R5509

Associated Samples: DW-101-5-S, DW-101-1-S, DW-101-9-S, DW-101-12-S, DW-101-11-S, DW-101-13-S

Acceptable: yes

Date: 09/10/98

Date: 09/09/98

Time Requirements Met: yes

Page: 1108

Page: 1049

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	26%	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%:

Footnote:

Footnote: 15

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For the Frost Street Sites**

Soil Pesticide and PCB Analyses - Method 95-3

Samples Received: August 27, 1998

Sample Delivery Group: G7851

Laboratory Reference Numbers:

DW-101-3-S	80564
DW-101-4-S	80565
DW-101-10A-S	80566
DW-101-10A-SMS	80566MS
DW-101-10A-SMSD	80566MSD
DW-101-2-S	80568
DW-101-7-S	80569
DW-101-8-S	80570
DW-101-8-SDL	80570DL
DW-101-5-S	80571
DW-101-6-S	80572
DW-101-1-S	80573
DW-101-9-S	80574
DW-101-12-S	80575
DW-101-12-SDL1	80575DL1
DW-101-12-SDL2	80575DL2
SMH-101-13-S	80576
SMH-101-13-SDL	80576DL
DW-101-11-S	80577

Soil samples were received for analyses of the pesticide and PCB TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- Data Completeness
- * - Holding Times
- * - Laboratory Blanks
 - Field Blanks
 - Surrogate Recoveries
- * - Surrogate Retention Times
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
 - Calibrations
- * - Analyte Resolutions
- * - Performance Evaluation Mixtures
 - IND A and IND B Standards
- * - Florisil Cartridge Check
- * - GPC Calibration
- * - Compound Identification
- * - Method Detection Limit

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 27 1999

* - Indicates that all criteria were met for this parameter.

For Hazardous Waste Section

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 1 of 2)**

Instrument ID: XBNAMS1

Tune File ID: R5507

Calibration File ID: R5509

Initial Calibration File ID: R5509

Associated Samples: DW-101-10A-S, DW-101-10A-SMS, DW-101-10A-SMSD, DW-101-2-S, DW-101-7-S, DW-101-8-S, DW-101-6-S

Acceptable: yes

Date: 09/09/98

Date: 09/09/98

Time Requirements Met: yes

Page: 1106a (1/20 resubmission)

Page: 1049

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: Naphthalene
PPB

Fluorene

50 2381338/1689505 * 0.800 = 1.128

1957708/1113441 * 0.800 = 1.407

PERCENT DIFFERENCE:

$$(1.012 - 1.128) / 1.012 * 100 = -11.462451$$

$$(1.127 - 1.407) / 1.127 * 100 = -24.84472$$

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY**
(Page 1 of 2)

Instrument ID: XBNAMS1

Tune File ID: R5507

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: R5509

Date: 09/09/98

Page: 1049

Associated Samples: DW-101-10A-S, DW-101-10A-SMS, DW-101-10A-SMSD, DW-101-2-S, DW-101-7-S, DW-101-8-S, DW-101-6-S, DW-101-5-S, DW-101-1-S, DW-101-9-S, DW-101-12-S, DW-101-11-S, DW-101-13-S

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether*	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	23%	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	20.6%	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF >QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: no

Footnote: 15

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = A_{is}/A_x * C_{is}/C_s)$$

Compound:
PPB

Phenol

Benzo(b)fluoranthene

20	538913/461369 * 2.000 = 2.336
50	1311643/432166 * 0.800 = 2.428
80	2115656/483515 * 0.500 = 2.188
120	2607734/484355 * 0.333 = 1.793
160	2936181/486126 * 0.250 = 1.510

787811/1155082 * 2.000 = 1.364
1769253/935569 * 0.800 = 1.513
3520502/1086378 * 0.500 = 1.620
6191093/1054615 * 0.333 = 1.955
8822411/1035703 * 0.250 = 2.130

AV. RRF = 2.051 %RSD = 18.9%

AV. RRF = 1.717 %RSD = 18.5%

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS1

Tune File ID: R5471

Calibration File ID: R5472

Initial Calibration File ID: R5424

Associated Samples: SBLKSB241A, SBLKSB242, 4570BS, DW-101-3-S, DW-101-4-S

Acceptable: yes

Date: 09/08/98

Date: 09/02/98

Time Requirements Met: yes

Page: 1098

Page: 1000

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 2 of 2)

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: 2-Chloronaphthalene
 PPB

Pyrene

50 1314003/983731 * 0.800 = 1.069

1785218/823618 * 0.800 = 1.734

PERCENT DIFFERENCE:

$$(1.004 - 1.068) / 1.004 * 100 = -6.374502$$

$$(1.404 - 1.734) / 1.404 * 100 = -23.504274$$

METHOD BLANK: SBLKSB241A (Page 1138)

This method blank was associated with the analyses of the remaining samples.

Compound	ppb	<CRDL
Unknown Aldol Condensate (9.33)	3200AJ	NA
Unknown Aldol Condensate (10.08)	26000AJ	NA
Unknown (10.78)	170J	NA
Unknown Aldol Condensate (11.39)	2100AJ	NA
Unknown (12.22)	200J	NA
Unknown Aldol Condensate (12.52)	230 AJ	NA
Unknown (12.74)	71J	NA
Unknown Aldol Condensate (12.80)	300AJ	NA

METHOD BLANK: SBLKSB242 (Page 1156)

This method blank was associated with the analyses of samples DW-101-3-S, DW-101-4-S and DW-101-10A-S

Compound	ppb	<CRDL
Unknown Aldol Condensate (9.25)	2200AJ	NA
Unknown Aldol Condensate (10.02)	18000AJ	NA
Unknown (10.76)	110J	NA
Unknown Aldol Condensate (11.37)	1500AJ	NA
Unknown (12.20)	110J	NA
Unknown Aldol Condensate (12.51)	170AJ	NA
Unknown Aldol Condensate (12.79)	180AJ	NA
Unknown (17.13)	71J	NA
Unknown Amide (23.97)	72J	NA
Unknown Amide (26.71)	230J	NA

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 1 of 2)**

Instrument ID: XBNAMS1

Tune File ID: R5423

Initial Calibration File ID: R5424

Associated Samples: SBLKSB241A, SBLKSB242, 4570BS, DW-101-3-S, DW-101-4-S

Acceptable: yes

Date: 09/02/98

Time Requirements Met: yes

Page: 1000

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether*	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	21%	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: no

Footnote: 15

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	2-Chloronaphthalene	4-Chlorophenyl-phenylether
PPB		
20	$754977/1203043 * 2.000 = 1.255$	$338322/1203043 * 2.000 = 0.562$
50	$1755485/1278445 * 0.800 = 1.098$	$739807/1278445 * 0.800 = 0.463$
80	$2606617/1335517 * 0.500 = 0.976$	$1046614/1335517 * 0.500 = 0.392$
120	$3396073/1284018 * 0.333 = 0.881$	$1466093/1284018 * 0.333 = 0.380$
160	$4000548/1234330 * 0.250 = 0.810$	$1865564/1234330 * 0.250 = 0.378$
AV. RRF = 1.004	%RSD = 17.6 %	AV. RRF = 0.435 %RSD = 18.2%

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812	Method	Lab.	QA		
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
Sample / Analyte	(PPB)	(PPB)	Conc.	Qualifiers	Footnotes
			Decision		
Sample DW-101-11-S (Lab. #: 80577)					
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.14)	3,200 AJ	2,500 JAB	2,450 JAB	negate	1, 64
Unknown Aldol Condensate (9.92)	2,600 AJ	5,400 JAB	5,359 JAB	negate	1, 64
Unknown Aldol Condensate (11.32)	2,100 AJ	3,300 JAB	3,215 JAB	negate	1, 64
C15H12 PAH (21.39)	ND	530 J	536 J		
C17H12 PAH (23.47)	ND	420 J	383 J		
C17H12 PAH (23.58)	ND	290 J	306 J		
C17H12 PAH (23.64)	ND	320 J	306 J		
C17H10O Ketone (24.31)	ND	380 J	383 J		
Benzn(b)Naphthothiophene Iso (24.50)	ND	240 J	230 J		
Unknown (24.60)	ND	610 J	612 J		
C17H10 Ketone (24.67)	ND	460 J	459 J		
Unknown (25.21)	ND	270 J	306 J		
Unknown (25.30)	ND	670 J	689 J		
Unknown (25.35)	ND	290 J	306 J		
Unknown (25.41)	ND	360 J	383 J		
Unknown (25.45)	ND	240 J	230 J		
Unknown (25.85)	ND	260 J	230 J		
Unknown (26.07)	ND	290 J	306 J		
Unknown (26.80)	ND	690 J	689 J		
C20H12 PAH (27.70)	ND	560 J	536 J		
C20H12 PAH (28.68)	ND	730 J	689 J		
Unknown (30.62)	ND	1,800 J	1,761 J		
Unknown (31.96)	ND	1,300 J	1,301 J		

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: July 10th through 16th, 1998

Sample Delivery Group: F4072

Laboratory Reference Numbers:

DW-15 S-1	70691
DW-15 S-1MS	70691MS
DW-15 S-1MSD	70691MSD
DW-10 S-1	70699
DW-16 SWA	71804
DW-16 SWB	71805
DW-16 SWBMS	71805MS
DW-16 SWBMSD	71805MSD

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA		
	Method	Lab.	Validation		
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.	Qualifiers	Footnotes
Sample / Analyte	(PPB)	(PPB)	Decision		
Sample SMH-101-13-S (Lab. #: 80576)					
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.04)	3,200 AJ	4,400 AJB	4,210 AJB	negate	1, 64
Unknown Aldol Condensate (9.79)	26,000 AJ	82,000 AJB	80,379 AJB	negate	1, 64
Unknown Aldol Condensate (11.29)	2,100 AJ	4,000 AJB	3,828 AJB	negate	1, 64
Unknown (15.68)	ND	1,100 J	1,148 J		
C15H12 PAH (21.39)	ND	860 J	766 J		
C15H10 / C15H12 PAHS (21.54)	ND	1,100 J	1,148 J		
C16H10 PAH (22.69)	ND	1,300 J	1,148 J		
Unknown (23.05)	ND	1,600 J	1,531 J		
C17H12 PAH (23.47)	ND	790 J	766 J		
M,P'-DDD (23.62)	ND	6,000 NJ	6,124 NJ		
O,P'-DDT (23.66)	ND	1,100 NJ	1,148 NJ		
P,P'-DDD (24.12)	ND	6,200 NJ	6,124 NJ		
C18H10 PAH (24.58)	ND	780 J	766 J		
Unknown (26.07)	ND	1,000 J	1,148 J		
C20H12 PAH (28.36)	ND	5,300 J	5,359 J		
Unknown (30.59)	ND	8,700 J	8,421 J		
Unknown (31.91)	ND	4,900 J	4,976 J		

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: August 27, 1998

Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA			
	Method	Lab.	Validation		
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.		
Sample / Analyte	(PPB)	(PPB)	Decision	Qualifiers	Footnotes
Sample DW-101-11-S (Lab. #: 80577)					
TCL Semivolatile Organics		(Diluted 2X)			
		% Moisture = 13			
Phenol	330 U	31 J	31 J		
bis(2-Chloroethyl)Ether	330 U	760 U	766 U		
2-Chlorophenol	330 U	760 U	766 U		
1,3-Dichlorobenzene	330 U	760 U	766 U		
1,4-Dichlorobenzene	330 U	760 U	766 U		
1,2-Dichlorobenzene	330 U	760 U	766 U		
2-Methylphenol	330 U	760 U	766 U		
bis(2-Chloroisopropyl)ether	330 U	760 U	766 U		
4-Methylphenol	330 U	20 J	15 J		
N-Nitroso-di-n-propylamine	330 U	760 U	766 U		
Hexachloroethane	330 U	760 U	766 U		
Nitrobenzene	330 U	760 U	766 U		
Isophorone	330 U	760 U	766 U		
2-Nitrophenol	330 U	760 U	766 U		
2,4-Dimethylphenol	330 U	760 U	766 U		
bis(2-Chloroethoxy)methane	330 U	760 U	766 U		
2,4-Dichlorophenol	330 U	760 U	766 U		
1,2,4-Trichlorobenzene	330 U	760 U	766 U		
Naphthalene	330 U	60 J	61 J		
4-Chloroaniline	330 U	760 U	766 U		
Hexachlorobutadiene	330 U	760 U	766 U		
4-Chloro-3-methylphenol	330 U	760 U	766 U		
2-Methylnaphthalene	330 U	17 J	15 J		
Hexachlorocyclopentadiene	330 U	760 U	766 U		
2,4,6-Trichlorophenol	330 U	760 U	766 U		
2,4,5-Trichlorophenol	800 U	1,800 U	1,914 U		
2-Chloronaphthalene	330 U	760 U	766 U		
2-Nitroaniline	800 U	1,800 U	1,914 U		
Dimethylphthalate	330 U	760 U	766 U		
Acenaphthylene	330 U	1,100	1,072		
2,6-Dinitrotoluene	330 U	760 U	766 U		
3-Nitroaniline	800 U	1,800 U	1,914 U		
Acenaphthene	330 U	16 J	15 J		
2,4-Dinitrophenol	800 U	1,800 U	1,914 U		
4-Nitrophenol	330 U	760 U	766 U		
Dibenzofuran	330 U	36 J	38 J		
2,4-Dinitrotoluene	330 U	760 U	766 U		
Diethylphthalate	330 U	760 U	766 U		
4-Chlorophenyl-phenylether	330 U	760 U	766 U		
Fluorene	330 U	54 J	54 J	qualify	15
4-Nitroaniline	800 U	1,800 U	1,914 U		
4,6-Dinitro-2-methylphenol	800 U	1,800 U	1,914 U		
N-Nitrosodiphenylamine (1)	330 U	760 U	766 U		
4-Bromophenyl-phenylether	330 U	760 U	766 U		
Hexachlorobenzene	330 U	760 U	766 U		
Pentachlorophenol	800 U	1,800 U	1,914 U		
Phenanthrene	330 U	1,800	1,761		
Anthracene	330 U	820	842		
Carbazole	330 U	170 J	153 J		
Di-n-Butylphthalate	330 U	810	766		
Fluoranthene	330 U	4,800	4,823		
Pyrene	330 U	3,400	3,368	J	qualify
Butylbenzylphthalate	330 U	140 J	153 J		15
3,3'-Dichlorobenzidine	330 U	760 U	766 U		
Benzo(a)anthracene	330 U	1,900	1,914		
Chrysene	330 U	2,700	2,679		
Bis(2-Ethylhexyl)phthalate	330 U	1,300	1,378		
Di-n-octylphthalate	330 U	760 U	766 U		
Benzo(b)fluoranthene	330 U	3,500	3,445		
Benzo(k)fluoranthene	330 U	1,300	1,225		
Benzo(a)pyrene	330 U	1,700	1,684		
Indeno(1,2,3-cd)pyrene	330 U	860	842	J	qualify
Dibenz(a,h)anthracene	330 U	200 J	153 J		15
Benzo(g,h,i)perylene	330 U	550 J	536 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812	Method	Lab.	QA		
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.		
Sample / Analyte	(PPB)	(PPB)	Decision	Qualifiers	Footnotes
Sample DW-101-12-S (Lab. #: 80575)					
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.01)	3,200 AJ	3,300 JAB	3,505 JAB		
Unknown Aldol Condensate (9.73)	26,000 AJ	68,000 JAB	68,353 JAB		
Unknown Aldol Condensate (11.28)	2,100 AJ	3,700 JAB	3,505 JAB		
Unknown (12.11)	ND	4,000 J	3,505 J		
Unknown Alkane (12.22)	ND	3,300 J	3,505 J		
Unknown Alkane (12.64)	ND	7,200 J	7,011 J		
Unknown Alkane (12.95)	ND	6,000 J	6,134 J		
Trimethylbenzene Isomer (13.03)	ND	3,900 J	3,505 J		
Unknown (13.40)	ND	7,200 J	7,011 J		
Unknown (13.51)	ND	4,200 J	4,382 J		
Unknown (13.59)	ND	7,600 J	7,887 J		
C10H14 Aromatic (13.84)	ND	9,100 J	8,763 J		
Unknown Alkane (13.94)	ND	11,000 J	11,392 J		
Unknown (14.03)	ND	6,700 J	7,011 J		
Unknown Alkane (14.10)	ND	3,000 J	2,629 J		
C11H16 Aromatic (14.14)	ND	4,800 J	5,258 J		
Unknown (14.21)	ND	200 J	3,505 J		
Unknown Alkane / Unknown (14.26)	ND	4,000 J	4,382 J		
Unknown (14.43)	ND	2,800 J	2,629 J		
Unknown (14.49)	ND	3,500 J	3,505 J		
Unknown (14.63)	ND	2,800 J	2,629 J		
C10H14 Aromatic (14.67)	ND	4,000 J	3,505 J		
Unknown Alkane (15.07)	ND	4,000 J	3,505 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA			
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Reported Conc. Decision		
Sample SMH-101-13-S (Lab. #: 80576)					
TCL Semivolatile Organics		(Diluted 10X)			
		% Moisture = 13			
Phenol	330 U	77 J	77 J		
bis(2-Chloroethyl)Ether	330 U	3,800 U	3,828 U		
2-Chlorophenol	330 U	3,800 U	3,828 U		
1,3-Dichlorobenzene	330 U	3,800 U	3,828 U		
1,4-Dichlorobenzene	330 U	3,800 U	3,828 U		
1,2-Dichlorobenzene	330 U	3,800 U	3,828 U		
2-Methylphenol	330 U	3,800 U	3,828 U		
bis(2-Chloroisopropyl)ether	330 U	3,800 U	3,828 U		
4-Methylphenol	330 U	53 J	3,828 J		
N-Nitroso-di-n-propylamine	330 U	3,800 U	3,828 U		
Hexachloroethane	330 U	3,800 U	3,828 U		
Nitrobenzene	330 U	3,800 U	3,828 U		
Isophorone	330 U	3,800 U	3,828 U		
2-Nitrophenol	330 U	3,800 U	3,828 U		
2,4-Dimethylphenol	330 U	3,800 U	3,828 U		
bis(2-Chloroethoxymethane	330 U	3,800 U	3,828 U		
2,4-Dichlorophenol	330 U	3,800 U	3,828 U		
1,2,4-Trichlorobenzene	330 U	3,800 U	3,828 U		
Naphthalene	330 U	140 J	153 J		
4-Chloroaniline	330 U	3,800 U	3,828 U		
Hexachlorobutadiene	330 U	3,800 U	3,828 U		
4-Chloro-3-methylphenol	330 U	3,800 U	3,828 U		
2-Methylnaphthalene	330 U	40 J	38 J		
Hexachlorocyclopentadiene	330 U	3,800 U	3,828 U		
2,4,6-Trichlorophenol	330 U	3,800 U	3,828 U		
2,4,5-Trichlorophenol	800 U	9,200 U	9,569 U		
2-Chloronaphthalene	330 U	3,800 U	3,828 U		
2-Nitroaniline	800 U	9,200 U	9,569 U		
Dimethylphthalate	330 U	3,800 U	3,828 U		
Acenaphthylene	330 U	2,500 J	2,679 J		
2,6-Dinitrotoluene	330 U	3,800 U	3,828 U		
3-Nitroaniline	800 U	9,200 U	9,569 U		
Acenaphthene	330 U	3,800 U	3,828 U		
2,4-Dinitrophenol	800 U	9,200 U	9,569 U		
4-Nitrophenol	330 U	3,800 U	3,828 U		
Dibenzofuran	330 U	94 J	77 J		
2,4-Dinitrotoluene	330 U	3,800 U	3,828 U		
Diethylphthalate	330 U	3,800 U	3,828 U		
4-Chlorophenyl-phenylether	330 U	3,800 U	3,828 U		
Fluorene	330 U	190 J	191 J	qualify	15
4-Nitroaniline	800 U	9,200 U	9,569 U		
4,6-Dinitro-2-methylphenol	800 U	9,200 U	9,569 U		
N-Nitrosodiphenylamine (1)	330 U	3,800 U	3,828 U		
4-Bromophenyl-phenylether	330 U	3,800 U	3,828 U		
Hexachlorobenzene	330 U	3,800 U	3,828 U		
Pentachlorophenol	800 U	9,200 U	9,569 U		
Phenanthrene	330 U	5,000	4,976		
Anthracene	330 U	1,400 J	1,531 J		
Carbazole	330 U	480 J	383 J		
Di-n-Butylphthalate	330 U	3,800 U	3,828 U		
Fluoranthene	330 U	16,000	16,076		
Pyrene	330 U	8,300	8,421	J	qualify 15
Butylbenzylphthalate	330 U	3,800 U	3,828 U		
3,3'-Dichlorobenzidine	330 U	3,800 U	3,828 U		
Benzo(a)anthracene	330 U	5,000	4,976		
Chrysene	330 U	6,300	6,124		
Bis(2-Ethylhexyl)phthalate	330 U	850 J	766 J		
Di-n-octylphthalate	330 U	3,800 U	3,828 U		
Benzo(b)fluoranthene	330 U	9,400	9,186		
Benzo(k)fluoranthene	330 U	3,300 J	3,445 J		
Benzo(a)pyrene	330 U	48,000	4,593		
indeno(1,2,3-cd)pyrene	330 U	1,500 J	1,531 J	qualify	15
Dibenz(a,h)anthracene	330 U	440 J	383 J		
Benzo(g,h,i)perylene	330 U	990 J	766 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA		
	Method	Lab.	Validation		
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.	Qualifiers	Footnotes
Sample / Analyte	(PPB)	(PPB)	Decision		
Sample DW-101-9-S (Lab. #: 80574)					
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.12)	3,200 AJ	1,800 AJB	1,830 AJB	negate	1, 64
Unknown Aldol Condensate (9.91)	26,000 AJ	4,300 AJB	4,245 AJB	negate	1, 64
Unknown Aldol Condensate (11.31)	2,100 AJ	2,600 AJB	2,562 AJB	negate	1, 64
Unknown Alkane (20.99)	ND	540 J	512 J		
Unknown Alkane (21.68)	ND	680 J	659 J		
Unknown Alkane (22.15)	ND	610 J	585 J		
Unknown (22.26)	ND	290 J	293 J		
Unknown Alkane (22.33)	ND	980 J	951 J		
Unknown (22.52)	ND	410 J	439 J		
Unknown Alkane (22.56)	ND	500 J	512 J		
Unknown (22.80)	ND	290 J	293 J		
Unknown Alkane (22.95)	ND	610 J	585 J		
Unknown (23.30)	ND	320 J	293 J		
Unknown (23.55)	ND	760 J	732 J		
Unknown (23.62)	ND	490 J	512 J		
Unknown (23.75)	ND	800 J	805 J		
Unknown (23.89)	ND	380 J	366 J		
Unknown (24.13)	ND	550 J	585 J		
Unknown (24.64)	ND	140 J	146 J		
Unknown (25.51)	ND	350 J	366 J		
Unknown (26.24)	ND	800 J	805 J		
Unknown (27.07)	ND	180 J	146 J		
Unknown (31.90)	ND	160 J	146 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample / Analyte		Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-12-S (Lab. #: 80575)						
TCL Semivolatile Organics		(Diluted 25X)				
		% Moisture = 5				
Phenol	330 U	8,600 U	8,763 U			
bis(2-Chloroethyl)Ether	330 U	8,600 U	8,763 U			
2-Chlorophenol	330 U	8,600 U	8,763 U			
1,3-Dichlorobenzene	330 U	8,600 U	8,763 U			
1,4-Dichlorobenzene	330 U	8,600 U	8,763 U			
1,2-Dichlorobenzene	330 U	8,600 U	8,763 U			
2-Methylphenol	330 U	8,600 U	8,763 U			
bis(2-Chloroisopropyl)ether	330 U	8,600 U	8,763 U			
4-Methylphenol	330 U	8,600 U	8,763 U			
N-Nitroso-di-n-propylamine	330 U	8,600 U	8,763 U			
Hexachloroethane	330 U	8,600 U	8,763 U			
Nitrobenzene	330 U	8,600 U	8,763 U			
Isophorone	330 U	8,600 U	8,763 U			
2-Nitrophenol	330 U	8,600 U	8,763 U			
2,4-Dimethylphenol	330 U	8,600 U	8,763 U			
bis(2-Chloroethoxy)methane	330 U	8,600 U	8,763 U			
2,4-Dichlorophenol	330 U	8,600 U	8,763 U			
1,2,4-Trichlorobenzene	330 U	8,600 U	8,763 U			
Naphthalene	330 U	8,600 U	8,763 U			
4-Chloroaniline	330 U	8,600 U	8,763 U			
Hexachlorobutadiene	330 U	8,600 U	8,763 U			
4-Chloro-3-methylphenol	330 U	8,600 U	8,763 U			
2-Methylnaphthalene	330 U	8,600 U	8,763 U			
Hexachlorocyclopentadiene	330 U	8,600 U	8,763 U			
2,4,6-Trichlorophenol	330 U	8,600 U	8,763 U			
2,4,5-Trichlorophenol	800 U	21,000 U	21,908 U			
2-Chloronaphthalene	330 U	8,600 U	8,763 U			
2-Nitroaniline	800 U	21,000 U	21,908 U			
Dimethylphthalate	330 U	8,600 U	8,763 U			
Acenaphthylene	330 U	8,600 U	8,763 U			
2,6-Dinitrotoluene	330 U	8,600 U	8,763 U			
3-Nitroaniline	800 U	21,000 U	21,908 U			
Acenaphthene	330 U	8,600 U	8,763 U			
2,4-Dinitrophenol	800 U	21,000 U	21,908 U			
4-Nitrophenol	330 U	8,600 U	8,763 U			
Dibenzofuran	330 U	8,600 U	8,763 U			
2,4-Dinitrotoluene	330 U	8,600 U	8,763 U			
Diethylphthalate	330 U	8,600 U	8,763 U			
4-Chlorophenyl-phenylether	330 U	8,600 U	8,763 U			
Fluorene	330 U	8,600 U	8,763 U	J	qualify	15
4-Nitroaniline	800 U	21,000 U	21,908 U			
4,6-Dinitro-2-methylphenol	800 U	21,000 U	21,908 U			
N-Nitrosodiphenylamine (1)	330 U	8,600 U	8,763 U			
4-Bromophenyl-phenylether	330 U	8,600 U	8,763 U			
Hexachlorobenzene	330 U	8,600 U	8,763 U			
Pentachlorophenol	800 U	21,000 U	21,908 U			
Phenanthrene	330 U	8,600 U	8,763 U			
Anthracene	330 U	8,600 U	8,763 U			
Carbazole	330 U	8,600 U	8,763 U			
Di-n-Butylphthalate	330 U	8,600 U	8,763 U			
Fluoranthene	330 U	8,600 U	8,763 U			
Pyrene	330 U	8,600 U	8,763 U	J	qualify	15
Butylbenzylphthalate	330 U	8,600 U	8,763 U			
3,3'-Dichlorobenzidine	330 U	8,600 U	8,763 U			
Benzo(a)anthracene	330 U	8,600 U	8,763 U			
Chrysene	330 U	8,600 U	8,763 U			
Bis(2-Ethylhexyl)phthalate	330 U	8,600 U	8,763 U			
Di-n-octylphthalate	330 U	8,600 U	8,763 U			
Benzo(b)fluoranthene	330 U	8,600 U	8,763 U			
Benzo(k)fluoranthene	330 U	8,600 U	8,763 U			
Benzo(a)pyrene	330 U	8,600 U	8,763 U			
Indeno(1,2,3-cd)pyrene	330 U	8,600 U	8,763 U	J	qualify	15
Dibenz(a,h)anthracene	330 U	8,600 U	8,763 U			
Benzo(g,h,i)perylene	330 U	8,600 U	8,763 U			

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Page 18

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA		Qualifiers	Footnotes
Sample / Analyte	Method	Lab.	Validation			
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.			
	(PPB)	(PPB)	Decision			
Sample DW-101-6-S (Lab. #: 80572)						
Non-Target Semivolatile Organics						
Unknown Aldol Condensate (9.25)	3,200 AJ	1,900 AJB	1,949 AJB	negate	1, 64	
Unknown Aldol Condensate (10.02)	26,000 AJ	1,500 AJB	1,462 AJB	negate	1, 64	
Unknown Aldol Condensate (10.75)	170 AJ	110 AJB	104 AJB	negate	1, 64	
Unknown Aldol Condensate (11.35)	2,100 AJ	1,600 AJB	1,601 AJB	negate	1, 64	
Unknown Aldol Condensate (12.50)	230 AJ	130 AJB	139 AJB	negate	1, 64	
Unknown Aldol Condensate (12.77)	300 AJ	130 AJB	139 AJB	negate	1, 64	
Unknown Alkane (24.11)	ND	87 J	70 J			
Unknown Alkane (24.66)	ND	78 J	70 J			
Unknown Alkane (25.27)	ND	94 J	104 J			
Unknown Alkane (25.96)	ND	67 J	70 J			
Unknown Alkane (26.76)	ND	100 J	104 J			

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA			
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.		
	(PPB)	(PPB)	Decision		
Sample DW-101-9-S (Lab. #: 80574)					
TCL Semivolatile Organics		(Diluted 2X)			
		% Moisture = 9			
Phenol	330 U	720 U	732 U		
bis(2-Chloroethyl)Ether	330 U	720 U	732 U		
2-Chlorophenol	330 U	720 U	732 U		
1,3-Dichlorobenzene	330 U	720 U	732 U		
1,4-Dichlorobenzene	330 U	720 U	732 U		
1,2-Dichlorobenzene	330 U	720 U	732 U		
2-Methylphenol	330 U	720 U	732 U		
bis(2-Chloroisopropyl)ether	330 U	720 U	732 U		
4-Methylphenol	330 U	720 U	732 U		
N-Nitroso-di-n-propylamine	330 U	720 U	732 U		
Hexachloroethane	330 U	720 U	732 U		
Nitrobenzene	330 U	720 U	732 U		
Isophorone	330 U	720 U	732 U		
2-Nitrophenol	330 U	720 U	732 U		
2,4-Dimethylphenol	330 U	720 U	732 U		
bis(2-Chloroethoxy)methane	330 U	720 U	732 U		
2,4-Dichlorophenol	330 U	720 U	732 U		
1,2,4-Trichlorobenzene	330 U	720 U	732 U		
Naphthalene	330 U	720 U	732 U		
4-Chloroaniline	330 U	720 U	732 U		
Hexachlorobutadiene	330 U	720 U	732 U		
4-Chloro-3-methylphenol	330 U	720 U	732 U		
2-Methylnaphthalene	330 U	720 U	732 U		
Hexachlorocyclopentadiene	330 U	720 U	732 U		
2,4,6-Trichlorophenol	330 U	720 U	732 U		
2,4,5-Trichlorophenol	800 U	1,800 U	1,830 U		
2-Chloronaphthalene	330 U	720 U	732 U		
2-Nitroaniline	800 U	1,800 U	1,830 U		
Dimethylphthalate	330 U	720 U	732 U		
Acenaphthylene	330 U	720 U	732 U		
2,6-Dinitrotoluene	330 U	720 U	732 U		
3-Nitroaniline	800 U	1,800 U	1,830 U		
Acenaphthene	330 U	720 U	732 U		
2,4-Dinitrophenol	800 U	1,800 U	1,830 U		
4-Nitrophenol	330 U	720 U	732 U		
Dibenzofuran	330 U	720 U	732 U		
2,4-Dinitrotoluene	330 U	720 U	732 U		
Diethylphthalate	330 U	720 U	732 U		
4-Chlorophenyl-phenylether	330 U	720 U	732 U		
Fluorene	330 U	720 U	732 U	J	qualify
4-Nitroaniline	800 U	1,800 U	1,830 U		15
4,6-Dinitro-2-methylphenol	800 U	1,800 U	1,830 U		
N-Nitrosodiphenylamine (1)	330 U	720 U	732 U		
4-Bromophenyl-phenylether	330 U	720 U	732 U		
Hexachlorobenzene	330 U	720 U	732 U		
Pentachlorophenol	800 U	1,800 U	1,830 U		
Phenanthrene	330 U	73 J	73 J		
Anthracene	330 U	720 U	732 U		
Carbazole	330 U	720 U	732 U		
Di-n-Butylphthalate	330 U	720 U	732 U		
Fluoranthene	330 U	140 J	146 J		
Pyrene	330 U	120 J	146 J		qualify
Butylbenzylphthalate	330 U	720 U	732 U		15
3,3'-Dichlorobenzidine	330 U	720 U	732 U		
Benzo(a)anthracene	330 U	42 J	44 J		
Chrysene	330 U	110 J	146 J		
Bis(2-Ethylhexyl)phthalate	330 U	650 J	659 J		
Di-n-octylphthalate	330 U	720 U	732 U		
Benzo(b)fluoranthene	330 U	97 J	73 J		
Benzo(k)fluoranthene	330 U	25 J	22 J		
Benzo(a)pyrene	330 U	38 J	37 J		
Indeno(1,2,3-cd)pyrene	330 U	29 J	29 J		qualify
Dibenz(a,h)anthracene	330 U	720 U	732 U		15
Benzo(g,h,i)perylene	330 U	34 J	37 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-1-S (Lab. #: 80573)					
Non-Target Semivolatile Organics					
Unknown (8.39)	ND	1,700 J	1,777 J		
Unknown Aldol Condensate (9.04)	3,200 AJ	3,300 AJB	3,199 AJB	negate	1, 64
Unknown (9.32)	ND	590 J	533 J		
Unknown (9.52)	ND	730 J	711 J		
Unknown Aldol Condensate (9.81)	26,000 AJ	57,000 AJB	56,870 AJB	negate	1, 64
Unknown Aldol Condensate (11.29)	2,100 AJ	2,900 AJB	2,843 AJB	negate	1, 64
Ethane, 1,1,2,2-Tetrachloro- (11.41)	ND	440 J	355 J	negate	58
Unknown (14.07)	ND	490 J	533 J		
Unknown (15.68)	ND	780 J	711 J		
Unknown (28.16)	ND	480 J	533 J		
Unknown (28.37)	ND	400 J	355 J		
Unknown (28.89)	ND	440 J	355 J		
Unknown (30.54)	ND	3,300 J	3,199 J		
Unknown (31.85)	ND	1,600 J	1,599 J		
Unknown (33.65)	ND	1,100 J	1,066 J		
Unknown (33.91)	ND	820 J	889 J		

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: August 27, 1998

Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA				
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes	
	Blank Conc. (PPB)	Reported Conc. (PPB)	Reported Conc. Decision			
Sample DW-101-6-S (Lab. #: 80572)						
TCL Semivolatile Organics		(Undiluted)	% Moisture = 4			
Phenol	330 U	340 U	348 U			
bis(2-Chloroethyl)Ether	330 U	340 U	348 U			
2-Chlorophenol	330 U	340 U	348 U			
1,3-Dichlorobenzene	330 U	340 U	348 U			
1,4-Dichlorobenzene	330 U	340 U	348 U			
1,2-Dichlorobenzene	330 U	340 U	348 U			
2-Methylphenol	330 U	340 U	348 U			
bis(2-Chloroisopropyl)ether	330 U	340 U	348 U			
4-Methylphenol	330 U	340 U	348 U			
N-Nitroso-di-n-propylamine	330 U	340 U	348 U			
Hexachloroethane	330 U	340 U	348 U			
Nitrobenzene	330 U	340 U	348 U			
Isophorone	330 U	340 U	348 U			
2-Nitrophenol	330 U	340 U	348 U			
2,4-Dimethylphenol	330 U	340 U	348 U			
bis(2-Chloroethoxy)methane	330 U	340 U	348 U			
2,4-Dichlorophenol	330 U	340 U	348 U			
1,2,4-Trichlorobenzene	330 U	340 U	348 U			
Naphthalene	330 U	340 U	348 U			
4-Chloroaniline	330 U	340 U	348 U			
Hexachlorobutadiene	330 U	340 U	348 U			
4-Chloro-3-methylphenol	330 U	340 U	348 U			
2-Methylnaphthalene	330 U	340 U	348 U			
Hexachlorocyclopentadiene	330 U	340 U	348 U			
2,4,6-Trichlorophenol	330 U	340 U	348 U			
2,4,5-Trichlorophenol	800 U	830 U	870 U			
2-Chloronaphthalene	330 U	340 U	348 U			
2-Nitroaniline	800 U	830 U	870 U			
Dimethylphthalate	330 U	340 U	348 U			
Acenaphthylene	330 U	340 U	348 U			
2,6-Dinitrotoluene	330 U	340 U	348 U			
3-Nitroaniline	800 U	830 U	870 U			
Acenaphthene	330 U	340 U	348 U			
2,4-Dinitrophenol	800 U	830 U	870 U			
4-Nitrophenol	330 U	340 U	348 U			
Dibenzofuran	330 U	340 U	348 U			
2,4-Dinitrotoluene	330 U	340 U	348 U			
Diethylphthalate	330 U	340 U	348 U			
4-Chlorophenyl-phenylether	330 U	340 U	348 U			
Fluorene	330 U	340 U	348 U	J	qualify	15
4-Nitroaniline	800 U	830 U	870 U			
4,6-Dinitro-2-methylphenol	800 U	830 U	870 U			
N-Nitrosodiphenylamine (1)	330 U	340 U	348 U			
4-Bromophenyl-phenylether	330 U	340 U	348 U			
Hexachlorobenzene	330 U	340 U	348 U			
Pentachlorophenol	800 U	830 U	870 U			
Phenanthrene	330 U	340 U	348 U			
Anthracene	330 U	340 U	348 U			
Carbazole	330 U	340 U	348 U			
Di-n-Butylphthalate	330 U	340 U	348 U			
Fluoranthene	330 U	340 U	348 U			
Pyrene	330 U	340 U	348 U			
Butylbenzylphthalate	330 U	340 U	348 U			
3,3'-Dichlorobenzidine	330 U	340 U	348 U			
Benzo(a)anthracene	330 U	340 U	348 U			
Chrysene	330 U	340 U	348 U			
Bis(2-Ethylhexyl)phthalate	330 U	340 U	348 U			
Di-n-octylphthalate	330 U	340 U	348 U			
Benzo(b)fluoranthene	330 U	340 U	348 U			
Benzo(k)fluoranthene	330 U	340 U	348 U			
Benzo(a)pyrene	330 U	340 U	348 U			
Indeno(1,2,3-cd)pyrene	330 U	340 U	348 U	J	qualify	15
Dibenz(a,h)anthracene	330 U	340 U	348 U			
Benzo(g,h,i)perylene	330 U	340 U	348 U			

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA				
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes	
	Blank Conc. (PPB)	Reported Conc. (PPB)	Reported Conc. Decision			
Sample DW-101-5-S (Lab. #: 80571)						
TCL Semivolatile Organics		(Undiluted)	% Moisture = 10			
Phenol	330 U	4 J	4 J			
bis(2-Chloroethyl)Ether	330 U	360 U	370 U			
2-Chlorophenol	330 U	360 U	370 U			
1,3-Dichlorobenzene	330 U	360 U	370 U			
1,4-Dichlorobenzene	330 U	360 U	370 U			
1,2-Dichlorobenzene	330 U	360 U	370 U			
2-Methylphenol	330 U	360 U	370 U			
bis(2-Chloroisopropyl)ether	330 U	360 U	370 U			
4-Methylphenol	330 U	360 U	370 U			
N-Nitroso-di-n-propylamine	330 U	360 U	370 U			
Hexachloroethane	330 U	360 U	370 U			
Nitrobenzene	330 U	360 U	370 U			
Isophorone	330 U	360 U	370 U			
2-Nitrophenol	330 U	360 U	370 U			
2,4-Dimethylphenol	330 U	360 U	370 U			
bis(2-Chloroethoxy)methane	330 U	360 U	370 U			
2,4-Dichlorophenol	330 U	360 U	370 U			
1,2,4-Trichlorobenzene	330 U	360 U	370 U			
Naphthalene	330 U	360 U	370 U			
4-Chloroaniline	330 U	360 U	370 U			
Hexachlorobutadiene	330 U	360 U	370 U			
4-Chloro-3-methylphenol	330 U	360 U	370 U			
2-Methylnaphthalene	330 U	360 U	370 U			
Hexachlorocyclopentadiene	330 U	360 U	370 U			
2,4,6-Trichlorophenol	330 U	360 U	370 U			
2,4,5-Trichlorophenol	800 U	890 U	925 U			
2-Chloronaphthalene	330 U	360 U	370 U			
2-Nitroaniline	800 U	890 U	925 U			
Dimethylphthalate	330 U	360 U	370 U			
Acenaphthylene	330 U	360 U	370 U			
2,6-Dinitrotoluene	330 U	360 U	370 U			
3-Nitroaniline	800 U	890 U	925 U			
Acenaphthene	330 U	360 U	370 U			
2,4-Dinitrophenol	800 U	890 U	925 U			
4-Nitrophenol	330 U	360 U	370 U			
Dibenzofuran	330 U	360 U	370 U			
2,4-Dinitrotoluene	330 U	360 U	370 U			
Diethylphthalate	330 U	360 U	370 U			
4-Chlorophenyl-phenylether	330 U	360 U	370 U			
Fluorene	330 U	360 U	370 U	J	qualify	15
4-Nitroaniline	800 U	890 U	925 U			
4,6-Dinitro-2-methylphenol	800 U	890 U	925 U			
N-Nitrosodiphenylamine (1)	330 U	360 U	370 U			
4-Bromophenyl-phenylether	330 U	360 U	370 U			
Hexachlorobenzene	330 U	360 U	370 U			
Pentachlorophenol	800 U	890 U	925 U			
Phenanthrene	330 U	16 J	15 J			
Anthracene	330 U	360 U	370 U			
Carbazole	330 U	360 U	370 U			
Di-n-Butylphthalate	330 U	360 U	370 U			
Fluoranthene	330 U	38 J	37 J			
Pyrene	330 U	28 J	30 J		qualify	15
Butylbenzylphthalate	330 U	360 U	370 U			
3,3'-Dichlorobenzidine	330 U	360 U	370 U			
Benzo(a)anthracene	330 U	15 J	15 J			
Chrysene	330 U	18 J	19 J			
Bis(2-Ethylhexyl)phthalate	330 U	190 J	185 J			
Di-n-octylphthalate	330 U	360 U	370 U			
Benzo(b)fluoranthene	330 U	35 J	33 J			
Benzo(k)fluoranthene	330 U	11 J	11 J			
Benzo(a)pyrene	330 U	17 J	19 J			
Indeno(1,2,3-cd)pyrene	330 U	17 J	19 J		qualify	15
Dibenz(a,h)anthracene	330 U	360 U	370 U			
Benzo(g,h,i)perylene	330 U	20 J	19 J			

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA			
	Method	Lab.	Validation			
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.		Qualifiers	Footnotes
Sample / Analyte	(PPB)	(PPB)	Decision			
Sample DW-101-5-S (Lab. #: 80571)						
Non-Target Semivolatile Organics						
Unknown Aldol Condensate (9.16)	3,200 AJ	1,600 AJB	1,628 AJB		negate	1
Unknown Aldol Condensate (9.95)	23,000 AJ	2,900 AJB	2,886 AJB		negate	1
Unknown (10.71)	170 J	140 J	148 J	B	negate	1
Unknown Aldol Condensate (11.32)	2,100 AJ	2,200 AJB	2,183 AJB		negate	1
Unknown (12.16)	200 J	130 J	111 J	B	negate	1
Unknown Aldol Condensate (12.46)	230 AJ	220 AJB	222 AJB		negate	1
Unknown Aldol Condensate (12.75)	300 AJ	200 AJB	185 AJB		negate	1
Unknown (24.58)	ND	87 J	74 J			
Unknown (25.26)	ND	100 J	111 J			
Unknown (28.88)	ND	77 J	74 J			
Unknown (30.51)	ND	190 J	185 J			
Unknown (31.19)	ND	120 J	111 J			
Unknown (31.81)	ND	160 J	148 J			
Unknown (33.59)	ND	140 J	148 J			
Unknown (35.28)	ND	100 J	111 J			

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA	
	Method	Lab.	Validation
	Blank	Reported	Reported
	Conc.	Conc.	Conc.
Sample / Analyte	(PPB)	(PPB)	Decision
Qualifiers			
Footnotes			
Sample DW-101-8-S (Lab. #: 80570)			
TCL Semivolatile Organics		(Diluted 5X)	% Moisture = 15
Phenol	330 U	1,900 U	1,959 U
bis(2-Chloroethyl)Ether	330 U	1,900 U	1,959 U
2-Chlorophenol	330 U	1,900 U	1,959 U
1,3-Dichlorobenzene	330 U	1,900 U	1,959 U
1,4-Dichlorobenzene	330 U	1,900 U	1,959 U
1,2-Dichlorobenzene	330 U	1,900 U	1,959 U
2-Methylphenol	330 U	1,900 U	1,959 U
bis(2-Chloroisopropyl)ether	330 U	1,900 U	1,959 U
4-Methylphenol	330 U	1,900 U	1,959 U
N-Nitroso-di-n-propylamine	330 U	1,900 U	1,959 U
Hexachloroethane	330 U	1,900 U	1,959 U
Nitrobenzene	330 U	1,900 U	1,959 U
Isophorone	330 U	1,900 U	1,959 U
2-Nitrophenol	330 U	1,900 U	1,959 U
2,4-Dimethylphenol	330 U	1,900 U	1,959 U
bis(2-Chloroethoxy)methane	330 U	1,900 U	1,959 U
2,4-Dichlorophenol	330 U	1,900 U	1,959 U
1,2,4-Trichlorobenzene	330 U	1,900 U	1,959 U
Naphthalene	330 U	130 J	137 J
4-Chloroaniline	330 U	1,900 U	1,959 U
Hexachlorobutadiene	330 U	1,900 U	1,959 U
4-Chloro-3-methylphenol	330 U	1,900 U	1,959 U
2-Methylnaphthalene	330 U	460 J	392 J
Hexachlorocyclopentadiene	330 U	1,900 U	1,959 U
2,4,6-Trichlorophenol	330 U	1,900 U	1,959 U
2,4,5-Trichlorophenol	800 U	4,700 U	4,897 U
2-Chloronaphthalene	330 U	1,900 U	1,959 U
2-Nitroaniline	800 U	4,700 U	4,897 U
Dimethylphthalate	330 U	1,900 U	1,959 U
Acenaphthylene	330 U	1,900 U	1,959 U
2,6-Dinitrotoluene	330 U	1,900 U	1,959 U
3-Nitroaniline	800 U	4,700 U	4,897 U
Acenaphthene	330 U	1,900 U	1,959 U
2,4-Dinitrophenol	800 U	4,700 U	4,897 U
4-Nitrophenol	330 U	1,900 U	1,959 U
Dibenzofuran	330 U	1,900 U	1,959 U
2,4-Dinitrotoluene	330 U	1,900 U	1,959 U
Diethylphthalate	330 U	1,900 U	1,959 U
4-Chlorophenyl-phenylether	330 U	1,900 U	1,959 U
Fluorene	330 U	1,900 U	1,959 U
4-Nitroaniline	800 U	4,700 U	4,897 U
4,6-Dinitro-2-methylphenol	800 U	4,700 U	4,897 U
N-Nitrosodiphenylamine (1)	330 U	1,900 U	1,959 U
4-Bromophenyl-phenylether	330 U	1,900 U	1,959 U
Hexachlorobenzene	330 U	1,900 U	1,959 U
Pentachlorophenol	800 U	4,700 U	4,897 U
Phenanthrene	330 U	62 J	59 J
Anthracene	330 U	1,900 U	1,959 U
Carbazole	330 U	1,900 U	1,959 U
Di-n-Butylphthalate	330 U	1,900 U	1,959 U
Fluoranthene	330 U	90 J	78 J
Pyrene	330 U	65 J	59 J
Butylbenzylphthalate	330 U	640 J	588 J
3,3'-Dichlorobenzidine	330 U	1,900 U	1,959 U
Benzo(a)anthracene	330 U	43 J	39 J
Chrysene	330 U	55 J	59 J
Bis(2-Ethylhexyl)phthalate	330 U	1,400 J	1,371 J
Di-n-octylphthalate	330 U	260 J	196 J
Benzo(b)fluoranthene	330 U	84 J	78 J
Benzo(k)fluoranthene	330 U	26 J	20 J
Benzo(a)pyrene	330 U	49 J	39 J
Indeno(1,2,3-cd)pyrene	330 U	1,900 U	1,959 U
Dibenz(a,h)anthracene	330 U	1,900 U	1,959 U
Benzo(g,h,i)perylene	330 U	1,900 U	1,959 U

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812		QA			
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Reported Conc. Decision		
Sample DW-101-B-S (Lab. #: 80570)					
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.07)	3,200 AJ	2,500 AJB	2,546 AJB	negate	1
Unknown Aldol Condensate (9.83)	26,000 AJ	47,000 AJB	47,012 AJB	negate	1
Unknown Aldol Condensate (11.31)	2,100 AJ	2,300 AJB	2,351 AJB	negate	1
Unknown Alkane (12.08)	ND	580 J	588 J		
Ethylmethemethylbenzene Isomer (12.12)	ND	770 J	784 J		
Trimethylbenzene Isomer (12.25)	ND	950 J	979 J		
Trimethylbenzene Isomer (12.64)	ND	1,400 J	1,371 J		
Trimethylbenzene Isomer (13.04)	ND	520 J	588 J		
Methylpropylbenzene Isomer (13.42)	ND	1,300 J	1,175 J		
C10H14 Aromatic (13.49)	ND	1,600 J	1,567 J		
Unknown Alkane (13.52)	ND	730 J	784 J		
Unknown Alkane / Unknown PAH (13.61)	ND	760 J	784 J		
C10H14 Aromatic (13.85)	ND	1,300 J	1,175 J		
C10H14 Aromatic (14.26)	ND	480 J	392 J		
Tetramethylbenzene Isomer (14.30)	ND	720 J	784 J		
Unknown (14.65)	ND	550 J	588 J		
Unknown (14.68)	ND	970 J	979 J		
Unknown (14.73)	ND	450 J	392 J		
Unknown (15.77)	ND	430 J	392 J		
Unknown (19.60)	ND	550 J	588 J		
Unknown (22.62)	ND	600 J	588 J		
Unknown (30.62)	ND	880 J	784 J		
Unknown (31.92)	ND	1,400 J	1,371 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA			
	Method	Lab.	Validation			
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.		Qualifiers	Footnotes
Sample / Analyte	(PPB)	(PPB)	Decision			
Sample DW-101-2-S (Lab. #: 80568)						
Non-Target Semivolatile Organics						
Unknown Aldol Condensate (9.19)	3,200 AJ	1,300 AJB	1,299 AJB		negate	1
Unknown Aldol Condensate (9.97)	26,000 AJ	2,400 AJB	2,450 AJB		negate	1
Unknown (10.74)	170 J	110 J	111 J	B	negate	1
Unknown Aldol Condensate (11.35)	2,100 AJ	1,600 AJB	1,633 AJB		negate	1
Unknown (12.19)	200 J	110 J	111 J	B	negate	1
Unknown Aldol Condensate (12.49)	230 AJ	150 AJB	148 AJB		negate	1
Unknown Aldol Condensate (12.77)	300 AJ	190 AJB	186 AJB		negate	1
Unknown (25.74)	ND	320 J	297 J		negate	1

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851	Method	Lab.	QA		
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
Sample / Analyte	(PPB)	(PPB)	Conc.	Qualifiers	Footnotes
			Decision		
Sample DW-101-7-S (Lab. #: 80569)					
TCL Semivolatile Organics	(Undiluted)				
		% Moisture = 14			
Phenol	330 U	14 J	16 J		
bis(2-Chloroethyl)Ether	330 U	380 U	389 U		
2-Chlorophenol	330 U	380 U	389 U		
1,3-Dichlorobenzene	330 U	380 U	389 U		
1,4-Dichlorobenzene	330 U	380 U	389 U		
1,2-Dichlorobenzene	330 U	380 U	389 U		
2-Methylphenol	330 U	380 U	389 U		
bis(2-Chloroisopropyl)ether	330 U	380 U	389 U		
4-Methylphenol	330 U	10 J	8 J		
N-Nitroso-di-n-propylamine	330 U	380 U	389 U		
Hexachloroethane	330 U	380 U	389 U		
Nitrobenzene	330 U	380 U	389 U		
Isophorone	330 U	380 U	389 U		
2-Nitrophenol	330 U	380 U	389 U		
2,4-Dimethylphenol	330 U	380 U	389 U		
bis(2-Chloroethoxy)methane	330 U	380 U	389 U		
2,4-Dichlorophenol	330 U	380 U	389 U		
1,2,4-Trichlorobenzene	330 U	380 U	389 U		
Naphthalene	330 U	380 U	389 U		
4-Chloroaniline	330 U	380 U	389 U		
Hexachlorobutadiene	330 U	380 U	389 U		
4-Chloro-3-methylphenol	330 U	380 U	389 U		
2-Methylnaphthalene	330 U	380 U	389 U		
Hexachlorocyclopentadiene	330 U	380 U	389 U		
2,4,6-Trichlorophenol	330 U	380 U	389 U		
2,4,5-Trichlorophenol	800 U	940 U	971 U		
2-Chloronaphthalene	330 U	380 U	389 U		
2-Nitroaniline	800 U	940 U	971 U		
Dimethylphthalate	330 U	380 U	389 U		
Acenaphthylene	330 U	5 J	4 J		
2,6-Dinitrotoluene	330 U	380 U	389 U		
3-Nitroaniline	800 U	940 U	971 U		
Acenaphthene	330 U	4 J	4 J		
2,4-Dinitrophenol	800 U	940 U	971 U		
4-Nitrophenol	330 U	380 U	389 U		
Dibenzofuran	330 U	380 U	389 U		
2,4-Dinitrotoluene	330 U	380 U	389 U		
Diethylphthalate	330 U	380 U	389 U		
4-Chlorophenyl-phenylether	330 U	380 U	389 U		
Fluorene	330 U	8 J	8 J	qualify	15
4-Nitroaniline	800 U	940 U	971 U		
4,6-Dinitro-2-methylphenol	800 U	940 U	971 U		
N-Nitrosodiphenylamine (1)	330 U	380 U	389 U		
4-Bromophenyl-phenylether	330 U	380 U	389 U		
Hexachlorobenzene	330 U	380 U	389 U		
Pentachlorophenol	800 U	940 U	971 U		
Phenanthrene	330 U	100 J	117 J		
Anthracene	330 U	11 J	12 J		
Carbazole	330 U	16 J	16 J		
Di-n-Butylphthalate	330 U	76 J	78 J		
Fluoranthene	330 U	290 J	272 J		
Pyrene	330 U	230 J	233 J		
Butylbenzylphthalate	330 U	150 J	155 J		
3,3'-Dichlorobenzidine	330 U	380 U	389 U		
Benzo(a)anthracene	330 U	110 J	117 J		
Chrysene	330 U	130 J	117 J		
Bis(2-Ethylhexyl)phthalate	330 U	2,000	1,981		
Di-n-octylphthalate	330 U	2,900	2,875		
Benzo(b)fluoranthene	330 U	210 J	194 J		
Benzo(k)fluoranthene	330 U	61 J	78 J		
Benzo(a)pyrene	330 U	110 J	117 J		
Indeno(1,2,3-cd)pyrene	330 U	55 J	39 J	qualify	15
Dibenz(a,h)anthracene	330 U	380 U	389 U		
Benzo(g,h,i)perylene	330 U	44 J	39 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812	Method	Lab.	QA		
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
	(PPB)	(PPB)	Conc.		
Sample / Analyte			Decision	Qualifiers	Footnotes
Sample DW-101-10A-S (Lab. #: 80566)					
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.29)	2,200 AJ	1,800 AJB	1,846 AJB	negate	1, 64
Unknown Aldol Condensate (10.03)	18,000 AJ	14,000 AJB	13,392 AJB	negate	1, 64
Unknown Aldol Condensate (11.36)	1,500 AJ	2,400 AJB	2,389 AJB	negate	1, 64
Unknown Aldol Condensate (12.49)	170 AJ	250 AJB	253 AJB	negate	1, 64
C15H12 PAH (21.40)	ND	220 J	217 J		
C15H10/C15H12 PAHS (21.55)	ND	200 J	181 J		
C17H12 PAH (23.48)	ND	290 J	290 J		
C17H12 PAH (23.59)	ND	200 J	181 J		
Unknown (24.12)	ND	190 J	181 J		
Unknown (24.51)	ND	220 J	217 J		
Unknown (24.56)	ND	180 J	181 J		
C18H10 PAH (24.61)	ND	300 J	290 J		
Unknown (24.68)	ND	490 J	471 J		
Unknown (26.00)	ND	350 J	362 J		
Unknown (26.08)	ND	540 J	181 J		
Unknown (26.82)	ND	360 J	362 J		
Unknown (27.64)	ND	220 J	217 J		
C20H12 PAH (27.71)	ND	330 J	326 J		
Unknown (27.79)	ND	250 J	253 J		
C20H12 PAH (28.26)	ND	1,100 J	1,086 J		
Unknown (30.33)	ND	600 J	579 J		
Unknown (30.66)	ND	830 J	833 J		
Unknown (32.00)	ND	710 J	724 J		
Unknown (33.84)	ND	430 J	471 J		

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		Method	Lab.	QA		
		Blank	Reported	Validation		
		Conc.	Conc.	Reported		
Sample / Analyte		(PPB)	(PPB)	Conc.	Qualifiers	Footnotes
				Decision		
Sample DW-101-2-S (Lab. #: 80568)						
TCL Semivolatile Organics		(Undiluted)				
			% Moisture = 10			
Phenol	330 U	370 U	371 U			
bis(2-Chloroethyl)Ether	330 U	370 U	371 U			
2-Chlorophenol	330 U	370 U	371 U			
1,3-Dichlorobenzene	330 U	370 U	371 U			
1,4-Dichlorobenzene	330 U	370 U	371 U			
1,2-Dichlorobenzene	330 U	370 U	371 U			
2-Methylphenol	330 U	370 U	371 U			
bis(2-Chloroisopropyl)ether	330 U	370 U	371 U			
4-Methylphenol	330 U	370 U	371 U			
N-Nitroso-di-n-propylamine	330 U	370 U	371 U			
Hexachloroethane	330 U	370 U	371 U			
Nitrobenzene	330 U	370 U	371 U			
Isophorone	330 U	370 U	371 U			
2-Nitrophenol	330 U	370 U	371 U			
2,4-Dimethylphenol	330 U	370 U	371 U			
bis(2-Chloroethoxy)methane	330 U	370 U	371 U			
2,4-Dichlorophenol	330 U	370 U	371 U			
1,2,4-Trichlorobenzene	330 U	370 U	371 U			
Naphthalene	330 U	370 U	371 U			
4-Chloroaniline	330 U	370 U	371 U			
Hexachlorobutadiene	330 U	370 U	371 U			
4-Chloro-3-methylphenol	330 U	370 U	371 U			
2-Methylnaphthalene	330 U	370 U	371 U			
Hexachlorocyclopentadiene	330 U	370 U	371 U			
2,4,6-Trichlorophenol	330 U	370 U	371 U			
2,4,5-Trichlorophenol	800 U	890 U	928 U			
2-Chloronaphthalene	330 U	370 U	371 U			
2-Nitroaniline	800 U	890 U	928 U			
Dimethylphthalate	330 U	370 U	371 U			
Acenaphthylene	330 U	370 U	371 U			
2,6-Dinitrotoluene	330 U	370 U	371 U			
3-Nitroaniline	800 U	890 U	928 U			
Acenaphthene	330 U	370 U	371 U			
2,4-Dinitrophenol	800 U	890 U	928 U			
4-Nitrophenol	330 U	370 U	371 U			
Dibenzofuran	330 U	370 U	371 U			
2,4-Dinitrotoluene	330 U	370 U	371 U			
Diethylphthalate	330 U	370 U	371 U			
4-Chlorophenyl-phenylether	330 U	370 U	371 U			
Fluorene	330 U	370 U	371 U	J	qualify	15
4-Nitroaniline	800 U	890 U	928 U			
4,6-Dinitro-2-methylphenol	800 U	890 U	928 U			
N-Nitrosodiphenylamine (1)	330 U	370 U	371 U			
4-Bromophenyl-phenylether	330 U	370 U	371 U			
Hexachlorobenzene	330 U	370 U	371 U			
Pentachlorophenol	800 U	890 U	928 U			
Phenanthrene	330 U	370 U	371 U			
Anthracene	330 U	370 U	371 U			
Carbazole	330 U	370 U	371 U			
Di-n-Butylphthalate	330 U	370 U	371 U			
Fluoranthene	330 U	10 J	11 J			
Pyrene	330 U	7 J	7 J			
Butylbenzylphthalate	330 U	370 U	371 U			
3,3'-Dichlorobenzidine	330 U	370 U	371 U			
Benzo(a)anthracene	330 U	4 J	4 J			
Chrysene	330 U	5 J	4 J			
Bis(2-Ethylhexyl)phthalate	330 U	48 J	37 J			
Di-n-octylphthalate	330 U	370 U	371 U			
Benzo(b)fluoranthene	330 U	5 J	4 J			
Benzo(k)fluoranthene	330 U	4 J	4 J			
Benzo(a)pyrene	330 U	5 J	4 J			
Indeno(1,2,3-cd)pyrene	330 U	370 U	371 U	J	qualify	15
Dibenz(a,h)anthracene	330 U	370 U	371 U			
Benzo(g,h,i)perylene	330 U	370 U	371 U			

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Page 4

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812		QA				
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes	
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.			
	(PPB)	(PPB)	Decision			
Sample DW-101-4-S (Lab. #: 80565)						
Non-Target Semivolatile Organics						
Unknown (13.07)	ND	870 J	886 J			
Unknown (15.38)	ND	1,300 J	1,240 J			
Unknown (15.79)	ND	440 J	354 J			
Unknown (18.20)	ND	1,600 J	1,594 J			
Unknown (19.80)	ND	600 J	531 J			
Unknown (20.87)	ND	550 J	531 J			

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA			
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.		
	(PPB)	(PPB)	Decision		
Sample DW-101-10A-S (Lab. #: 80566)					
TCL Semivolatile Organics		(Undiluted)	% Moisture = 8		
Phenol	330 U	12 J	7 J		
bis(2-Chloroethyl)Ether	330 U	360 U	362 U		
2-Chlorophenol	330 U	360 U	362 U		
1,3-Dichlorobenzene	330 U	360 U	362 U		
1,4-Dichlorobenzene	330 U	360 U	362 U		
1,2-Dichlorobenzene	330 U	360 U	362 U		
2-Methylphenol	330 U	360 U	362 U		
bis(2-Chloroisopropyl)ether	330 U	360 U	362 U		
4-Methylphenol	330 U	7 J	7 J		
N-Nitroso-di-n-propylamine	330 U	360 U	362 U		
Hexachloroethane	330 U	360 U	362 U		
Nitrobenzene	330 U	360 U	362 U		
Isophorone	330 U	360 U	362 U		
2-Nitrophenol	330 U	360 U	362 U		
2,4-Dimethylphenol	330 U	360 U	362 U		
bis(2-Chloroethoxy)methane	330 U	360 U	362 U		
2,4-Dichlorophenol	330 U	360 U	362 U		
1,2,4-Trichlorobenzene	330 U	360 U	362 U		
Naphthalene	330 U	25 J	25 J		
4-Chloroaniline	330 U	360 U	362 U		
Hexachlorobutadiene	330 U	360 U	362 U		
4-Chloro-3-methylphenol	330 U	360 U	362 U		
2-Methylnaphthalene	330 U	10 J	11 J		
Hexachlorocyclopentadiene	330 U	360 U	362 U		
2,4,6-Trichlorophenol	330 U	360 U	362 U		
2,4,5-Trichlorophenol	800 U	870 U	905 U		
2-Chloronaphthalene	330 U	360 U	362 U		
2-Nitroaniline	800 U	870 U	905 U		
Dimethylphthalate	330 U	360 U	362 U		
Acenaphthylene	330 U	330 J	326 J		
2,6-Dinitrotoluene	330 U	360 U	362 U		
3-Nitroaniline	800 U	870 U	905 U		
Acenaphthene	330 U	6 J	7 J		
2,4-Dinitrophenol	800 U	870 U	905 U		
4-Nitrophenol	330 U	360 U	362 U		
Dibenzofuran	330 U	17 J	18 J		
2,4-Dinitrotoluene	330 U	360 U	362 U		
Diethylphthalate	330 U	360 U	362 U		
4-Chlorophenyl-phenylether	330 U	360 U	362 U		
Fluorene	330 U	31 J	33 J	qualify	15
4-Nitroaniline	800 U	870 U	905 U		
4,6-Dinitro-2-methylphenol	800 U	870 U	905 U		
N-Nitrosodiphenylamine (1)	330 U	360 U	362 U		
4-Bromophenyl-phenylether	330 U	360 U	362 U		
Hexachlorobenzene	330 U	360 U	362 U		
Pentachlorophenol	800 U	870 U	905 U		
Phenanthrene	330 U	660	652		
Anthracene	330 U	210 J	217 J		
Carbazole	330 U	58 J	72 J		
Di-n-Butylphthalate	330 U	270 J	253 J		
Fluoranthene	330 U	1,600	1,593		
Pyrene	330 U	1,400	1,412		
Butylbenzylphthalate	330 U	160 J	145 J		
3,3'-Dichlorobenzidine	330 U	360 U	362 U		
Benzo(a)anthracene	330 U	660	652		
Chrysene	330 U	1,000	1,013		
Bis(2-Ethylhexyl)phthalate	330 U	590	579		
Di-n-octylphthalate	330 U	45 J	36 J		
Benzo(b)fluoranthene	330 U	1,100	1,086		
Benzo(k)fluoranthene	330 U	370	362		
Benzo(a)pyrene	330 U	700	688		
Indeno(1,2,3-cd)pyrene	330 U	400	398	J	qualify
Dibenz(a,h)anthracene	330 U	81 J	72 J		15
Benzo(a,h,i)perylene	330 U	290 J	290 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Page 2

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA			
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes	
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.			
	(PPB)	(PPB)	Decision			
Sample DW-101-3-S (Lab. #: 80564)						
Non-Target.Semivolatile Organics						
Unknown Aldol Condensate (9.23)	2,200 AJ	1,300 AJ	1,336 AJ	B	negate	1, 64
Unknown Aldol Condensate (10.02)	18,000 AJ	2,100 AJ	2,145 AJ	B	negate	1, 64
Unknown (10.76)	110 J	100 J	106 J	B	negate	1
Unknown Aldol Condensate (11.37)	1,500 AJ	1,500 AJ	1,477 AJ	B	negate	1, 64
Unknown (12.20)	110 J	110 J	106 J	B	negate	1
Unknown Aldol Condensate (12.51)	170 AJ	160 AJ	141 AJ	B	negate	1, 64
Unknown Aldol Condensate (12.79)	180 AJ	150 AJ	141 AJ	B	negate	1, 64
Unknown Amide (23.97)	72 J	85 J	70 J	B	negate	1
Unknown (28.13)	ND	110 J	106 J			

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		QA			
	Method	Lab.	Validation		
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.		
Sample / Analyte	(PPB)	(PPB)	Decision	Qualifiers	Footnotes
Sample DW-101-4-S (Lab. #: 80565)					
TCL Semivolatile Organics		(Diluted 5X)	% Moisture = 6		
Phenol	330 U	1,800 U	1,771 U		
bis(2-Chloroethyl)Ether	330 U	1,800 U	1,771 U		
2-Chlorophenol	330 U	1,800 U	1,771 U		
1,3-Dichlorobenzene	330 U	1,800 U	1,771 U		
1,4-Dichlorobenzene	330 U	1,800 U	1,771 U		
1,2-Dichlorobenzene	330 U	1,800 U	1,771 U		
2-Methylphenol	330 U	1,800 U	1,771 U		
bis(2-Chloroisopropyl)ether	330 U	1,800 U	1,771 U		
4-Methylphenol	330 U	1,800 U	1,771 U		
N-Nitroso-di-n-propylamine	330 U	1,800 U	1,771 U		
Hexachloroethane	330 U	1,800 U	1,771 U		
Nitrobenzene	330 U	1,800 U	1,771 U		
Isophorone	330 U	1,800 U	1,771 U		
2-Nitrophenol	330 U	1,800 U	1,771 U		
2,4-Dimethylphenol	330 U	1,800 U	1,771 U		
bis(2-Chloroethoxy)methane	330 U	1,800 U	1,771 U		
2,4-Dichlorophenol	330 U	1,800 U	1,771 U		
1,2,4-Trichlorobenzene	330 U	1,800 U	1,771 U		
Naphthalene	330 U	1,800 U	1,771 U	J	15
4-Chloroaniline	330 U	1,800 U	1,771 U	qualify	
Hexachlorobutadiene	330 U	1,800 U	1,771 U		
4-Chloro-3-methylphenol	330 U	1,800 U	1,771 U		
2-Methylnaphthalene	330 U	1,800 U	1,771 U		
Hexachlorocyclopentadiene	330 U	1,800 U	1,771 U		
2,4,6-Trichlorophenol	330 U	1,800 U	1,771 U		
2,4,5-Trichlorophenol	800 U	4,300 U	4,428 U		
2-Chloronaphthalene	330 U	1,800 U	1,771 U		
2-Nitroaniline	800 U	4,300 U	4,428 U		
Dimethylphthalate	330 U	1,800 U	1,771 U		
Acenaphthylene	330 U	1,800 U	1,771 U		
2,6-Dinitrotoluene	330 U	1,800 U	1,771 U		
3-Nitroaniline	800 U	4,300 U	4,428 U		
Acenaphthene	330 U	1,800 U	1,771 U		
2,4-Dinitrophenol	800 U	4,300 U	4,428 U		
4-Nitrophenol	330 U	1,800 U	1,771 U		
Dibenzofuran	330 U	1,800 U	1,771 U		
2,4-Dinitrotoluene	330 U	1,800 U	1,771 U		
Diethylphthalate	330 U	1,800 U	1,771 U		
4-Chlorophenyl-phenylether	330 U	1,800 U	1,771 U		
Fluorene	330 U	1,800 U	1,771 U		
4-Nitroaniline	800 U	4,300 U	4,428 U		
4,6-Dinitro-2-methylphenol	800 U	4,300 U	4,428 U		
N-Nitrosodiphenylamine (1)	330 U	1,800 U	1,771 U		
4-Bromophenyl-phenylether	330 U	1,800 U	1,771 U		
Hexachlorobenzene	330 U	1,800 U	1,771 U		
Pentachlorophenol	800 U	4,300 U	4,428 U		
Phenanthrene	330 U	1,800 U	1,771 U		
Anthracene	330 U	1,800 U	1,771 U		
Carbazole	330 U	1,800 U	1,771 U		
Di-n-Butylphthalate	330 U	1,800 U	1,771 U		
Fluoranthene	330 U	35 J	35 J		
Pyrene	330 U	31 J	35 J		
Butylbenzylphthalate	330 U	1,800 U	1,771 U		
3,3'-Dichlorobenzidine	330 U	1,800 U	1,771 U		
Benzo(a)anthracene	330 U	27 J	35 J		
Chrysene	330 U	26 J	35 J		
Bis(2-Ethylhexyl)phthalate	330 U	1,800 U	1,771 U		
Di-n-octylphthalate	330 U	1,800 U	1,771 U		
Benzo(b)fluoranthene	330 U	37 J	35 J		
Benzo(k)fluoranthene	330 U	1,800 U	1,771 U		
Benzo(a)pyrene	330 U	1,800 U	1,771 U		
Indeno(1,2,3-cd)pyrene	330 U	1,800 U	1,771 U		
Dibenz(a,h)anthracene	330 U	1,800 U	1,771 U		
Benzo(g,h,i)perylene	330 U	1,800 U	1,771 U		

No other problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Slightly different concentrations were calculated for the semivolatile compounds during the data validation than were reported by the laboratory. The discrepancies are due to the number of significant figures reported by the laboratory in their raw data. They only used one significant figure in their raw data print out. These differences do not significantly affect the end use of the data. Unless otherwise noted, the concentration reported by the laboratory should be used for all final reporting.

Soil Sample DW-101-1-S (Lab. #: 80573)

This soil sample was analyzed at a 5X dilution even though there did not appear to be a high concentration of any semivolatile organics in the sample. The laboratory must detail the reason for this dilution in the case narrative.

The laboratory reported the presence of 1,1,2,2-tetrachloroethane as a non-target compound in this fraction. This should be negated from the non-target list since it is a target compound in the volatile fraction. This compound was footnoted with #58 in the data validation summary table.

Soil Sample SMH-101-13-S (Lab. #: 80576)

Very high concentrations of DDD and DDT were detected in the pesticide and PCB fraction of this sample. Both DDD and DDT were confirmed as non-target compounds in this semivolatile fraction.

No other problems were found with the reported results of any of the samples of this delivery group.

Soil Semivolatile Organic Analyses - Method 95-2
Samples Received: August 27, 1998
Sample Delivery Group: G7851

Sample Delivery Group: G7851		Method	Lab.	QA		
		Blank	Reported	Validation		
		Conc.	Conc.	Reported		
Sample / Analyte		(PPB)	(PPB)	Conc.	Qualifiers	Footnotes
				Decision		
Sample DW-101-3-S (Lab. #: 80564)						
TCL Semivolatile Organics		(Undiluted)				
			% Moisture =	5		
Phenol		330 U	350 U	352 U		
bis(2-Chloroethyl)Ether		330 U	350 U	352 U		
2-Chlorophenol		330 U	350 U	352 U		
1,3-Dichlorobenzene		330 U	350 U	352 U		
1,4-Dichlorobenzene		330 U	350 U	352 U		
1,2-Dichlorobenzene		330 U	350 U	352 U		
2-Methylphenol		330 U	350 U	352 U		
bis(2-Chloroisopropyl)ether		330 U	350 U	352 U		
4-Methylphenol		330 U	350 U	352 U		
N-Nitroso-di-n-propylamine		330 U	350 U	352 U		
Hexachloroethane		330 U	350 U	352 U		
Nitrobenzene		330 U	350 U	352 U		
Isophorone		330 U	350 U	352 U		
2-Nitrophenol		330 U	350 U	352 U		
2,4-Dimethylphenol		330 U	350 U	352 U		
bis(2-Chloroethoxy)methane		330 U	350 U	352 U		
2,4-Dichlorophenol		330 U	350 U	352 U		
1,2,4-Trichlorobenzene		330 U	350 U	352 U		
Naphthalene		330 U	350 U	352 U	J	qualify
4-Chloroaniline		330 U	350 U	352 U		15
Hexachlorobutadiene		330 U	350 U	352 U		
4-Chloro-3-methylphenol		330 U	350 U	352 U		
2-Methylnaphthalene		330 U	350 U	352 U		
Hexachlorocyclopentadiene		330 U	350 U	352 U		
2,4,6-Trichlorophenol		330 U	350 U	352 U		
2,4,5-Trichlorophenol		800 U	840 U	879 U		
2-Chloronaphthalene		330 U	350 U	352 U		
2-Nitroaniline		800 U	840 U	879 U		
Dimethylphthalate		330 U	350 U	352 U		
Acenaphthylene		330 U	350 U	352 U		
2,6-Dinitrotoluene		330 U	350 U	352 U		
3-Nitroaniline		800 U	840 U	879 U		
Acenaphthene		330 U	350 U	352 U		
2,4-Dinitrophenol		800 U	840 U	879 U		
4-Nitrophenol		330 U	350 U	352 U		
Dibenzofuran		330 U	350 U	352 U		
2,4-Dinitrotoluene		330 U	350 U	352 U		
Diethylphthalate		330 U	350 U	352 U		
4-Chlorophenyl-phenylether		330 U	350 U	352 U		
Fluorene		330 U	350 U	352 U		
4-Nitroaniline		800 U	840 U	879 U		
4,6-Dinitro-2-methylphenol		800 U	840 U	879 U		
N-Nitrosodiphenylamine (1)		330 U	350 U	352 U		
4-Bromophenyl-phenylether		330 U	350 U	352 U		
Hexachlorobenzene		330 U	350 U	352 U		
Pentachlorophenol		800 U	840 U	879 U		
Phenanthrene		330 U	350 U	352 U		
Anthracene		330 U	350 U	352 U		
Carbazole		330 U	350 U	352 U		
Di-n-Butylphthalate		330 U	350 U	352 U		
Fluoranthene		330 U	10 J	11 J		
Pyrene		330 U	8 J	7 J		
Butylbenzylphthalate		330 U	350 U	352 U		
3,3'-Dichlorobenzidine		330 U	350 U	352 U		
Benzo(a)anthracene		330 U	4 J	4 J		
Chrysene		330 U	4 J	4 J		
Bis(2-Ethylhexyl)phthalate		330 U	96 J	106 J		
Di-n-octylphthalate		330 U	62 J	70 J		
Benzo(b)fluoranthene		330 U	6 J	11 J		
Benzo(k)fluoranthene		330 U	350 U	352 U		
Benzo(a)pyrene		330 U	350 U	352 U		
Indeno(1,2,3-cd)pyrene		330 U	350 U	352 U		
Dibenz(a,h)anthracene		330 U	350 U	352 U		
Benzo(g,h,i)perylene		330 U	350 U	352 U		

Holding Times

All other samples were extracted and analyzed within the holding times required by the NYS DEC's ASP program.

Tunes

No problems were detected with any of the tunes.

Surrogate Compound Recoveries

All surrogate compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

The initial calibration standards referenced on FORM VI in this analytical report (10, 25, 40, 60, and 80ng) are not those required for the NYS DEC ASP program (20, 50, 80, 120 and 160ng). The standards referenced on the continuing calibration forms (25ng) are not those required by this program (50ng).

Several other minor problems were found with the calibrations:

The percent RSD of naphthalene (21%) was just above the 20.5% quality assurance limit in the initial calibration associated with the analyses of samples DW-101-3-S and DW-101-4-S. Naphthalene was not detected in either of these two samples.

The percents RSDs of fluorene (23%) and Indeno(1,2,3-cd)pyrene (20.6%) were above the 20.5% quality assurance limit in the initial calibration associated with the analyses of samples DW-101-10A-S, DW-101-10A-SMS, DW-101-10A-SMSD, DW-101-2-S, DW-101-7-S, DW-101-8-S, DW-101-6-S, DW-101-5-S, DW-101-1-S, DW-101-9-S, DW-101-12-S, DW-101-11-S and DW-101-13-S.

The percent difference of pyrene (26%) in the 9/10 continuing calibration (R5523) was just above the 25% quality assurance limit. This continuing calibration was associated with the analyses of samples DW-101-5-S, DW-101-1-S, DW-101-9-S, DW-101-12-S, DW-101-11-S and DW-101-13-S.

The data for these compounds were flagged with the "J" qualifier and footnoted with #15 in the data validation summary table.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 4 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

The continuing calibration (FORM VII) associated with the samples analyzed on 9/09 (R5507) was not submitted. This was received from the laboratory in their 1/22 resubmission.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample DW-101-10A-S (Lab. #: 80566) of this sample delivery group was used for the medium level matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits with the following exceptions:

Compound	MS %Rec	MSD %Rec	QC Limits	RPD	Limits
Phenol			26-90		35
2-Chlorophenol			25-102		50
1,4-Dichlorobenzene	25%	36%	28-104		27
N-Nitroso-di-n-prop.	32%		41-126		38
1,2,4-Trichlorobenzene	34%	34%	38-107		23
4-Chloro-3-methylphenol		34%	26-103		33
Acenaphthene		31%	31-137		19
4-Nitrophenol			11-114		50
2,4-Dinitrotoluene			28-89		47
Pentachlorophenol			17-109		47
Pyrene	6%	114%	35-142		36

It is possible that some concentrations of semivolatile compounds may have been underestimated or overlooked in these samples..

Blank Spike

All soil blank spike recoveries were within the required quality assurance limits.

Method Blanks

Several non-target compounds were found in the two method blanks which were analyzed with this sample delivery group.

Often these compounds were not flagged with the "B" qualifier in the sample FORM I's. These forms were revised in the laboratory's 1/20 resubmission.

Several aldols were detected in both the samples. All of these should be negated since their presence is most likely an extraction artifact. All of the aldols were flagged with the "J" qualifier and footnoted with #64 in the data validation summary table.

Field Blank

A field blank was not associated with the samples of this delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

The instrument detection limits initially reported were analyzed one month beyond the six month limit required by the NYS DEC ASP program. The laboratory submitted instrument detection limits from August in their 1/20 resubmission, but the specific instrument was not noted on the IDL summary.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: August 27, 1998

Sample Delivery Group: G7851

Laboratory Reference Numbers:

DW-101-3-S	80564
DW-101-4-S	80565
DW-101-10A-S	80566
DW-101-10A-SMS	80566MS
DW-101-10A-SMSD	80566MSD
DW-101-2-S	80568
DW-101-7-S	80569
DW-101-8-S	80570
DW-101-5-S	80571
DW-101-6-S	80572
DW-101-1-S	80573
DW-101-9-S	80574
DW-101-12-S	80575
SMH-101-13-S	80576
DW-101-11-S	80577

Soil samples were received for analyses of the ^{semi}volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
 - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
 - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 27 1999

For Hazardous Waste Section

DATA VALIDATION SUMMARY

Very high concentrations of DDD and DDT were detected in the pesticide and PCB fraction of sample SMH-101-13-S (Lab. #: 80576). Both DDD and DDT were confirmed as non-target compounds in this semivolatile fraction.

The low recoveries of several of the matrix spikes should be noted. It is possible that concentrations of some semivolatile compounds were underestimated or overlooked.

The instrument detection limits initially reported were analyzed one month beyond the six month limit required by the NYS DEC ASP program. The laboratory submitted instrument detection limits from August in their 1/20 resubmission, but the specific instrument was not noted on the IDL summary.

Some of the laboratory file numbers were not consistent between the NYS DEC ASP forms and the sample FORM I's (i.e. - DW-101-1-S noted as 80573 on the summary form, but as 80572 on FORM I). These were corrected in the laboratory's 1/20 resubmission.

The initial calibration standards referenced on FORM VI in this analytical report (10, 25, 40, 60, and 80ng) are not those required for the NYS DEC ASP program (20, 50, 80, 120 and 160ng). The standards referenced on the continuing calibration forms (25ng) are not those required by this program (50ng).

Several samples were also noted on the chain of custody form as being analyzed for metals. This omission of this sample was not addressed in the case narrative. The reason for this discrepancy must be noted in the case narrative. This was addressed in the laboratory's 1/20 resubmission.

Several soil samples were analyzed at varying dilutions even though there did not appear to be a high concentration of any semivolatile organics in the samples. The laboratory must detail the reason for these dilutions in the case narrative.

No other problems were found with the analyses of these samples which would affect the end use of the data.



Nancy J. Potak
January 22, 1999

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS1

Level: Low

Tune File ID: A5574

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: A5577

Date: 09/10/98

Page: 281

Associated Samples: VBLKAV253, 89DWA-16 31

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

PPB

10

20

50

100

200

Bromomethane

150162/1379687 * 5.000 = 0.544

322436/1350923 * 2.500 = 0.597

683688/1145147 * 1.000 = 0.597

1812227/1406182 * 0.500 = 0.644

3629853/1277966 * 0.250 = 0.710

Benzene

905271/4494271 * 5.000 = 1.007

1511066/4462774 * 2.500 = 0.846

2948915/3735279 * 1.000 = 0.789

7306338/4616085 * 0.500 = 0.791

13274912/4264567 * 0.250 = 0.778

AV. RRF = 0.618

%RSD = 10.1%

AV. RRF = 0.843

%RSD = 11.4%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS1

Level: Low

Tune File ID: A5574

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: A5577

Date: 09/10/98

Page: 1/6 revision - Not paginated.

Initial Calibration File ID: A5577

Date: 09/10/98

Page: 281

Associated Samples: VBLKAV253, 89DWA-16 31

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300

Surrogates:

Toluene-d8	<100	>0.01
Bromofluorobenzene *	<25.0	>0.20
1,2-Dichloroethane-d4	<100	>0.01

All Compounds Average RRF > QC Limit:

All Compounds Average RRF > 0.01:

All Compounds %D < QC Limit:

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

PPB

50

1,1-Dichloroethene

1240244/1145147 * 1.000 = 1.083

Ethylbenzene

1100794/2749287 * 1.000 = 0.400

%D: (1.133 - 1.083) / 1.133 * 100 = 4.413063

%D: (0.417 - 0.400) / 0.417 * 100 = 4.076739

METHOD BLANK: VBLKAV253 (Page 384)

Compound

Methylene Chloride

Acetone

ppb

3J

12

<CRDL

10

10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS9 Level: Low
Tune File ID: K4037 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: K4038 Date: 08/20/98 Page: 314
Associated Samples: VBLKKV247, DW-101-11-S, 89-DWA-SMH-W, 89-DWA-05, 101-DWA-6 50, SMH-101-13-S, 89DWA-18 51- DW-101-12-S, 89-DWA-SMH-WMS, 89-DWA-SMH-WMSD, 6002BS

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Trichloroethene
PPB		
10	94172/379232 * 5.000 = 1.242	138699/1480362 * 5.000 = 0.468
20	209164/385406 * 2.500 = 1.357	288384/1516232 * 2.500 = 0.475
50	503569/405879 * 1.000 = 1.241	690013/1595244 * 1.000 = 0.433
100	1041498/398319 * 0.500 = 1.307	1432034/151384 * 0.500 = 0.473
200	1965599/399995 * 0.250 = 1.229	2595093/1532740 * 0.250 = 0.423

AV. RRF = 1.275

%RSD = 4.3%

AV. RRF = 0.454

%RSD = 5.5%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low

Tune File ID: K4271

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: K4272

Date: 09/04/98

Page: 314

Initial Calibration File ID: K4038

Date: 08/20/98

Page: 339

Associated Samples: VBLKKV247, DW-101-11-S, 89-DWA-SMH-W, 89-DWA-05, 101-DWA-6 50, SMH-101-13-S, 89DWA-18 51- DW-101-12-S, 89-DWA-SMH-WMS, 89-DWA-SMH-WMSD, 6002BS

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Chloroform

Chlorobenzene

PPB

50

980233/383021 * 1.000 = 2.559

1134947/1127064 * 1.000 = 1.007

%D: (2.616 - 2.559) / 2.616 * 100 = 2.178899

%D: (1.039 - 1.007) / 1.039 * 100 = 3.079885

METHOD BLANK: VBLK

(Page)

Compound

ppb

<CRDL

No compounds were detected in this method blank

Methylene Chloride

7J

10

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY**

Instrument ID: XVOAMS2 Level: low - water
Tune File ID: B7224 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: B7225 Date: 08/03/98 Page: 297
Associated Samples: VBLKBV247B, 89-DWA-SMH-E, 89-DWA-SMH-EMS, 89-DWA-SMH-EMSD, 6012BS

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes
All Compounds Average RRF > 0.05: yes
All Compounds %RSD < QC Limit: yes
All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Toluene	Chloroform
PPB		
10	985128/3152857 * 5.000 = 1.562	669087/1096437 * 5.000 = 3.051
20	1924398/2861934 * 2.500 = 1.681	1276188/1006326 * 2.500 = 3.170
50	4651480/3063673 * 1.000 = 1.518	3132645/1137576 * 1.000 = 2.754
100	9491213/3445103 * 0.500 = 1.377	6600809/1282634 * 0.500 = 2.573
200	20746361/3402080 * 0.250 = 1.524	14459832/1279735 * 0.250 = 2.825

AV. RRF = 1.532

%RSD = 7.1%

AV. RRF = 2.875

%RSD = 8.3%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2	Level: low - water	
Tune File ID: B7829	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B7830	Date: 09/04/98	Page: 334
Initial Calibration File ID: B7225	Date: 08/03/98	Page: 297
Associated Samples: VBLKBV247B, 89-DWA-SMH-E, 89-DWA-SMH-EMS, 89-DWA-SMH-EMSD, 6012BS		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	27%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: no

Footnote:

Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Benzene
PPB		
50	1383200/1125679 * 1.000 = 1.229	4181501/3969892 * 1.000 = 1.053
%D:	(1.359 - 1.229) / 1.359 * 100 = 9.565857	%D: (1.151 - 1.053) / 1.151 * 100 = 8.514335

METHOD BLANK: VBLKBV247B

(Page 370)

Compound	ppb	<CRDL
Methylene Chloride	160J	1200

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS1 Level: Low - Soil
Tune File ID: A4635 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: A4638 Date: 07/17/98 Page: 265
Associated Samples: VBLKAV246, DW-101-10A-S, DW-101-10A-SMS, DW-101-10A-SMSD, 101-DWA-5 40,
DW-101-2-S, DW-101-7-S, DW-101-8-S, DW-101-5-S, DW-101-6-S, DW-101-1-S, DW-101-9-S

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	29%	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes
All Compounds Average RRF > 0.05: yes
All Compounds %RSD < QC Limit: no
All Compounds %RSD < 100%: yes

Footnote:

Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Tetrachloroethene
PPB		
10	584256/1878015 * 5.000 = 1.556	669373/5328752 * 5.000 = 0.628
20	1094477/2233925 * 2.500 = 1.225	1552031/6432318 * 2.500 = 0.603
50	2702777/2572993 * 1.000 = 1.050	3395528/6544202 * 1.000 = 0.519
100	5389358/2231726 * 0.500 = 1.207	6838501/6402317 * 0.500 = 0.534
200	9807826/2009802 * 0.250 = 1.220	12150860/5203819 * 0.250 = 0.584
AV. RRF = 1.252	%RSD = 14.8%	AV. RRF = 0.574 %RSD = 8.0%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS1	Level: Low - Soil	
Tune File ID: A5511	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: A5512	Date: 09/03/97	Page: 330
Initial Calibration File ID: A4638	Date: 07/17/98	Page: 265
Associated Samples: VBLKAV246, DW-101-10A-S, DW-101-10A-SMS, DW-101-10A-SMSD, 101-DWA-5 40, DW-101-2-S, DW-101-7-S, DW-101-8-S, DW-101-5-S, DW-101-6-S, DW-101-1-S, DW-101-9-S		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	29%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: no

Footnote:

Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Trichloroethene

Toluene

PPB

50

2744237/5216603 * 1.000 = 0.526

4836738/3744922 * 1.000 = 1.292

%D: (0.464 - 0.526) / 0.464 * 100 = -13.362069

%D: (1.246 - 1.292) / 1.246 * 100 = -3.691814

METHOD BLANK: VBLKAV246 (Page 364)

Compound

Methylene Chloride

ppb

2J

<CRDL

10

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample 89DWA-16 31-33 (Lab. #: 81701) Received 9/3					
		% Moisture = 1			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	3 J	3 JB	3 JB	negate	1
Acetone	12	11 B	11 B	J negate	1
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	10 U	11 U		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	10 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	10 U	11 U		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	10 U	11 U		
Non-Target Volatile Organics					
None Detected					

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851
Laboratory Reference Numbers:

Received 8/27

DW-101-10A-S	80566
101-DWA-5 40-44	80567
DW-101-2-S	80568
DW-101-7-S	80569
DW-101-8-S	80570
DW-101-5-S	80571
DW-101-6-S	80572
DW-101-1-S	80573
DW-101-9-S	80574
DW-101-12-S	80575
SMH-101-13-S	80576
DW-101-11-S	80577
89-DWA-SMH-W	80578
89-DWA-SMH-WMS	80578MS
89-DWA-SMH-WMSD	80578MSD
89-DWA-05	80579
89-DWA-SMH-E	80580
89-DWA-SMH-EMS	80580MS
89-DWA-SMH-EMSD	80580MSD

Received 9/1

101-DWA-6 50-54	81101

Received 9/2

89DWA-18 51-53	81444

Received 9/3

89DWA-16 31-33	81701

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-DWA-6 50-54 (Lab. #: 81101) Received 9/01					
		% Moisture = 8			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	10 U	2 JB	2 JB	negate	1
Acetone	10 U	12 B	13 B	J negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 89DWA-18 51-53 (Lab. #: 81444) Received 9/02					
		% Moisture = 6			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	11 U		
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	10 U	2 JB	2 JB	negate	1
Acetone	10 U	8 JB	9 JB	negate	1
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	10 U	11 U		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	10 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	10 U	11 U		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	10 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 89_DWA-05 (Lab. #: 80579) Received 8/27					
		% Moisture = 5			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	11 U		
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	10 U	5 JB	5 JB	negate	1
Acetone	10 U	41 B	41 B	J negate	1
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	5 J	4 J		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	0.7 J	0.7 J		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	2 J	1 J		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 89-DWA-SMH-E (Lab. #: 80580) Received 8/27					
	% Moisture = 9				
TCL Volatile Organics	(Medium Level - 5 g extracted, 100 ul analyzed)				
Chloromethane	1,200 U	1,000 U	1,099 U		
Bromomethane	1,200 U	1,000 U	1,099 U	J qualify	15
Vinyl Chloride	1,200 U	1,000 U	1,099 U		
Chloroethane	1,200 U	1,000 U	1,099 U		
Methylene Chloride	160 J	1,000 U	1,099 U		
Acetone	1,200 U	1,000 U	1,099 U		
Carbon Disulfide	1,200 U	1,000 U	1,099 U		
1,1-Dichloroethene	1,200 U	1,000 U	1,099 U		
1,1-Dichloroethane	1,200 U	1,000 U	1,099 U		
1,2-Dichloroethene (total)	1,200 U	1,000 U	1,099 U		
Chloroform	1,200 U	1,000 U	1,099 U		
1,2-Dichloroethane	1,200 U	1,000 U	1,099 U		
2-Butanone	1,200 U	1,000 U	1,099 U		
1,1,1-Trichloroethane	1,200 U	1,000 U	1,099 U		
Carbon Tetrachloride	1,200 U	1,000 U	1,099 U		
Bromodichloromethane	1,200 U	1,000 U	1,099 U		
1,2-Dichloropropane	1,200 U	1,000 U	1,099 U		
cis-1,3-Dichloropropene	1,200 U	1,000 U	1,099 U		
Trichloroethene	1,200 U	1,000 U	1,099 U		
Dibromochloromethane	1,200 U	1,000 U	1,099 U		
1,1,2-Trichloroethane	1,200 U	1,000 U	1,099 U		
Benzene	1,200 U	1,000 U	1,099 U		
trans-1,3-Dichloropropene	1,200 U	1,000 U	1,099 U		
Bromoform	1,200 U	1,000 U	1,099 U		
4-Methyl-2-Pentanone	1,200 U	1,000 U	1,099 U		
2-Hexanone	1,200 U	1,000 U	1,099 U		
Tetrachloroethene	1,200 U	2,400	2,527		
1,1,2,2-Tetrachloroethane	1,200 U	1,000 U	1,099 U		
Toluene	1,200 U	1,000 U	1,099 U		
Chlorobenzene	1,200 U	1,000 U	1,099 U		
Ethylbenzene	1,200 U	1,000 U	1,099 U		
Styrene	1,200 U	1,000 U	1,099 U		
Xylene (total)	1,200 U	1,000 U	1,099 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample SW-101-11-S (Lab. #: 80577) Received 8/27					
		% Moisture = 13			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	11 U		
Bromomethane	10 U	12 U	11 U		
Vinyl Chloride	10 U	12 U	11 U		
Chloroethane	10 U	12 U	11 U		
Methylene Chloride	10 U	2 JB	2 JB	negate	1
Acetone	10 U	4 JB	3 JB	negate	1
Carbon Disulfide	10 U	12 U	11 U		
1,1-Dichloroethene	10 U	12 U	11 U		
1,1-Dichloroethane	10 U	12 U	11 U		
1,2-Dichloroethene (total)	10 U	12 U	11 U		
Chloroform	10 U	12 U	11 U		
1,2-Dichloroethane	10 U	12 U	11 U		
2-Butanone	10 U	12 U	11 U		
1,1,1-Trichloroethane	10 U	12 U	11 U		
Carbon Tetrachloride	10 U	12 U	11 U		
Bromodichloromethane	10 U	12 U	11 U		
1,2-Dichloropropane	10 U	12 U	11 U		
cis-1,3-Dichloropropene	10 U	12 U	11 U		
Trichloroethene	10 U	12 U	11 U		
Dibromochloromethane	10 U	12 U	11 U		
1,1,2-Trichloroethane	10 U	12 U	11 U		
Benzene	10 U	12 U	11 U		
trans-1,3-Dichloropropene	10 U	12 U	11 U		
Bromoform	10 U	12 U	11 U		
4-Methyl-2-Pentanone	10 U	12 U	11 U		
2-Hexanone	10 U	12 U	11 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	12 U	11 U		
Toluene	10 U	12 U	11 U		
Chlorobenzene	10 U	12 U	11 U		
Ethylbenzene	10 U	12 U	11 U		
Styrene	10 U	12 U	11 U		
Xylene (total)	10 U	12 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 89-DWA-SMH-W (Lab. #: 80578) Received 8/27					
		% Moisture = 14			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U		
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	10 U	2 JB	2 JB	negate	1
Acetone	10 U	24 B	24 B	J negate	1
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	12 U	12 U		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	60	60		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	12 U	12 U		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	12 U	12 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-101-12-S (Lab. #: 80575) Received 8/27					
Non-Target Volatile Organics					
C9H18 Cycloalkane (12.63)	NA	33 J	34 J		
C9H20 Alkane (12.77)	NA	14 J	15 J		
Unknown Alkane (12.87)	NA	17 J	17 J		
Unknown (13.84)	NA	71 J	72 J		
C9H12 Aromatic/Unknown Alkan (13.96)	NA	60 J	60 J		
Unknown Hydrocarbon (14.29)	NA	62 J	62 J		
Trimethylbenzene Isomer (14.44)	NA	160 J	158 J		
Ethylmethylbenzene Isomer/Cl (14.64)	NA	76 J	76 J		
Methyl-Methylethylbenzene Is (14.98)	NA	100 J	105 J		
Trimethylbenzene Isomer (15.16)	NA	42 J	42 J		
Methyl-Methlethylbenzene Is (15.35)	NA	170 J	168 J		
Decahydronaphthalene Isomer (15.47)	NA	130 J	126 J		
Ethylidimethylbenzene Isomer (15.68)	NA	160 J	158 J		
Coeluting Aromatics (15.80)	NA	130 J	126 J		
C10H14 Aromatic/Unknown (16.01)	NA	220 J	221 J		
Unknown Aromatic (16.25)	NA	42 J	42 J		
Ethylidimethylbenzene Isomer (16.44)	NA	130 J	126 J		
Tetrahydronaphthalene Isomer (16.54)	NA	19 J	19 J		
Coeluting Aromatics (16.74)	NA	30 J	29 J		
Unknown (16.84)	NA	25 J	25 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample SMH-101-13 S (Lab. #: 80576) Received 8/27					
		% Moisture = 13			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	11 U		
Bromomethane	10 U	12 U	11 U		
Vinyl Chloride	10 U	12 U	11 U		
Chloroethane	10 U	12 U	11 U		
Methylene Chloride	10 U	2 JB	2 JB	negate	1
Acetone	10 U	12 U	11 U		
Carbon Disulfide	10 U	12 U	11 U		
1,1-Dichloroethene	10 U	12 U	11 U		
1,1-Dichloroethane	10 U	12 U	11 U		
1,2-Dichloroethene (total)	10 U	12 U	11 U		
Chloroform	10 U	12 U	11 U		
1,2-Dichloroethane	10 U	12 U	11 U		
2-Butanone	10 U	12 U	11 U		
1,1,1-Trichloroethane	10 U	12 U	11 U		
Carbon Tetrachloride	10 U	12 U	11 U		
Bromodichloromethane	10 U	12 U	11 U		
1,2-Dichloropropane	10 U	12 U	11 U		
cis-1,3-Dichloropropene	10 U	12 U	11 U		
Trichloroethene	10 U	12 U	11 U		
Dibromochloromethane	10 U	12 U	11 U		
1,1,2-Trichloroethane	10 U	12 U	11 U		
Benzene	10 U	12 U	11 U		
trans-1,3-Dichloropropene	10 U	12 U	11 U		
Bromoform	10 U	12 U	11 U		
4-Methyl-2-Pentanone	10 U	12 U	11 U		
2-Hexanone	10 U	12 U	11 U		
Tetrachloroethene	10 U	0.5 J	0.5 J		
1,1,2,2-Tetrachloroethane	10 U	12 U	11 U		
Toluene	10 U	12 U	11 U		
Chlorobenzene	10 U	12 U	11 U		
Ethylbenzene	10 U	12 U	11 U		
Styrene	10 U	12 U	11 U		
Xylene (total)	10 U	12 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-1-S (Lab. #: 80573)					
	% Moisture = 4				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	10 U	8 J	8 J		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.4 J	0.3 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-101-9-S (Lab. #: 80574) Received 8/27					
		% Moisture = 9			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U	J	15
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	10 U	11 U	11 U		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	6 J	7 J		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	0.6 J	0.7 J		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-101-5-S (Lab. #: 80571) Received 8/27					
		% Moisture = 10			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U	J	15
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	2 JB	negate	1
Acetone	10 U	11 U	11 U		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	0.7 J	0.7 J		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	2 J	2 J		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	0.6 J	0.7 J		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-6-S (Lab. #: 80572)					
	% Moisture = 6				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U	J qualify	15
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	2 JB	negate	1
Acetone	10 U	11 U	11 U		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	74	73		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	0.4 U	0.4 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-101-7-S (Lab. #: 80569) Received 8/27					
		% Moisture = 14			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U	J	15
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	2 J	4 JB	3 JB	negate	1
Acetone	10 U	60	59		
Carbon Disulfide	10 U	0.8 J	0.8 J		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	10 J	9 J		
1,1,1-Trichloroethane	10 U	0.6 J	0.7 J		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	12 U	12 U		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	2 J	2 J		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	0.5 J	0.5 J		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	2 J	2 J		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Reported Conc. Decision		
Sample DW-101-8-S (Lab. #: 80570) Received 8/27					
		% Moisture = 15			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U	J	15
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	2 J	3 JB	4 JB	negate	1
Acetone	10 U	20	20		
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	12 U	12 U		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	7 J	7 J		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	0.6 U	0.6 U		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	3 J	2 J		
Non-Target Volatile Organics					
Unknown Alkane (9.84)	NA	9 J	8 J		
C8H18 Alkane (9.94)	NA	10 J	9 J		
Unknown Hydrocarbon (11.27)	NA	14 J	13 J		
C8H18 Alkane (11.90)	NA	11 J	10 J		
Trimethylbenzene Isomer (15.82)	NA	15 J	14 J		
Ethylidimethylbenzene Isomer (16.56)	NA	11 J	10 J		
Ethylidimethylbenzene Isomer (16.97)	NA	38 J	36 J		
Ethylidimethylbenzene Isomer (17.42)	NA	17 J	17 J		
2,3-Dihydro-methyl-1H-Indene (17.62)	NA	15 J	14 J		
Ethylidimethylbenzene Isomer (17.95)	NA	36 J	34 J		
Coeluting Aromatics (18.33)	NA	11 J	10 J		
2,3-Dihydro-methyl-1H-Indene (18.52)	NA	24 J	22 J		
2,3-Dihydro-dimethyl-1H-Indene (18.86)	NA	19 J	18 J		
2,3-Dihydro-dimethyl-1H-Indene (19.07)	NA	11 J	11 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101-DWA-5 40-44 (Lab. #: 80567) Received 8/27					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	10 U	19	19		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.4 J	0.4 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-2-S (Lab. #: 80568) Received 8/27					
		% Moisture = 10			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U	J	qualify 15
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	10 U	3 JB	2 JB	negate	1
Acetone	10 U	11 U	11 U		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	0.3 J	0.3 J		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Method Blanks

Low concentrations of acetone were detected in several of the method blanks of this sample delivery group. These were negated whenever they were detected in an associated sample.

The specific method blanks and their associated samples are noted in both the data validation summary table and in the data validation worksheets.

Trip Blanks

A trip blank was not analyzed with this sample delivery group.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 27th through September 3rd, 1998
Sample Delivery Group: G7851

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-101-10A-S (Lab. #: 80566) Received 8/27					
		% Moisture = 8			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U	J qualify	15
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	10 U	8 J	8 J		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	0.6 J	0.7 J		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Holding Times

All samples were analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

The FORM V's noted that an unheated purge was used in the analyses of these samples. These forms were amended to a heated purge in the laboratory's 1/6 resubmission.

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

The %RSD of bromomethane (29%) was above the 20.5% quality assurance limit in the 7/17 initial calibration and above the 25% quality assurance limit (29%) in the 9/03 continuing calibration. These calibrations were associated with the analyses of samples DW-101-10A-S, DW-101-10A-SMS, DW-101-10A-SMSD, 101-DWA-5 40, DW-101-2-S, DW-101-7-S, DW-101-8-S, DW-101-5-S, DW-101-6-S, DW-101-1-S and DW-101-9-S.

The % difference of bromomethane (27%) was above the 25% quality assurance limit in the 9/04 continuing calibration. This calibration was associated with the analyses of samples 89-DWA-SMH-E, 89-DWA-SMH-EMS, 89-DWA-SMH-EMSD and 6012BS.

The 9/10 continuing calibration standard summary form (A5577) was not included in the analytical report. This was received in the laboratory's 1/6 resubmission.

No problems were detected with the initial or continuing calibrations of this sample delivery group.

Matrix Spike / Matrix Spike Duplicate

Samples 89-DWA-SMH-W (Lab. #: 80578) and DW-101-10A-S (Lab. #: 80566) of this sample delivery group were both used for the low level matrix spike and matrix spike duplicates. All recoveries and RPDs were within the acceptable quality control limits. Note: sample DW-101-10A-S was not listed as a matrix spike on the NYS DEC ASP summary form (page 6).

Sample 89-DWA-SMH-E (Lab. #: 80580) of this sample delivery group was used for the medium level matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of either the low level or medium level the blank spikes.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Volatile Organic Analyses - Method 95-1

Samples Received: August 27th through September 3rd, 1998

Sample Delivery Group: G7851

Laboratory Reference Numbers:

Received 8/27

DW-101-10A-S	80566
101-DWA-5 40-44	80567
DW-101-2-S	80568
DW-101-7-S	80569
DW-101-8-S	80570
DW-101-5-S	80571
DW-101-6-S	80572
DW-101-1-S	80573
DW-101-9-S	80574
DW-101-12-S	80575
SMH-101-13-S	80576
DW-101-11-S	80577
89-DWA-SMH-W	80578
89-DWA-SMH-WMS	80578MS
89-DWA-SMH-WMSD	80578MSD
89-DWA-05	80579
89-DWA-SMH-E	80580
89-DWA-SMH-EMS	80580MS
89-DWA-SMH-EMSD	80580MSD

Received 9/1

101-DWA-6 50-54	81101

Received 9/2

89DWA-18 51-53	81444

Received 9/3

89DWA-16 31-33	81701

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 13 1999

For Hazardous Waste Section

Soil samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- Data Completeness
- GC/MS Tuning
- * - Holding Times
- Calibrations
- Laboratory Blanks
- Field Blanks
- Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

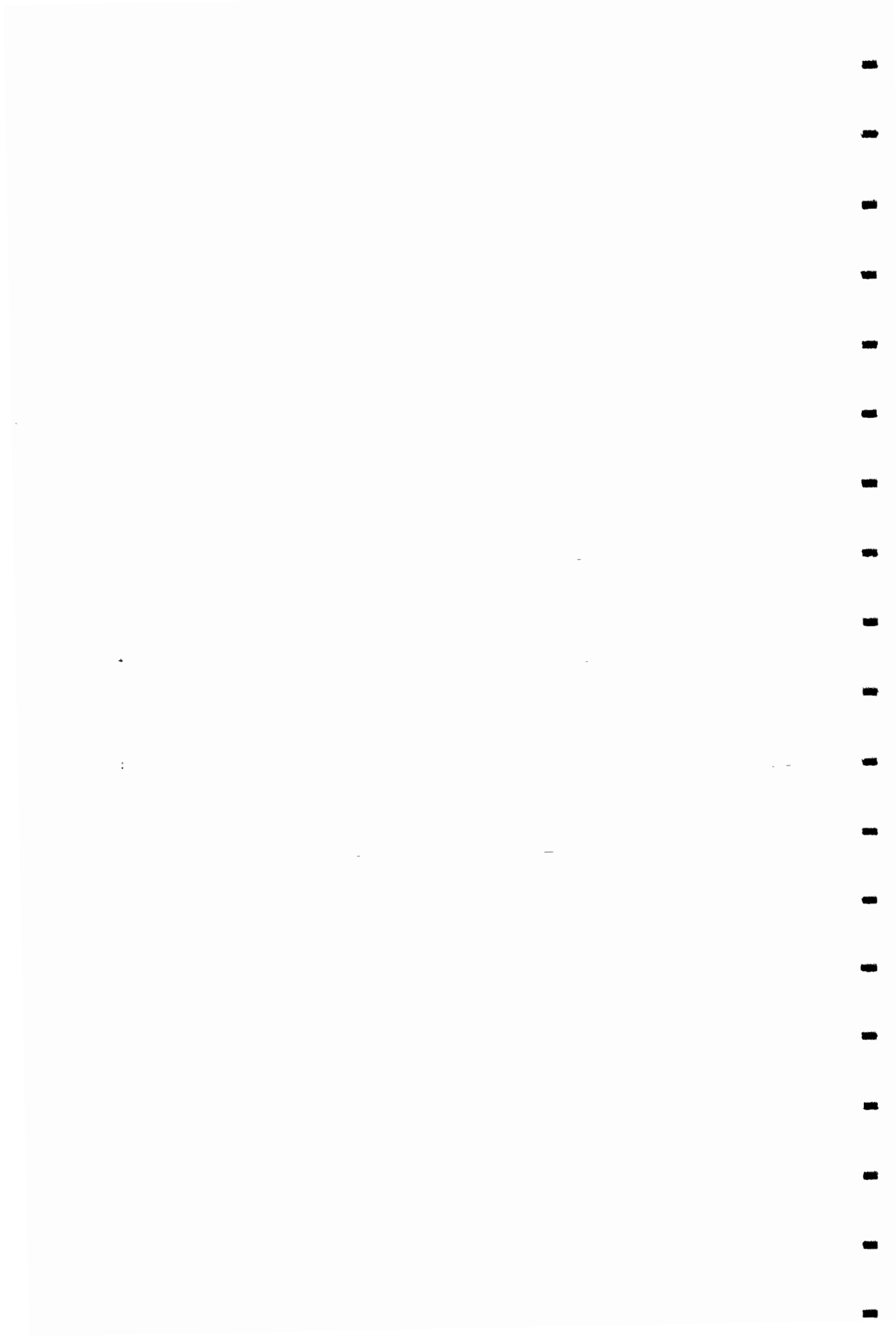
The chain of custody indicates that some samples were received for inorganic analyses, but these samples were not included in this sample delivery group. A revised case narrative was received in the laboratory's January 6, 1999 resubmission.

The 9/10 continuing calibration standard summary form (A5577) was not included in the analytical report. This was received in the laboratory's 1/6 resubmission.

The FORM V's noted that an unheated purge was used in the analyses of these samples. These forms were amended to a heated purge in the laboratory's 1/6 resubmission.

No significant problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
January 11, 1999



LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

JAN 27 1999

For Hazardous Waste Section

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

NOT COMPLETE

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	Pesticides & PCB Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
G7851	8/27/98	95	DW-101-3-S	80564	Soil	NA	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-4-S	80565	Soil	NA	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-10A-S	80566	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-10A-SMS	80566MS	Soil	NA	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-10A-SMSD	80566MSD	Soil	NA	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	101-DWA-5 40-44	80567	Soil	Yes - *	NA	NA	NA	NA		
G7851	8/27/98	95	DW-101-2-S	80568	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-7-S	80569	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-8-S	80570	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-8-S	80570DL	Soil	NA	NA	See Text	NA	NA		
G7851	8/27/98	95	DW-101-5-S	80571	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-6-S	80572	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-1-S	80573	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-9-S	80574	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-12-S	80575	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	DW-101-12-S	80575DL1	Soil	NA	NA	See Text	NA	NA		
G7851	8/27/98	95	DW-101-12-S	80575DL2	Soil	NA	NA	See Text	NA	NA		
G7851	8/27/98	95	SMH-101-13-S	80576	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	SMH-101-13-S	80576DL	Soil	NA	NA	See Text	NA	NA		
G7851	8/27/98	95	DW-101-11-S	80577	Soil	Yes - *	Yes - *	See Text	NA	NA		
G7851	8/27/98	95	89-DWA-SMH-W	80578	Soil	Yes - *	NA	NA	NA	NA		
G7851	8/27/98	95	89-DWA-SMH-WMS	80578MS	Soil	Yes - *	NA	NA	NA	NA		
G7851	8/27/98	95	89-DWA-SMH-WMSD	80578MSD	Soil	Yes - *	NA	NA	NA	NA		
G7851	8/27/98	95	89-DWA-05	80579	Soil	Yes - *	NA	NA	NA	NA		
G7851	8/27/98	95	89-DWA-SMH-E	80580	Soil	Yes - *	NA	NA	NA	NA		
G7851	8/27/98	95	89-DWA-SMH-EMS	80580MS	Soil	Yes - *	NA	NA	NA	NA		
G7851	8/27/98	95	89-DWA-SMH-EMSD	80580MSD	Soil	Yes - *	NA	NA	NA	NA		
G7851	9/1/98	95	101-DWA-6 50-54	81101	Soil	Yes - *	NA	NA	NA	NA		
G7851	9/2/98	95	89DWA-18 51-53	81444	Soil	Yes - *	NA	NA	NA	NA		
G7851	9/3/98	95	89DWA-16 31-33	81701	Soil	Yes - *	NA	NA	NA	NA		

* - With 1/6/99 and 1/20 resubmissions.

[illegible]

[illegible]

[illegible]

[illegible]

Initial Calibration									
INDAM	Page: 1,428		Date:		Time:		Sheet1		
	DB-1701 RT1	DB-608 RT2	DB-1701 Resp 1	DB-608 Resp 2	#1 Calc. Cal. Fac.	R/C	DB-608 #2 Calc. Cal. Fac.	R/C	
alpha-BHC					0	0.0200	0	0.0200	
beta-BHC									
delta-BHC									
gamma-BHC (Lindane)					0	0.0200			
Heptachlor	10.47	11.74	114,341	100,264	5,717,050	1.00	5,013,200	0.0200	
Aldrin									
Heptachlor Epoxide									
Endosulfan I					0	0.0200	0	0.0200	
Dieldrin					0	0.0400	0	0.0400	
4,4'-DDE					0	0.0400			
Endrin									
Endosulfan II									
4,4'-DDD	21.38	22.22	133,522	110,277	3,338,050	1.00	2,756,925	0.0400	
Endosulfan Sulfate									
4,4'-DDT					0	0.0400			
Methoxychlor					0	0.2000	0	0.2000	
Endrin Ketone									
Endrin Aldehyde									
alpha-Chlordane									
gamma-Chlordane									
TCX	4.17	4.99	94,671	91,554	4,733,550	1.00	4,577,700	0.0200	
DCB					0	0.0400	0	0.0400	
INDBM	Page: 1,446		Date:		Time:				
	DB-1701 RT1	DB-608 RT2	DB-1701 Resp 1	DB-608 Resp 2	#1 Calc. Cal. Fac.	R/C	DB-608 #2 Calc. Cal. Fac.	R/C	
alpha-BHC									
beta-BHC									
delta-BHC	12.99	10.37	68,163	62,621	3,408,150	1.00	3,131,050	0.0200	
gamma-BHC (Lindane)					0	0.0200	0	0.0200	
Heptachlor									
Aldrin									
Heptachlor Epoxide					0	0.0200	0	0.0200	
Endosulfan I					0	0.0200			
Dieldrin									
4,4'-DDE					0	0.0400			
Endrin									
Endosulfan II	21.53	22.38	159,626	138,361	3,990,650	1.00	3,459,025	0.0400	
4,4'-DDD									
Endosulfan Sulfate					0	0.0400			
4,4'-DDT									
Methoxychlor					0	0.0400	0	0.0400	
Endrin Ketone					0	0.0400	0	0.0400	
Endrin Aldehyde					5,233,200	1.00	4,442,200	0.0200	
alpha-Chlordane	17.18	18.11	104,664	88,844		1.00		0.0200	
gamma-Chlordane					0	0.0200			
TCMX									
DCB									

Initial Calibration									
INDAMH									
	Page: 1,431	Date:	Time:			Sheet1			
	DB-1701 RT1	DB-608 RT2	DB-1701 Resp 1	DB-608 Resp 2	#1 Calc. Cal. Fac.	R/C	#2 Calc. Cal. Fac.	R/C	HIGH DB-1701 RT Window #1 From To OK
alpha-BHC					0	0.0800	0	0.0800	DB-608 RT Window #2 From To OK
beta-BHC									
delta-BHC									
gamma-BHC (Lindane)					0	0.0800	0	0.0800	
Heptachlor Aldrin	11.74			433,050	0	0.0800	5,413,125	0.0800	11.59 11.69 13.33 13.43
Heptachlor Epoxide									16.27 16.41
Endosulfan I	18.39		856,686		0	0.0800	0	0.0800	18.03 18.17
Dieldrin					5,354,288	0.1600	0	0.1600	19.55 19.69
4,4'- DDE									17.66 17.80 19.33 19.47
Endrin	21.47		596,694		3,729,338	0.1600	0	0.1600	21.30 21.44
Endosulfan II					0	0.1600	0	0.1600	22.22 22.36
4,4' - DDD									22.05 22.19
Endosulfan Sulfate	22.19		617,809		3,861,306	0.1600	0	0.1600	23.45 23.59
4,4'-DDT					0	0.8000	0	0.8000	27.54 27.68
Methoxychlor									27.82 27.96
Endrin Kelone									23.23 23.37
Endrin Aldehyde									17.08 17.22
alpha-Chlordane									16.80 16.94
gamma-Chlordane									17.13 17.27
TCX					0	0.0800	0	0.0800	4.12 4.22
DCB					0	0.1600	0	0.1600	30.08 30.28
									33.76 33.96

Data Validation Summary Table
For the Frost Street Sites

Soil and Water Pesticide and PCB Analyses - Method 95-3
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Soil Sample 101SS-1 (Lab. #: 78279)					
		% Moisture = 7			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.8 U	1.8 U		
beta-BHC	1.7 U	1.8 U	1.8 U		
delta-BHC	1.7 U	1.8 U	1.8 U		
gamma-BHC (Lindane)	1.7 U	1.8 U	1.8 U		
Heptachlor	1.7 U	1.8 U	1.8 U		
Aldrin	1.7 U	1.8 U	1.8 U		
Heptachlor Epoxide	1.7 U	1.8 U	1.8 U		
Endosulfan I	1.7 U	1.8 U	1.8 U		
Dieldrin	3.2 U	6.9 P	7.2 P		
4,4'- DDE	3.2 U	12 P	12.0 P		
Endrin	3.2 U	17	18.0 U		
Endosulfan II	3.2 U	3.6 U	3.4 U		
4,4' - DDD	3.2 U	3.6 U	3.4 U		
Endosulfan Sulfate	3.2 U	3.6 U	3.4 U		
4,4'-DDT	3.2 U	14 P	15 P	J qualify	15
Methoxychlor	17 U	18 U	18 U		
Endrin Ketone	3.2 U	4.9	5.3 U		
Endrin Aldehyde	3.2 U	3.6 U	3.4 U		
alpha-Chlordane	1.7 U	6.4 P	6.4 P		
gamma-Chlordane	1.7 U	7.3 P	7.9 P		
Toxaphene	170 U	180 U	180 U		
Aroclor-1016	32 U	36 U	34 U		
Aroclor-1221	65 U	72 U	69 U		
Aroclor-1232	32 U	36 U	34 U		
Aroclor-1242	32 U	36 U	34 U		
Aroclor-1248	32 U	36 U	34 U		
Aroclor-1254	32 U	36 U	34 U		
Aroclor-1260	32 U	36 U	34 U		

Data Validation Summary Table
For the Frost Street Sites

Soil and Water Pesticide and PCB Analyses - Method 95-3

Samples Received: August 19th through 20th, 1998

Sample Delivery Group: G2812

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Water Sample S.S.E.B.-1 (Lab. #: 78545)					
Pesticides & PCBs	(Undiluted)				
alpha-BHC	0.050 U	0.051 U	0.051 U		
beta-BHC	0.050 U	0.051 U	0.051 U		
delta-BHC	0.050 U	0.051 U	0.051 U		
gamma-BHC (Lindane)	0.050 U	0.051 U	0.051 U		
Heptachlor	0.050 U	0.051 U	0.051 U		
Aldrin	0.050 U	0.051 U	0.051 U		
Isodrin	0.10 U	0.10 U	0.10 U		
Heptachlor Epoxide	0.050 U	0.051 U	0.051 U		
Endosulfan I	0.050 U	0.051 U	0.051 U		
Dieldrin	0.10 U	0.10 U	0.10 U		
4,4'- DDE	0.10 U	0.10 U	0.10 U		
Endrin	0.10 U	0.10 U	0.10 U		
Endosulfan II	0.10 U	0.10 U	0.10 U		
4,4' - DDD	0.10 U	0.10 U	0.10 U		
Endosulfan Sulfate	0.10 U	0.10 U	0.10 U		
4,4'-DDT	0.10 U	0.10 U	0.10 U		
Methoxychlor	0.50 U	0.51 U	0.51 U		
Endrin Ketone	0.10 U	0.10 U	0.10 U		
Endrin Aldehyde	0.10 U	0.10 U	0.10 U		
alpha-Chlordane	0.050 U	0.051 U	0.051 U		
gamma-Chlordane	0.050 U	0.051 U	0.051 U		
Toxaphene	5.0 U	5.1 U	5.1 U		
Aroclor-1016	1.0 U	1.0 U	1.0 U		
Aroclor-1221	2.0 U	2.0 U	2.0 U		
Aroclor-1232	1.0 U	1.0 U	1.0 U		
Aroclor-1242	1.0 U	1.0 U	1.0 U		
Aroclor-1248	1.0 U	1.0 U	1.0 U		
Aroclor-1254	1.0 U	1.0 U	1.0 U		
Aroclor-1260	1.0 U	1.0 U	1.0 U		

Instrument Detection Limits

The instrument detection limits appeared to have been analyzed one month beyond the NYS DEC ASP 6 month limit.

Sample Results

No other problems were detected with any of the samples.

Data Validation Summary Table
For the Frost Street Sites

Soil and Water Pesticide and PCB Analyses - Method 95-3
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Soil Sample 101SS-2 (Lab. #: 78277)					
		% Moisture = 3			
Pesticides & PCBs	(Undiluted)				
alpha-BHC	1.7 U	1.8 U	1.8 U		
beta-BHC	1.7 U	1.8 U	1.8 U		
delta-BHC	1.7 U	1.8 U	1.8 U		
gamma-BHC (Lindane)	1.7 U	1.8 U	1.8 U		
Heptachlor	1.7 U	1.8 U	1.8 U		
Aldrin	1.7 U	1.8 U	1.8 U		
Heptachlor Epoxide	1.7 U	1.8 U	1.8 U		
Endosulfan I	1.7 U	1.8 U	1.8 U		
Dieldrin	3.2 U	3.4 U	3.4 U		
4,4'- DDE	3.2 U	3.9 P	4.0 P		
Endrin	3.2 U	3.4 U	3.4 U		
Endosulfan II	3.2 U	3.4 U	3.4 U		
4,4' - DDD	3.2 U	3.4 U	3.4 U		
Endosulfan Sulfate	3.2 U	3.4 U	3.4 U		
4,4'-DDT	3.2 U	15 P	16 P	J	15
Methoxychlor	17 U	18 U	18 U		
Endrin Ketone	3.2 U	3.4 U	3.4 U		
Endrin Aldehyde	3.2 U	3.4 U	3.4 U		
alpha-Chlordane	1.7 U	7.7 P	7.8 P		
gamma-Chlordane	1.7 U	6.6 P	6.9 P		
Toxaphene	170 U	180 U	180 U		
Aroclor-1016	32 U	34 U	34 U		
Aroclor-1221	65 U	69 U	69 U		
Aroclor-1232	32 U	34 U	34 U		
Aroclor-1242	32 U	34 U	34 U		
Aroclor-1248	32 U	34 U	34 U		
Aroclor-1254	32 U	34 U	34 U		
Aroclor-1260	32 U	34 U	34 U		

Holding Times

All extractions and analyses were performed within the required holding times.

Surrogate Recoveries

All surrogate recoveries were within the required quality assurance limits.

Matrix Spike

Soil sample 101SS-1 (Lab. #: 78279) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits.

A water matrix spike was not analyzed.

Blank Spike

All soil blank spike recoveries were within the required quality assurance limits.

A water blank spike was not analyzed.

Initial Calibrations

The percent RSD of DCB (22%) was above the 20% quality assurance limit in the DB-608 column initial calibration. The data were not required to be qualified for the high DCB % RSD.

The percent RSD of each of the single component pesticides must be less than 20%. The percent RSD of the two surrogates must be less than or equal to 30%. Up to two single compound target compounds per column may exceed the 20% limit for the %RSD, but those compounds must have a percent RSD of less than or equal to 30.0%. All of these requirements were met in the initial calibration.

The NYS DEC required concentrations did not appear to have been used for the INDH standard.

No other problems were detected with the initial calibrations.

Analyte Resolution

The analyte resolution form on page 503 initially noted that the percent resolution for all compounds was 0%. This form was revised in the laboratory's 1/8 resubmission.

All other percent resolutions were greater than 60% on both the RTX-5 and DB1701 columns.

Performance Evaluation Mixtures

All percent resolutions were greater than 90% on both the DB-608 and DB-1701 columns.

The RPD of DDT in the PEM03 standard on the DB-1701 column (27%) was above the 25% quality assurance limit. Both soil samples were analyzed just prior to this standard. The DDT in both of these samples were flagged with the "J" qualifier and footnoted with #15 in the data validation summary table. The DDT concentrations detected in these two samples should be considered to be estimated values.

The relative percent difference of the calculated amount and the true amount for each of the single component pesticides and surrogates in the PEMs must be less than or equal to 25%. This requirement was satisfied in all of the PEM standards in this sample delivery group.

No other problems were found with any of the performance evaluation mixtures.

Continuing Calibrations - IND A & IND B

All percent resolutions were greater than 90% on both the DB-608 and DB-1701 columns.

The relative percent difference of the calculated amount and the true amount for each of the single component pesticides and surrogates in the INDA and INDB standards must be less than or equal to 25%.

No problems were detected with the continuing calibrations.

Surrogate Retention Times

All surrogate retention times were within the required limits for both surrogates and on both columns.

Florisil Cartridge Check

All recoveries were within the 80% - 120% quality assurance limits.

GPC Calibration

No problems were detected with the GPC calibrations.

Method Blanks

No compounds were detected in any of the method blanks.

Calibration Blanks

No compounds were detected in any of the calibration blanks.

Field Blanks

A field blank was not collected with this sample delivery group.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For the Frost Street Sites**

Soil and Water Pesticide and PCB Analyses - Method 95-3

Samples Received: August 19th through 20th, 1998

Sample Delivery Group: G2812

Laboratory Reference Numbers:

Received 8/19

Soil Sample 101SS-2	78277
Soil Sample 101SS-1	78279
Soil Sample 101SS-1MS	78279MS
Soil Sample 101SS-1MSD	78279MSD

Received 8/20

Water Sample S.S.E.B.-1	78545

Soil and water samples were received for analyses of the pesticide and PCB TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- Data Completeness
- * - Holding Times
- * - Laboratory Blanks
 - Field Blanks
- * - Surrogate Recoveries
- * - Surrogate Retention Times
 - Matrix Spike / Matrix Spike Duplicate
 - Blank Spike
 - Calibrations
- * - Analyte Resolutions
- * - Performance Evaluation Mixtures
 - IND A and IND B Standards
- * - Florisil Cartridge Check
- * - GPC Calibration
- * - Compound Identification
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 27 1999

For Hazardous Waste Section

DATA VALIDATION SUMMARY

The analyte resolution form on page 503 initially noted that the percent resolution for all compounds was 0%. This form was revised in the laboratory's 1/8 resubmission.

Only selected peaks were reported in the raw data for the Aroclors. All of the peaks are generally printed out from each chromatogram. The laboratory is currently awaiting a decision from the NYS DEC on this requirement.

The instrument detection limits were analyzed one month beyond the NYS DEC ASP 6 month limit.

No other significant problems were found with the analyses of these samples which would affect the end use of the data.



Nancy J. Potak

December 14, 1998

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	2-Chloronaphthalene	4-Chlorophenyl-phenylether
PPB		
20	$754977/1203043 * 2.000 = 1.255$	$338322/1203043 * 2.000 = 0.562$
50	$1755485/1278445 * 0.800 = 1.098$	$739807/1278445 * 0.800 = 0.463$
80	$2606617/1335517 * 0.500 = 0.976$	$1046614/1335517 * 0.500 = 0.392$
120	$3396073/1284018 * 0.333 = 0.881$	$1466093/1284018 * 0.333 = 0.380$
160	$4000548/1234330 * 0.250 = 0.810$	$1865564/1234330 * 0.250 = 0.378$
AV. RRF = 1.004	%RSD = 17.6 %	AV. RRF = 0.435 %RSD = 18.2%

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS1

Tune File ID: R5440

Calibration File ID: R5441

Initial Calibration File ID: R5424

Associated Samples: SSEB-1, SBLKSB223B, 4534BS, 101SS-2, 101SS-1, 101SS-1MS, 101SS-1MSD

Acceptable: yes

Date: 09/03/98

Date: 09/02/98

Time Requirements Met: yes

Page: 373

Page: 315

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 2 of 2)

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: 4-Methylphenol
 PPB

Fluorene

50 453471/200128 * 0.800 = 1.813

1151311/552133 * 0.800 = 1.668

PERCENT DIFFERENCE:

$$(1.499 - 1.813) / 1.499 * 100 = -20.947298$$

$$(1.385 - 1.668) / 1.385 * 100 = -20.433213$$

WATER METHOD BLANK: SBLKWB23A (Page 401)

Compound

ppb

<CRDL

No Compounds were detected in this blank

SOIL METHOD BLANK: SBLKSB223B (Page)

Compound

ppb

<CRDL

Unknown Aldol Condensate (9.41)

3700AJ

NA

Unknown Aldol Condensate (10.15)

33000AJ

NA

Unknown Aldol Condensate (10.85)

210AJ

NA

Unknown Aldol Condensate (11.46)

2500AJ

NA

Unknown (12.28)

210J

NA

Unknown Aldol Condensate (12.57)

280AJ

NA

Unknown (12.80)

87J

NA

Unknown Aldol Condensate (12.86)

330AJ

NA

Unknown (14.16)

120J

NA

SEMIVOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

(Page 1 of 2)

Instrument ID: XBNAMS1

Tune File ID: R5423

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: R5424

Date: 09/02/98

Page: 315

Associated Samples: SSEB-1, SBLKSB223B, 4534BS, 101SS-2, 101SS-1, 101SS-1MS, 101SS-1MSD

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether*	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	21%	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: no

Footnote: 15

SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	Acenaphthylene	Indeno(1,2,3-cd)pyrene
PPB		
20	$649708/668568 * 2.000 = 1.944$	$676293/1096403 * 2.000 = 1.234$
50	$1434807/606889 * 0.800 = 1.891$	$1488016/936372 * 0.800 = 1.271$
80	$2504575/669151 * 0.500 = 1.871$	$2712918/1058378 * 0.500 = 1.282$
120	$3353448/614097 * 0.333 = 1.818$	$4494176/984742 * 0.333 = 1.521$
160	$4503946/614262 * 0.250 = 1.833$	$5759892/957389 * 0.250 = 1.504$
AV. RRF = 1.872	%RSD = 2.6%	AV. RRF = 1.362 %RSD = 10.2%

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 1 of 2)**

Instrument ID: XBNAMS1

Tune File ID: R5286

Calibration File ID: R5287

Initial Calibration File ID: R5047

Associated Samples: SBLKWB23A

Acceptable: yes

Date: 08/26/98

Date: 08/16/98

Time Requirements Met: yes

Page: 364

Page: 267

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)**

**Soil and Water Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812
Laboratory Reference Numbers:**

Received 8/19

Soil Sample 101SS-2	78277
Soil Sample 101SS-1	78279
Soil Sample 101SS-1MS	78279MS
Soil Sample 101SS-1MSD	78279MSD

Received 8/20

Water Sample S.S.E.B.-1	78545

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 27 1999

For Hazardous Waste Section

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 1 of 2)**

Instrument ID: XBNAMS1

Tune File ID: R5045

Initial Calibration File ID: R5047

Associated Samples: SBLKWB23A

Acceptable: yes

Date: 08/16/98

Time Requirements Met: yes

Page: 267

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether*	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

Footnote:

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Page 4

Soil and Water Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA			
	Method	Lab.	Validation			
	Blank	Reported	Reported		Qualifiers	Footnotes
	Conc.	Conc.	Conc.			
Sample / Analyte	(PPB)	(PPB)	Decision			
Soil Sample 101SS-1 (Lab. #: 78279) Received 8/19						
Non-Target Semivolatile Organics						
Unknown Aldol Condensate (9.17)	ND	3,000 AJ	2,865 AJ		negate	64
Unknown Aldol Condensate (9.90)	ND	48,000 AJ	46,548 AJ		negate	64
Unknown Aldol Condensate (11.39)	ND	2,600 AJ	2,506 AJ		negate	64
Hexadecanoic Acid (21.48)	ND	1,500 NJ	1,432 NJ		negate	64
Unknown (22.79)	ND	780 J	716 J			
C20H12 PAH (28.36)	ND	720 J	716 J			
Unknown (32.20)	ND	1,400 J	1,432 J			
Unknown (35.34)	ND	940 J	1,074 J			

Soil and Water Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812	Method	Lab.	QA		
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
Sample / Analyte	(PPB)	(PPB)	Conc.	Qualifiers	Footnotes
			Decision		
Water Sample S.S.E.B. - 1 (Lab. #: 78545) Received 8/20					
TCL Semivolatile Organics		(Undiluted)			
Phenol	10 U	11 U	11 U		
bis(2-Chloroethyl)Ether	10 U	11 U	11 U		
2-Chlorophenol	10 U	11 U	11 U		
1,3-Dichlorobenzene	10 U	11 U	11 U		
1,4-Dichlorobenzene	10 U	11 U	11 U		
1,2-Dichlorobenzene	10 U	11 U	11 U		
2-Methylphenol	10 U	11 U	11 U		
bis(2-Chloroisopropyl)ether	10 U	11 U	11 U		
4-Methylphenol	10 U	11 U	11 U		
N-Nitroso-di-n-propylamine	10 U	11 U	11 U		
Hexachloroethane	10 U	11 U	11 U		
Nitrobenzene	10 U	11 U	11 U		
Isophorone	10 U	11 U	11 U		
2-Nitrophenol	10 U	11 U	11 U		
2,4-Dimethylphenol	10 U	11 U	11 U		
bis(2-Chloroethoxy)methane	10 U	11 U	11 U		
2,4-Dichlorophenol	10 U	11 U	11 U		
1,2,4-Trichlorobenzene	10 U	11 U	11 U		
Naphthalene	10 U	11 U	11 U	J	qualify
4-Chloroaniline	10 U	11 U	11 U		15
Hexachlorobutadiene	10 U	11 U	11 U		
4-Chloro-3-methylphenol	10 U	11 U	11 U		
2-Methylnaphthalene	10 U	11 U	11 U		
Hexachlorocyclopentadiene	10 U	11 U	11 U		
2,4,6-Trichlorophenol	10 U	11 U	11 U		
2,4,5-Trichlorophenol	25 U	28 U	28 U		
2-Chloronaphthalene	10 U	11 U	11 U		
2-Nitroaniline	25 U	28 U	28 U		
Dimethylphthalate	10 U	11 U	11 U		
Acenaphthylene	10 U	11 U	11 U		
2,6-Dinitrotoluene	10 U	11 U	11 U		
3-Nitroaniline	25 U	28 U	28 U		
Acenaphthene	10 U	11 U	11 U		
2,4-Dinitrophenol	25 U	28 U	28 U		
4-Nitrophenol	10 U	11 U	11 U		
Dibenzofuran	10 U	11 U	11 U		
2,4-Dinitrotoluene	10 U	11 U	11 U		
Diethylphthalate	10 U	11 U	11 U		
4-Chlorophenyl-phenylether	10 U	11 U	11 U		
Fluorene	10 U	11 U	11 U		
4-Nitroaniline	25 U	28 U	28 U		
4,6-Dinitro-2-methylphenol	25 U	28 U	28 U		
N-Nitrosodiphenylamine (1)	10 U	11 U	11 U		
4-Bromophenyl-phenylether	10 U	11 U	11 U		
Hexachlorobenzene	10 U	11 U	11 U		
Pentachlorophenol	25 U	28 U	28 U		
Phenanthrene	10 U	11 U	11 U		
Anthracene	10 U	11 U	11 U		
Carbazole	10 U	11 U	11 U		
Di-n-Butylphthalate	10 U	11 U	11 U		
Fluoranthene	10 U	11 U	11 U		
Pyrene	10 U	11 U	11 U		
Butylbenzylphthalate	10 U	11 U	11 U		
3,3'-Dichlorobenzidine	10 U	11 U	11 U		
Benzo(a)anthracene	10 U	11 U	11 U		
Chrysene	10 U	11 U	11 U		
Bis(2-Ethylhexyl)phthalate	10 U	11 U	3 U		
Di-n-octylphthalate	10 U	11 U	11 U		
Benzo(b)fluoranthene	10 U	11 U	11 U		
Benzo(k)fluoranthene	10 U	11 U	11 U		
Benzo(a)pyrene	10 U	11 U	11 U		
Indeno(1,2,3-cd)pyrene	10 U	11 U	11 U		
Dibenz(a,h)anthracene	10 U	11 U	11 U		
Benzo(g,h,i)perylene	10 U	11 U	11 U		
Non-Target Semivolatile Organics					
Formamide, N,N-Dimethyl- (7.91)	ND	8 NJ	8 NJ		

Soil and Water Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812			QA			
	Method	Lab.	Validation			
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.		Qualifiers	Footnotes
Sample / Analyte	(PPB)	(PPB)	Decision			
Soil Sample 101SS-2 (Lab. #: 78277) Received 8/19						
Non-Target Semivolatile Organics						
Unknown Aldol Condensate (8.56)	ND	2,600 AJ	2,583 AJ		negate	64
Unknown Aldol Condensate (9.18)	ND	2,400 AJ	2,411 AJ		negate	64
Unknown Aldol Condensate (9.45)	3,700 AJ	830 AJ	861 AJ	B	negate	64
Unknown Aldol Condensate (9.58)	ND	1,400 AJ	1,378 AJ		negate	64
Unknown Aldol Condensate (9.93)	ND	33,000 AJ	32,722 AJ		negate	64
Unknown Aldol Condensate (10.04)	ND	360 AJ	344 AJ		negate	64
Unknown Aldol Condensate (11.39)	ND	2,000 AJ	2,067 AJ		negate	64
Ethane, 1,1,2,2-Tetrachloro- (11.52)	ND	360 J	344 J		negate	58
Unknown Organic Acid (14.24)	ND	2,800 J	2,756 J			
Unknown (23.63)	ND	470 J	517 J			
Unknown (24.83)	ND	370 J	344 J			
Unknown (28.02)	ND	360 J	344 J			
C20H12 PAH (28.37)	ND	660 J	689 J			
Unknown (29.63)	ND	840 J	861 J			
Unknown (29.82)	ND	460 J	517 J			
Unknown (29.90)	ND	610 J	689 J			
Unknown (30.43)	ND	740 J	689 J			

Soil and Water Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812		Method	Lab.	QA		
	Blank	Reported	Validation			
	Conc.	Conc.	Reported			
			Conc.		Qualifiers	Footnotes
Sample / Analyte	(PPB)	(PPB)	Decision			
Soil Sample 101SS-1 (Lab. #: 78279) Received 8/19						
TCL Semivolatile Organics		(Diluted 10X)	% Moisture = 7			
Phenol	330 U	3,600 U	3,581 U			
bis(2-Chloroethyl)Ether	330 U	3,600 U	3,581 U			
2-Chlorophenol	330 U	3,600 U	3,581 U			
1,3-Dichlorobenzene	330 U	3,600 U	3,581 U			
1,4-Dichlorobenzene	330 U	3,600 U	3,581 U			
1,2-Dichlorobenzene	330 U	3,600 U	3,581 U			
2-Methylphenol	330 U	3,600 U	3,581 U			
bis(2-Chloroisopropyl)ether	330 U	3,600 U	3,581 U			
4-Methylphenol	330 U	3,600 U	3,581 U			
N-Nitroso-di-n-propylamine	330 U	3,600 U	3,581 U			
Hexachloroethane	330 U	3,600 U	3,581 U			
Nitrobenzene	330 U	3,600 U	3,581 U			
Isophorone	330 U	3,600 U	3,581 U			
2-Nitrophenol	330 U	3,600 U	3,581 U			
2,4-Dimethylphenol	330 U	3,600 U	3,581 U			
bis(2-Chloroethoxy)methane	330 U	3,600 U	3,581 U			
2,4-Dichlorophenol	330 U	3,600 U	3,581 U			
1,2,4-Trichlorobenzene	330 U	3,600 U	3,581 U			
Naphthalene	330 U	3,600 U	3,581 U	J	qualify	15
4-Chloroaniline	330 U	3,600 U	3,581 U			
Hexachlorobutadiene	330 U	3,600 U	3,581 U			
4-Chloro-3-methylphenol	330 U	3,600 U	3,581 U			
2-Methylnaphthalene	330 U	3,600 U	3,581 U			
Hexachlorocyclopentadiene	330 U	3,600 U	3,581 U			
2,4,6-Trichlorophenol	330 U	3,600 U	3,581 U			
2,4,5-Trichlorophenol	800 U	8,600 U	8,952 U			
2-Chloronaphthalene	330 U	3,600 U	3,581 U			
2-Nitroaniline	800 U	8,600 U	8,952 U			
Dimethylphthalate	330 U	3,600 U	3,581 U			
Acenaphthylene	330 U	3,600 U	3,581 U			
2,6-Dinitrotoluene	330 U	3,600 U	3,581 U			
3-Nitroaniline	800 U	8,600 U	8,952 U			
Acenaphthene	330 U	45 J	36 J			
2,4-Dinitrophenol	800 U	8,600 U	8,952 U			
4-Nitrophenol	330 U	3,600 U	3,581 U			
Dibenzofuran	330 U	3,600 U	3,581 U			
2,4-Dinitrotoluene	330 U	3,600 U	3,581 U			
Diethylphthalate	330 U	3,600 U	3,581 U			
4-Chlorophenyl-phenylether	330 U	3,600 U	3,581 U			
Fluorene	330 U	67 J	72 J			
4-Nitroaniline	800 U	8,600 U	8,952 U			
4,6-Dinitro-2-methylphenol	800 U	8,600 U	8,952 U			
N-Nitrosodiphenylamine (1)	330 U	3,600 U	3,581 U			
4-Bromophenyl-phenylether	330 U	3,600 U	3,581 U			
Hexachlorobenzene	330 U	3,600 U	3,581 U			
Pentachlorophenol	800 U	8,600 U	8,952 U			
Phenanthrene	330 U	1,200 J	1,074 J			
Anthracene	330 U	190 J	179 J			
Carbazole	330 U	160 J	143 J			
Di-n-Butylphthalate	330 U	3,600 U	3,581 U			
Fluoranthene	330 U	2,300 J	2,148 J			
Pyrene	330 U	1,800 J	1,790 J			
Butylbenzylphthalate	330 U	3,600 U	3,581 U			
3,3'-Dichlorobenzidine	330 U	3,600 U	3,581 U			
Benzo(a)anthracene	330 U	890 J	716 J			
Chrysene	330 U	1,200 J	3,581 J			
Bis(2-Ethylhexyl)phthalate	51 J	1,100 JB	1,074 JB		negate	1
Di-n-octylphthalate	330 U	3,600 U	3,581 U			
Benzo(b)fluoranthene	330 U	1,400 J	1,432 J			
Benzo(k)fluoranthene	330 U	570 J	716 J			
Benzo(a)pyrene	330 U	910 J	716 J			
Indeno(1,2,3-cd)pyrene	330 U	580 J	716 J			
Dibenz(a,h)anthracene	330 U	150 J	143 J			
Benzo(g,h,i)perylene	330 U	520 J	358 J			

since it is a target compound in the volatile fraction. This compound was footnoted with #58 in the data validation summary table.

Soil Sample 101SS-1 (Lab. #: 78279)

This soil sample was analyzed at a 10X dilution even though there did not appear to be a high concentration of any semivolatile organics in the sample. The laboratory must detail the reason for this dilution in the case narrative.

No other problems were found with the reported results of any of the samples of this delivery group.

Soil and Water Semivolatile Organic Analyses - Method 95-2
Samples Received: August 19th through 20th, 1998
Sample Delivery Group: G2812

Sample Delivery Group: G2812		QA				
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes	
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.			
	(PPB)	(PPB)	Decision			
Soil Sample 101SS-2 (Lab. #: 78277) Received 8/19						
TCL Semivolatile Organics		(Diluted 5X)				
	% Moisture = 3					
Phenol	330 U	30 J	34 J			
bis(2-Chloroethyl)Ether	330 U	1,700 U	1,722 U			
2-Chlorophenol	330 U	1,700 U	1,722 U			
1,3-Dichlorobenzene	330 U	1,700 U	1,722 U			
1,4-Dichlorobenzene	330 U	1,700 U	1,722 U			
1,2-Dichlorobenzene	330 U	1,700 U	1,722 U			
2-Methylphenol	330 U	1,700 U	1,722 U			
bis(2-Chloroisopropyl)ether	330 U	1,700 U	1,722 U			
4-Methylphenol	330 U	1,700 U	1,722 U			
N-Nitroso-di-n-propylamine	330 U	1,700 U	1,722 U			
Hexachloroethane	330 U	1,700 U	1,722 U			
Nitrobenzene	330 U	1,700 U	1,722 U			
Isophorone	330 U	1,700 U	1,722 U			
2-Nitrophenol	330 U	1,700 U	1,722 U			
2,4-Dimethylphenol	330 U	1,700 U	1,722 U			
bis(2-Chloroethoxy)methane	330 U	1,700 U	1,722 U			
2,4-Dichlorophenol	330 U	1,700 U	1,722 U			
1,2,4-Trichlorobenzene	330 U	1,700 U	1,722 U			
Naphthalene	330 U	1,700 U	1,722 U	J	qualify 15	
4-Chloroaniline	330 U	1,700 U	1,722 U			
Hexachlorobutadiene	330 U	1,700 U	1,722 U			
4-Chloro-3-methylphenol	330 U	1,700 U	1,722 U			
2-Methylnaphthalene	330 U	1,700 U	1,722 U			
Hexachlorocyclopentadiene	330 U	1,700 U	1,722 U			
2,4,6-Trichlorophenol	330 U	1,700 U	1,722 U			
2,4,5-Trichlorophenol	800 U	4,100 U	4,306 U			
2-Chloronaphthalene	330 U	1,700 U	1,722 U			
2-Nitroaniline	800 U	4,100 U	4,306 U			
Dimethylphthalate	330 U	1,700 U	1,722 U			
Acenaphthylene	330 U	48 J	52 J			
2,6-Dinitrotoluene	330 U	1,700 U	1,722 U			
3-Nitroaniline	800 U	4,100 U	4,306 U			
Acenaphthene	330 U	47 J	52 J			
2,4-Dinitrophenol	800 U	4,100 U	4,306 U			
4-Nitrophenol	330 U	1,700 U	1,722 U			
Dibenzofuran	330 U	28 J	34 J			
2,4-Dinitrotoluene	330 U	1,700 U	1,722 U			
Diethylphthalate	330 U	1,700 U	1,722 U			
4-Chlorophenyl-phenylether	330 U	1,700 U	1,722 U			
Fluorene	330 U	66 J	69 J			
4-Nitroaniline	800 U	4,100 U	4,306 U			
4,6-Dinitro-2-methylphenol	800 U	4,100 U	4,306 U			
N-Nitrosodiphenylamine (1)	330 U	1,700 U	1,722 U			
4-Bromophenyl-phenylether	330 U	1,700 U	1,722 U			
Hexachlorobenzene	330 U	1,700 U	1,722 U			
Pentachlorophenol	800 U	4,100 U	4,306 U			
Phenanthrene	330 U	940 J	861 J			
Anthracene	330 U	190 J	172 J			
Carbazole	330 U	130 J	138 J			
Di-n-Butylphthalate	330 U	1,700 U	1,722 U			
Fluoranthene	330 U	1,900	1,722			
Pyrene	330 U	1,400 J	1,378 J			
Butylbenzylphthalate	330 U	1,700 U	1,722 U			
3,3'-Dichlorobenzidine	330 U	1,700 U	1,722 U			
Benzo(a)anthracene	330 U	740 J	689 J			
Chrysene	330 U	960 J	1,033 J			
Bis(2-Ethylhexyl)phthalate	51 J	360 JB	344 JB	negate	1	
Di-n-octylphthalate	330 U	1,700 U	1,722 U			
Benzo(b)fluoranthene	330 U	1,300 J	1,206 J			
Benzo(k)fluoranthene	330 U	510 J	517 J			
Benzo(a)pyrene	330 U	850 J	861 J			
Indeno(1,2,3-cd)pyrene	330 U	350 J	344 J			
Dibenz(a,h)anthracene	330 U	110 J	103 J			
Benzo(g,h,i)perylene	330 U	320 J	344 J			

Holding Times

All other samples were extracted and analyzed within the holding times required by the NYS DEC's ASP program.

Tunes

No problems were detected with any of the tunes.

Surrogate Compound Recoveries

All surrogate compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

The percent RSD of naphthalene (21%) was just above the 20.5% quality assurance limit in the initial calibration associated with the analyses of all of the samples of this delivery group. Naphthalene was not detected in any of the samples of this delivery group.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 4 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Soil sample 101SS-1 (Lab. #: 78279) of this sample delivery group was used for the medium level matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits with the following exceptions:

Compound	MS %Rec	MSD %Rec	QC Limits	RPD	Limits
Phenol			26-90		35
2-Chlorophenol			25-102		50
1,4-Dichlorobenzene			28-104		27
N-Nitroso-di-n-prop.			41-126		38
1,2,4-Trichlorobenzene			38-107		23
4-Chloro-3-methylphenol			26-103		33
Acenaphthene		36%	31-137	36%	19
4-Nitrophenol			11-114		50
2,4-Dinitrotoluene			28-89		47
Pentachlorophenol			17-109		47
Pyrene	28%	161%	35-142	141%	36

It is possible that some low concentrations of semivolatile compounds may have been overlooked in these samples. The very high RPD of pyrene may indicate that the sample is somewhat non-homogenous or that interferences are present.

A water matrix spike was not analyzed.

Blank Spike

All soil blank spike recoveries were within the required quality assurance limits.

A water blank spike was not analyzed.

Method Blanks

No compounds were detected in the one water method blank.

Bis(2-Ethylhexyl)phthalate (51J ug/kg) and several non-target compounds were found in the method blanks.

Bis(2-ethylhexyl)phthalate was negated from both soil samples due to its presence in the method blank.

Several aldols were detected in both soil samples. All of these should be negated since their presence is most likely an extraction artifact. All of the aldols were flagged with the "J" qualifier and footnoted with #64 in the data validation summary table.

Field Blank

A field blank was not associated with the samples of this delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Slightly different concentrations were calculated for the semivolatile compounds during the data validation than were reported by the laboratory. The discrepancies are due to the number of significant figures reported by the laboratory in their raw data. They only used one significant figure in their raw data print out. These differences do not significantly affect the end use of the data. Unless otherwise noted, the concentration reported by the laboratory should be used for all final reporting.

Soil Sample 101SS-2 (Lab. #: 78277)

This soil sample was analyzed at a 5X dilution even though there did not appear to be a high concentration of any semivolatile organics in the sample. The laboratory must detail the reason for this dilution in the case narrative.

The laboratory reported the presence of 1,1,2,2-tetrachloroethane as a non-target compound in this fraction. This should be negated from the non-target list

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil and Water Semivolatile Organic Analyses - Method 95-2

Samples Received: August 19th through 20th, 1998

Sample Delivery Group: G2812

Laboratory Reference Numbers:

Received 8/19

Soil Sample 101SS-2	78277
Soil Sample 101SS-1	78279
Soil Sample 101SS-1MS	78279MS
Soil Sample 101SS-1MSD	78279MSD

Received 8/20

Water Sample S.S.E.B.-1	78545

Soil and water samples were received for analyses of the ^{semi}volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
 - Matrix Spike / Matrix Spike Duplicate
 - Blank Spike
- * - Compound Identification
 - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

JAN 27 1999

For Hazardous Waste Section

DATA VALIDATION SUMMARY

Several samples were also noted on the chain of custody form as being analyzed for metals. This omission of this sample was not addressed in the case narrative. The reason for this discrepancy must be noted in the case narrative.

Both soil samples were analyzed at 5X or 10X dilutions even though there did not appear to be a high concentration of any semivolatile organics in the sample.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
December 12, 1998

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low

Tune File ID: K4037

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: K4038

Date: 08/20/98

Page: 89

Associated Samples: VBLKKV233, DWA-7 40-44, 101SS-2, 101SS-1, 101SS-1MS, 101SS-1MSD

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

* Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Trichloroethene
PPB		
10	94172/379232 * 5.000 = 1.242	138699/1480362 * 5.000 = 0.468
20	209164/385406 * 2.500 = 1.357	288384/1516232 * 2.500 = 0.475
50	503569/405879 * 1.000 = 1.241	690013/1595244 * 1.000 = 0.433
100	1041498/398319 * 0.500 = 1.307	1432034/151384 * 0.500 = 0.473
200	1965599/399995 * 0.250 = 1.229	2595093/1532740 * 0.250 = 0.423

AV. RRF = 1.275

%RSD = 4.3%

AV. RRF = 0.454

%RSD = 5.5%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9	Level: Low	
Tune File ID: K4054	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: k4055	Date: 08/21/98	Page: 110
Initial Calibration File ID: K4038	Date: 08/20/98	Page: 89
Associated Samples: VBLKKV233, DWA-7 40-44, 101SS-2, 101SS-1, 101SS-IMS, 101SS-1MSD		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

1,1,1-Trichloroethane

Chlorobenzene

PPB

50

931580/1700358 * 1.000 = 0.548

1303004/1289216 * 1.000 = 1.011

%D: (0.563 - 0.548) / 0.563 * 100 = 2.664298

%D: (1.039 - 1.011) / 1.039 * 100 = 2.694899

METHOD BLANK: VBLKKV233 (Page 126)

Compound

Methylene Chloride

ppb

2J

<CRDL

10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2 Level: low - water
Tune File ID: B7224 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: B7225 Date: 08/03/98 Page: 72
Associated Samples: VBLKBV237A, S,S,E,B-I, Trip Blank

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Toluene	Chloroform
PPB		
10	985128/3152857 * 5.000 = 1.562	669087/1096437 * 5.000 = 3.051
20	1924398/2861934 * 2.500 = 1.681	1276188/1006326 * 2.500 = 3.170
50	4651480/3063673 * 1.000 = 1.518	3132645/1137576 * 1.000 = 2.754
100	9491213/3445103 * 0.500 = 1.377	6600809/1282634 * 0.500 = 2.573
200	20746361/3402080 * 0.250 = 1.524	14459832/1279735 * 0.250 = 2.825
AV. RRF = 1.532	%RSD = 7.1%	AV. RRF = 2.875 %RSD = 8.3%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS **CONTINUING CALIBRATION SUMMARY**

Instrument ID: XVOAMS2

Level: low - water

Tune File ID: B7224

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: B7638

Date: 08/25/98

Page: 105

Initial Calibration File ID: B7225

Date: 08/03/98

Page: 72

Associated Samples: VBLKBV237A, S,S,E,B-I, Trip Blank

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Bromomethane

Toluene

PPB

50

746675/1106145 * 1.000 = 0.675

4564378/3043281 * 1.000 = 1.500

%D: (0.792 - 0.675) / 0.792 * 100 = 14.772727

%D: (1.532 - 1.500) / 1.532 * 100 = 2.088773

METHOD BLANK: VBLKBV237A (Page 132)

Compound

Methylene Chloride

ppb

11

<CRDL

10

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample S.S.E.B.-1 (Lab. #: 78545) Received 8/20					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	1 JB	1 JB	negate	1
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil and Water Volatile Organic Analyses - Method 95-1

Samples Received: August 12th through 20th, 1998

Sample Delivery Group: G2812

Laboratory Reference Numbers:

Received 8/12

Soil Sample DWA-7 40-44 76699

Received 8/19

Soil Sample 101SS-2 78277

Soil Sample 101SS-1 78279

Soil Sample 101SS-1MS 78279MS

Soil Sample 101SS-1MSD 78279MSD

Received 8/20

Trip Blank 78546

Water Sample S.S.E.B.-1 78545

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Soil Sample 101SS-1 (Lab. #: 78279) Received 8/19					
		% Moisture = 7			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	10 U	14	14		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Trip Blank (Lab. #: 78546) Received 8/20					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	1 JB	1 JB	negate	1
Acetone	10 U	7 J	7 J		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil and Water Volatile Organic Analyses - Method 95-1
Samples Received: August 12th through 20th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Soil Sample DWA-7 40-44 (Lab. #: 76699) Received 8/12					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	10 U	20	20		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: September 4th through 11th, 1998
Sample Delivery Group: G2812

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Soil Sample 101SS-2 (Lab. #: 78277) Received 8/19					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	10 U	14	13		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.9 J	0.9 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Holding Times

All samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Soil sample 101SS-1 (Lab. #: 78279) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

A water matrix spike was not analyzed with the sample delivery group.

Blank Spike

No problems were found with the recoveries of the soil blank spike.

A water blank spike was not analyzed with the sample delivery group.

Method Blanks

Methylene chloride was detected in both the soil (2J ug/l) and water (1J ug/l) method blanks. Methylene chloride was negated according to standard EPA data validation procedures whenever it was detected in a sample.

Trip Blanks

A trip blank was included with the water sample which contained low concentrations of methylene chloride (1JB ug/l) and acetone (7J ug/l). The methylene chloride was negated from both the trip blank and the water sample due to its presence in the method blank. Acetone was not detected in the one water samples.

It should be noted that trip blanks were not associated with the soil samples.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil and Water Volatile Organic Analyses - Method 95-1

Samples Received: August 12th through 20th, 1998

Sample Delivery Group: G2812

Laboratory Reference Numbers:

Received 8/12

Soil Sample DWA-7 40-44	76699

Received 8/19

Soil Sample 101SS-2	78277

Soil Sample 101SS-1	78279

Soil Sample 101SS-1MS	78279MS

Soil Sample 101SS-1MSD	78279MSD

Received 8/20

Trip Blank	78546

Water Sample S.S.E.B.-1	78545

Soil and water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- * - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
 - Matrix Spike / Matrix Spike Duplicate
 - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

NOV 12 1998

For Hazardous Waste Section

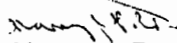
DATA VALIDATION SUMMARY

It should be noted that a water blank spike, matrix spike or matrix spike duplicate were not analyzed with this sample delivery group.

There were several discrepancies as to whether the samples were analyzed by a heated purge in the various forms of this sample delivery group (heated purge on method blanks and calibration forms, but not on tune forms). The laboratory revised these forms in their 11/5 resubmission.

It should be noted that trip blanks were not associated with the soil samples.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
November 9, 1998

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2 Level: low - water
 Tune File ID: B7615 Acceptable: yes Time Requirements Met: yes
 Calibration File ID: B7616 Date: 08/24/98 Page: 77
 Initial Calibration File ID: B7225 Date: 08/03/98 Page: 57
 Associated Samples: VBLKBV236A, 101DW-9-SWMS, 101DW-9-SWMSD, Trip Blank, 8061BS

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Trichloroethene	1,1,2,2-Tetrachloroethane
PPB		
50	1795776/3945632 * 1.000 = 0.455	2550489/3085316 * 1.000 = 0.827
%D:	(0.479 - 0.455) / 0.479 * 100 = 5.010438	%D: (0.799 - 0.827) / 0.799 * 100 = -3.50438

METHOD BLANK: VBLKBV236A

(Page 104)

Compound

Methylene Chloride

ppb

0.8J

<CRDL

10

OVERALL ASSESSMENT AND COMMENTS: ok

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Pesticide and PCB Compliance	Page in CLP	Non-Compliance
G2812	8/12/98	95	DWA-7 40-44	76699	Soil	Yes	NA	NA	NA	NA		
G2812	8/19/98	95	101SS-2	78277	Soil	Yes	See Text	NA	NA	See Text		
G2812	8/19/98	95	101SS-1	78279	Soil	Yes	See Text	NA	NA	See Text		
G2812	8/19/98	95	101SS-1MS	78279MS	Soil	Yes	See Text	NA	NA	See Text		
G2812	8/19/98	95	101SS-1MSD	78279MSD	Soil	Yes	See Text	NA	NA	See Text		
G2812	8/20/98	95	Trip Blank	78546	Water	Yes	NA	NA	NA	NA		
G2812	8/20/98	95	Water Sample S.S.E.B.-1	78545	Water	Yes	See Text	NA	NA	See Text		

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 27 1999

For Hazardous Waste Section

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS2 Level: low - water
Tune File ID: B7224 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: B7225 Date: 08/03/98 Page: 57
Associated Samples: VBLKBV227, Trip Blank, DWA-7a 79-80, VBLKBV236A, 101DW-9-SWMS, 101DW-9-SWMSD, Trip Blank, 8061BS, VBLKBV237A, 101DW-9-SW

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Toluene	Chloroform
PPB		
10	985128/3152857 * 5.000 = 1.562	669087/1096437 * 5.000 = 3.051
20	1924398/2861934 * 2.500 = 1.681	1276188/1006326 * 2.500 = 3.170
50	4651480/3063673 * 1.000 = 1.518	3132645/1137576 * 1.000 = 2.754
100	9491213/3445103 * 0.500 = 1.377	6600809/1282634 * 0.500 = 2.573
200	20746361/3402080 * 0.250 = 1.524	14459832/1279735 * 0.250 = 2.825
AV. RRF = 1.532	%RSD = 7.1%	AV. RRF = 2.875 %RSD = 8.3%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2	Level: low - water	
Tune File ID: B7462	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B7463	Date: 08/15/98	Page: 73
Initial Calibration File ID: B7225	Date: 08/03/98	Page: 57
Associated Samples: VBLKBV227, Trip Blank, DWA-7a 79-80		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Benzene
PPB		
50	1695631/1331967 * 1.000 = 1.273	5063936/4418028 * 1.000 = 1.146fs
%D: (1.359 - 1.273) / 1.359 * 100 = 6.328182	%D: (1.151 - 1.146) / 1.151 * 100 = 0.434405	

METHOD BLANK: VBLKBV227 (Page 97)

Compound	ppb	<CRDL
Methylene Chloride	0.6J	10
Acetone	7J	10

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 12th and 19th, 1998
Sample Delivery Group: G2811

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample 101DW-9-SW (Lab. #: 78276) Received 8/19					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	1 J	0.9 JB	0.9 JB	negate	1
Acetone	10 U	13	13	negate	5
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	2 J	2 J		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	4 J	4 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Water Volatile Organic Analyses - Method 95-1

Samples Received: August 12th and 19th, 1998

Sample Delivery Group: G2811

Laboratory Reference Numbers:

Received 8/12

Trip Blank	76700
DWA-7a-79-80	76698

Received 8/19

Trip Blank	78278
101DW-9-SW	78276
101DW-9-SWMS	78276MS
101DW-9-SWMSD	78276MSD

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 12th and 19th, 1998
Sample Delivery Group: G2811

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DWA-7a 79-80 (Lab. #: 76698)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.6 J	10 U	10 U		
Acetone	7 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	2 J	2 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 12th and 19th, 1998
Sample Delivery Group: G2811

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Trip Blank (Lab. #: 78278) Received 8/19					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.8 J	2 JB	2 JB	negate	1
Acetone	10 U	8 J	8 J		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.83)	ND	5 J	5 J	qualify	79

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: August 12th and 19th, 1998
Sample Delivery Group: G2811

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Trip Blank (Lab. #: 76700) Received 8/12					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	0.6 J	1 JB	1 JB	negate	1
Acetone	7 J	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	2 J	2 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

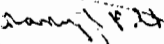
DATA VALIDATION SUMMARY

The samples noted in the NYS DEC ASP summary forms (pages 4 & 5) of the analytical report are not those which were analyzed in this sample delivery group. The laboratory submitted the revised forms on 11/5. The correct forms were included in the Sample Data Summary Package.

Soil samples DWA-7 (40-44) and 101 SS-2 were also noted on the chain of custody form, but were not analyzed. The reason for this discrepancy was be noted a revised case narrative submitted on 11/5.

The chain of custody notes that sample 101DW-9-SW was received on 8/19, but the cover page states that all samples were received on 8/12. A new cover letter was received on 11/5.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
November 5, 1998

Holding Times

All samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were found with any of the calibrations associated with the analyses of the samples of this delivery group.

Matrix Spike / Matrix Spike Duplicate

Sample 101DW-9-SW (Lab. #: 78276) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Methylene chloride and/or acetone were detected in each of the three method blanks. These were negated according to EPA guidelines whenever they were detected in an associated sample.

Trip Blanks

Both methylene chloride (0.6JB ug/l) and acetone (7JB ug/l) were detected in the trip blank associated with the analysis of sample DWA-7a 79-80 (Lab. #: 76698). Both of these compounds were negated from the trip blank due to their presence in the method blank. Neither of these compounds were detected in sample DWA-7a 79-80.

Both methylene chloride (2JB ug/l) and acetone (8J ug/l) were detected in the trip blank associated with the analysis of sample 101DW-9-SW. The methylene chloride in the trip blank was negated due to its presence in the associated method blank.

Sample 101DW-9-SW contained both methylene chloride (0.9JB ug/l) and acetone (13 ug/l). The methylene chloride in the sample was negated due to its presence in the method blank. The acetone in this sample was negated due to the presence of acetone in the trip blank.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
G2811	8/12/98	95	Trip Blank	76700	Water	Yes	NA	NA	NA		
G2811	8/12/98	95	DWA-7a-79-80	76698	Water	Yes	NA	NA	NA		
G2811	8/19/98	95	Trip Blank	78278	Water	Yes	NA	NA	NA		
G2811	8/19/98	95	101DW-9-SW	78276	Water	Yes	NA	NA	NA		
G2811	8/19/98	95	101DW-9-SWMS	78276MS	Water	Yes	NA	NA	NA		
G2811	8/19/98	95	101DW-9-SWMSD	78276MSD	Water	Yes	NA	NA	NA		

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

NOV 12 1998

For Hazardous Waste Section

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Water Volatile Organic Analyses - Method 95-1

Samples Received: August 12th and 19th, 1998

Sample Delivery Group: G2811

Laboratory Reference Numbers:

Received 8/12

Trip Blank	76700
DWA-7a-79-80	76698

Received 8/19

Trip Blank	78278
101DW-9-SW	78276
101DW-9-SWMS	78276MS
101DW-9-SWMSD	78276MSD

Water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- * - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

LAWLER, MATUSKY &
SKELLY ENGINEERS LLP

NOV 12 1998

For Hazardous Waste Section

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	Nitrobenzene	Chrysene
PPB		
20	$321646/820679 * 2.000 = 0.784$	$557561/923940 * 2.000 = 1.207$
50	$760471/814036 * 0.800 = 0.747$	$1352196/869712 * 0.800 = 1.244$
80	$1270178/881182 * 0.500 = 0.721$	$2444373/965532 * 0.500 = 1.266$
120	$1775756/860946 * 0.333 = 0.687$	$3856787/998884 * 0.333 = 1.287$
160	$1923817/712430 * 0.250 = 0.675$	$4824382/942413 * 0.250 = 1.280$
AV. RRF = 0.723	%RSD = 6.1 %	AV. RRF = 1.257 %RSD = 2.6%

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 1 of 2)**

Instrument ID: XBNAMS6

Tune File ID: M1664

Calibration File ID: M1665

Initial Calibration File ID: M1641

Associated Samples: 4460BS, DW-11 S-2, DW-11 S-2MS, DW-11 S-2MSD

Acceptable: yes

Date: 08/10/98

Date: 08/09/98

Time Requirements Met:

Page: 537

Page: 457

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: Acenaphthene
PPB

Pentachlorophenol

50 1116827/719982 * 0.800 = 1.241

277949/1320735 * 0.800 = 0.168

PERCENT DIFFERENCE:

$$(1.250 - 1.241) / 1.250 * 100 = 0.72$$

$$(0.172 - 0.168) / 0.172 * 100 = 2.325581$$

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 1 of 2)**

Instrument ID: XBNAMS6

Tune File ID: M1640

Acceptable: yes

Time Requirements Met:

Initial Calibration File ID: M1641

Date: 08/09/98

Page: 457

Associated Samples: 4460BS, DW-11 S-2, DW-11 S-2MS, DW-11 S-2MSD

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether*	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: Naphthalene
PPB

Indeno(1,2,3-cd)pyrene

50 1537041/1095023 * 0.800 = 1.123

1494706/944942 * 0.800 = 1.265

PERCENT DIFFERENCE:

$$(1.148 - 1.123) / 1.148 * 100 = 2.1777$$

$$(1.301 - 1.265) / 1.301 * 100 = 2.767102$$

WATER METHOD BLANK: SBLKWB195A (Page 572)

Compound ppb

No compounds were detected in this method blank.

<CRDL

SOIL METHOD BLANK: SBLKMB203 (Page 572)

Compound ppb
Unknown Organic Acid (13.98) 2,000J

<CRDL
NA

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1631

Calibration File ID: M1632

Initial Calibration File ID: M1464

Associated Samples: Field Blank

Acceptable: yes

Date: 08/03/98

Date: 07/21/98

Time Requirements Met: yes

Page: 516

Page: 409

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	Phenol	Fluoranthene
PPB		
20	$286111/246914 * 2.000 = 2.317$	$748837/1258044 * 2.000 = 1.190$
50	$691776/250623 * 0.800 = 2.208$	$1757847/1220492 * 0.800 = 1.152$
80	$1088047/262763 * 0.500 = 2.070$	$3286855/1354990 * 0.500 = 1.213$
120	$1805988/280605 * 0.333 = 2.143$	$5060794/1398947 * 0.333 = 1.205$
160	$2363164/273600 * 0.250 = 2.159$	$6428630/1306664 * 0.250 = 1.230$
AV. RRF = 2.180	%RSD = 4.2%	AV. RRF = 1.198 %RSD = 2.5%

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY**
(page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1537

Calibration File ID: M1539

Initial Calibration File ID: M1464

Associated Samples: SBLKWB195A

Acceptable: yes

Date: 08/03/98

Date: 07/21/98

Time Requirements Met: yes

Page: 507

Page: 409

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Semivolatile Organic Analyses - Method 95-~~A~~2, all pages, Mutt
Samples Received: July 13, 1998
Sample Delivery Group: F4641
Laboratory Reference Numbers:

Field Blank	71010
DW-11 S-2	71040
DW-11 S-2MS	71040MS
DW-11 S-2MSD	71040MSD

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 1 of 2)**

Instrument ID: XBNAMS6

Tune File ID: M1463

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: M1464

Date: 07/21/98

Page: 409

Associated Samples: SBLKWB195A, Field Blank, SBLKMB203

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether*	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

Footnote:

Soil TCL Semivolatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4641

Sample Delivery Group: F4641		QA			
Sample / Analyte	Method	Lab.	Validation	Qualifiers	Footnotes
	Blank	Reported	Reported		
	Conc.	Conc.	Conc.		
	(PPB)	(PPB)	Decision		
Sample DW-11 S-2 (Lab. #: 71040)					
TCL Semivolatile Organics		(Diluted 5X)			
		% Moisture = 32			
Phenol	9,900 U	1,000 J	1,003 J	qualify	81
bis(2-Chloroethyl)Ether	9,900 U	72,000 U	72,993 U	J	qualify
2-Chlorophenol	9,900 U	72,000 U	72,993 U	J	qualify
1,3-Dichlorobenzene	9,900 U	72,000 U	72,993 U	J	qualify
1,4-Dichlorobenzene	9,900 U	2,600 J	2,554 J		qualify
1,2-Dichlorobenzene	9,900 U	72,000 U	72,993 U	J	qualify
2-Methylphenol	9,900 U	72,000 U	72,993 U	J	qualify
bis(2-Chloroisopropyl)ether	9,900 U	72,000 U	72,993 U	J	qualify
4-Methylphenol	9,900 U	72,000 U	72,993 U	J	qualify
N-Nitroso-di-n-propylamine	9,900 U	72,000 U	72,993 U	J	qualify
Hexachloroethane	9,900 U	72,000 U	72,993 U	J	qualify
Nitrobenzene	9,900 U	72,000 U	72,993 U	J	qualify
Isophorone	9,900 U	72,000 U	72,993 U	J	qualify
2-Nitrophenol	9,900 U	72,000 U	72,993 U	J	qualify
2,4-Dimethylphenol	9,900 U	72,000 U	72,993 U	J	qualify
bis(2-Chloroethoxy)methane	9,900 U	72,000 U	72,993 U	J	qualify
2,4-Dichlorophenol	9,900 U	72,000 U	72,993 U	J	qualify
1,2,4-Trichlorobenzene	9,900 U	72,000 U	72,993 U	J	qualify
Naphthalene	9,900 U	72,000 U	72,993 U	J	qualify
4-Chloroaniline	9,900 U	72,000 U	72,993 U	J	qualify
Hexachlorobutadiene	9,900 U	72,000 U	72,993 U	J	qualify
4-Chloro-3-methylphenol	9,900 U	72,000 U	72,993 U	J	qualify
2-Methylnaphthalene	9,900 U	72,000 U	72,993 U	J	qualify
Hexachlorocyclopentadiene	9,900 U	72,000 U	72,993 U	J	qualify
2,4,6-Trichlorophenol	9,900 U	72,000 U	72,993 U	J	qualify
2,4,5-Trichlorophenol	24,000 U	180,000 U	182,482 U	J	qualify
2-Chloronaphthalene	9,900 U	72,000 U	72,993 U	J	qualify
2-Nitroaniline	24,000 U	180,000 U	182,482 U	J	qualify
Dimethylphthalate	9,900 U	72,000 U	72,993 U	J	qualify
Acenaphthylene	9,900 U	72,000 U	72,993 U	J	qualify
2,6-Dinitrotoluene	9,900 U	72,000 U	72,993 U	J	qualify
3-Nitroaniline	24,000 U	180,000 U	182,482 U	J	qualify
Acenaphthene	9,900 U	72,000 U	72,993 U	J	qualify
2,4-Dinitrophenol	24,000 U	180,000 U	182,482 U	J	qualify
4-Nitrophenol	9,900 U	72,000 U	72,993 U	J	qualify
Dibenzofuran	9,900 U	72,000 U	72,993 U	J	qualify
2,4-Dinitrotoluene	9,900 U	72,000 U	72,993 U	J	qualify
Diethylphthalate	9,900 U	72,000 U	72,993 U	J	qualify
4-Chlorophenyl-phenylether	9,900 U	72,000 U	72,993 U	J	qualify
Fluorene	9,900 U	72,000 U	72,993 U	J	qualify
4-Nitroaniline	24,000 U	180,000 U	182,482 U	J	qualify
4,6-Dinitro-2-methylphenol	24,000 U	180,000 U	182,482 U	J	qualify
N-Nitrosodiphenylamine (1)	9,900 U	72,000 U	72,993 U	J	qualify
4-Bromophenyl-phenylether	9,900 U	72,000 U	72,993 U	J	qualify
Hexachlorobenzene	9,900 U	72,000 U	72,993 U	J	qualify
Pentachlorophenol	24,000 U	180,000 U	182,482 U	J	qualify
Phenanthrene	9,900 U	1,300 J	1,294 J		qualify
Anthracene	9,900 U	72,000 U	72,993 U	J	qualify
Carbazole	9,900 U	72,000 U	72,993 U	J	qualify
Di-n-Butylphthalate	9,900 U	72,000 U	72,993 U	J	qualify
Fluoranthene	9,900 U	2,400 J	2,437 J		qualify
Pyrene	9,900 U	2,100 J	2,131 J		qualify
Butylbenzylphthalate	9,900 U	72,000 U	72,993 U	J	qualify
3,3'-Dichlorobenzidine	9,900 U	72,000 U	72,993 U	J	qualify
Benzo(a)anthracene	9,900 U	1,100 J	1,126 J		qualify
Chrysene	9,900 U	1,200 J	1,231 J		qualify
Bis(2-Ethylhexyl)phthalate	9,900 U	9,800 J	9,813 J		qualify
Di-n-octylphthalate	9,900 U	72,000 U	72,993 U	J	qualify
Benzo(b)fluoranthene	9,900 U	1,900 J	1,869 J	J	qualify
Benzo(k)fluoranthene	9,900 U	72,000 U	72,993 U	J	qualify
Benzo(a)pyrene	9,900 U	770 J	773 J		qualify
Indeno(1,2,3-cd)pyrene	9,900 U	72,000 U	72,993 U	J	qualify
Dibenz(a,h)anthracene	9,900 U	72,000 U	72,993 U	J	qualify
Benzo(g,h,i)perylene	9,900 U	72,000 U	72,993 U	J	qualify

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Page 3

Soil TCL Semivolatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4641

Sample Delivery Group: F4641			QA			
Sample / Analyte	Method	Lab.	Validation			
	Blank	Reported	Reported			
	Conc.	Conc.	Conc.		Qualifiers	Footnotes
	(PPB)	(PPB)	Decision			
Sample DW-11 S-2 (Lab. #: 71040)						
Non-Target Semivolatile Organics						
Hexanoic Acid, 2-Ethyl- (14.13)	ND	66,000 NJ	66,000 NJ		qualify	81
Nonylphenol Isomer (18.93)	ND	11,000 J	11,000 J		qualify	81
Unknown Alkane (19.60)	ND	13,000 J	13,000 J		qualify	81
Unknown Alkane (20.37)	ND	17,000 J	17,000 J		qualify	81
Unknown (32.02)	ND	17,000 J	17,000 J		qualify	81

It was requested that the laboratory's case narrative for be expanded to note why the soil sample was analyzed at a medium level when only relatively low concentrations of semivolatiles were detected in the sample. The laboratory noted in their 9/24 revision to the case narrative that the viscous nature of the sample prevented it from being run at a lower dilution.

No other problems were found with the reported results of any of the samples of this delivery group.

Soll TCL Semivolatile Organic Analyses - Method 95-r 2, all pages, Mett
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample Delivery Group: F4641	Method	Lab.	QA		
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
			Conc.		
Sample / Analyte	(PPB)	(PPB)	Decision	Qualifiers	Footnotes
Field Blank (Lab. #: 71010)					
TCL Semivolatile Organics					
	(Undiluted - 930 ml extracted)				
Phenol	10 U	11 U	11 U		
bis(2-Chloroethyl)Ether	10 U	11 U	11 U		
2-Chlorophenol	10 U	11 U	11 U		
1,3-Dichlorobenzene	10 U	11 U	11 U		
1,4-Dichlorobenzene	10 U	11 U	11 U		
1,2-Dichlorobenzene	10 U	11 U	11 U		
2-Methylphenol	10 U	11 U	11 U		
bis(2-Chloroisopropyl)ether	10 U	11 U	11 U		
4-Methylphenol	10 U	11 U	11 U		
N-Nitroso-di-n-propylamine	10 U	11 U	11 U		
Hexachloroethane	10 U	11 U	11 U		
Nitrobenzene	10 U	11 U	11 U		
Isophorone	10 U	11 U	11 U		
2-Nitrophenol	10 U	11 U	11 U		
2,4-Dimethylphenol	10 U	11 U	11 U		
bis(2-Chloroethoxy)methane	10 U	11 U	11 U		
2,4-Dichlorophenol	10 U	11 U	11 U		
1,2,4-Trichlorobenzene	10 U	11 U	11 U		
Naphthalene	10 U	11 U	11 U		
4-Chloroaniline	10 U	11 U	11 U		
Hexachlorobutadiene	10 U	11 U	11 U		
4-Chloro-3-methylphenol	10 U	11 U	11 U		
2-Methylnaphthalene	10 U	11 U	11 U		
Hexachlorocyclopentadiene	10 U	11 U	11 U		
2,4,6-Trichlorophenol	10 U	11 U	11 U		
2,4,5-Trichlorophenol	25 U	27 U	27 U		
2-Chloronaphthalene	10 U	11 U	11 U		
2-Nitroaniline	25 U	27 U	27 U		
Dimethylphthalate	10 U	11 U	11 U		
Acenaphthylene	10 U	11 U	11 U		
2,6-Dinitrotoluene	10 U	11 U	11 U		
3-Nitroaniline	25 U	27 U	27 U		
Acenaphthene	10 U	11 U	11 U		
2,4-Dinitrophenol	25 U	27 U	27 U		
4-Nitrophenol	25 U	27 U	27 U		
Dibenzofuran	10 U	11 U	11 U		
2,4-Dinitrotoluene	10 U	11 U	11 U		
Diethylphthalate	10 U	11 U	11 U		
4-Chlorophenyl-phenylether	10 U	11 U	11 U		
Fluorene	10 U	11 U	11 U		
4-Nitroaniline	10 U	11 U	11 U		
4,6-Dinitro-2-methylphenol	25 U	27 U	27 U		
N-Nitrosodiphenylamine (1)	10 U	11 U	11 U		
4-Bromophenyl-phenylether	10 U	11 U	11 U		
Hexachlorobenzene	10 U	11 U	11 U		
Pentachlorophenol	25 U	27 U	27 U		
Phenanthrene	10 U	11 U	11 U		
Anthracene	10 U	11 U	11 U		
Carbazole	10 U	11 U	11 U		
Di-n-Butylphthalate	10 U	11 U	11 U		
Fluoranthene	10 U	11 U	11 U		
Pyrene	10 U	11 U	11 U		
Butylbenzylphthalate	10 U	11 U	11 U		
3,3'-Dichlorobenzidine	10 U	11 U	11 U		
Benzo(a)anthracene	10 U	11 U	11 U		
Chrysene	10 U	11 U	11 U		
Bis(2-Ethylhexyl)phthalate	10 U	11 U	11 U		
Di-n-octylphthalate	10 U	11 U	11 U		
Benzo(b)fluoranthene	10 U	11 U	11 U		
Benzo(k)fluoranthene	10 U	11 U	11 U		
Benzo(a)pyrene	10 U	11 U	11 U		
Indeno(1,2,3-cd)pyrene	10 U	11 U	11 U		
Dibenz(a,h)anthracene	10 U	11 U	11 U		
Benzo(g,h,i)perylene	10 U	11 U	11 U		
Non-Target Semivolatile Organics					
None Detected					

Holding Times

The one soil sample was extracted 9 days after it was received by the laboratory. This significantly exceeded the 5 day holding time required by the NYS DEC ASP program (page I-32). Low concentrations of semivolatile compounds may have been overlooked and those reported may have been significantly underestimated. The data for the sample was flagged with the "J" qualifier and footnoted with #81 in the data validation summary table.

Tunes

No problems were detected with any of the tunes of this sample delivery group.

Surrogate Compound Recoveries

All surrogate compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

Method Blanks

No compounds were detected in the method blank associated with the extraction of the field blank.

One non-target compound was detected in the method blank associated with the extraction of the one soil sample. This compound was not detected in the sample itself.

Field Blank

No compounds were detected in the one field blank associated with this sample delivery group.

Matrix Spike / Matrix Spike Duplicate

Sample DW-11 S-2 (Lab. #: 71040) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits with the following exceptions:

Compound	MS %Rec	MSD %Rec	QC Limits	RPD	Limits
Phenol			26-90		35
2-Chlorophenol			25-102		50
1,4-Dichlorobenzene			28-104		27
N-Nitroso-di-n-prop.			41-126		38
1,2,4-Trichlorobenzene			38-107		23
4-Chloro-3-methylphenol			26-103		33
Acenaphthene			31-137		19
4-Nitrophenol	4%	4%	11-114		50
2,4-Dinitrotoluene			28-89		47
Pentachlorophenol			17-109		47
Pyrene			35-142		36

It is possible that low concentrations of some acid extractable compounds may have been overlooked in the sample of this delivery group.

Blank Spike

All blank spike recoveries were within the required quality assurance limits with the following exceptions:

Compound	MS %Rec	QC Limits
Phenol		12 - 110
2-Chlorophenol		27 - 123
1,4-Dichlorobenzene		36 - 97
N-Nitroso-di-n-prop.		41 - 116
1,2,4-Trichlorobenzene		39 - 98
4-Chloro-3-methylphenol		23 - 97
Acenaphthene		46 - 118
4-Nitrophenol	93%	10 - 80
2,4-Dinitrotoluene	100%	24 - 96
Pentachlorophenol		9 - 103
Pyrene		26 - 127

These slightly high recoveries do not affect the end use of the data.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Sample DW-11 S-2 (Lab. #: 71040)

The one soil sample was extracted 9 days after it was received by the laboratory. This significantly exceeded the 5 day holding time required by the NYS DEC ASP program (page I-32). Low concentrations of semivolatile compounds may have been overlooked and those reported may have been significantly underestimated.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: July 13, 1998

Sample Delivery Group: F4641

Laboratory Reference Numbers:

Field Blank	71010
DW-11 S-2	71040
DW-11 S-2MS	71040MS
DW-11 S-2MSD	71040MSD

One soil sample and a field blank were received for analyses of the semivolatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
 - Holding Times
- * - Calibrations
 - Laboratory Blanks
- * - Field Blank
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
 - Matrix Spike / Matrix Spike Duplicate
 - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

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JAN 27 1999

For Hazardous Waste Section

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

The one soil sample was extracted 9 days after it was received by the laboratory. This significantly exceeded the 5 day holding time required by the NYS DEC ASP program (page I-32). Low concentrations of semivolatile compounds may have been overlooked and those reported may have been significantly underestimated.

The low recoveries of 4-nitrophenol in both the matrix spike and matrix spike duplicate (4%) should be noted by all end users of the data. It is possible that low concentrations of some acid extractable compounds may have been overlooked in the sample of this delivery group.

It was requested that the laboratory's case narrative be expanded to note why the soil sample was analyzed at a medium level when only relatively low concentrations of semivolatiles were detected in the sample. The laboratory noted

in their 9/24 revision to the case narrative that the viscous nature of the sample prevented it from being run at a lower dilution.

Pages 527 through 531 were not found in the copy of the report originally submitted for validation. These were included in the laboratory's 9/24 resubmission.

No problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
October 10, 1998

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9	Level: Low - Soils	
Tune File ID: K3506	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: K3507	Date: 07/17/98	Page: 268A
Initial Calibration File ID: K3495	Date: 07/16/98	Page: 243
Associated Samples: VBLKKV198, DW-2 S-1, DW-2 28-30, DW-3 S-1, DW-3 28-30, DW-4 S-1		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Bromomethane	Trichloroethene
PPB		
50	301356/312642 * 1.000 = 0.964	542746/1323566 * 1.000 = 0.41
%D: (1.128 - 0.964) / 1.128 * 100 = 14.539007	%D: (0.459 - 0.410) / 0.459 * 100 = 10.6754	

METHOD BLANK: VBLKKV198 (Page 311)

Compound	ppb	<CRDL
Methylene Chloride	2J	10
Acetone	7J	10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low - Soils

Tune File ID: K3529

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: K3531

Date: 07/21/98

Page: 272

Initial Calibration File ID: K3495

Date: 07/16/98

Page: 243

Associated Samples: VBLKKV202, DW-6 S-1, DW-6 19-26, DW-8 S-1, DW-9 S-1, 5280BS, DW-11 S-2MS, DW-11 S-2MSD, DW-11 S-2

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Chloroform

Toluene

PPB

50

967127/342638 * 1.000 = 2.823

1411623/1073178 * 1.000 = 1.315

%D: (3.246 - 2.822) / 3.246 * 100 = 13.06223

%D: (1.370 - 1.315) / 1.370 * 100 = 4.014599

METHOD BLANK: VBLKKV202 (Page 317)

Compound

ppb

<CRDL

Methylene Chloride

3J

10

Acetone

9J

10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS3	Level: Low	
Tune File ID: C0523	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: C0524	Date: 07/18/98	Page: 262
Initial Calibration File ID: C0435	Date: 07/11/98	Page: 226
Associated Samples: - VBLKCV199A, Field Blank		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	33%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: no

Footnote:
 Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Carbon Tetrachloride	Tetrachloroethane
PPB		
50	2937607/4015020 * 1.000 = 0.732	1747224/3030486 * 1.000 = 0.577
%D:	(0.663 - 0.732) / 0.663 * 100 = -10.40724	%D: (0.549 - 0.577) / 0.549 * 100 = 5.100182

METHOD BLANK: VBLKCV199A (Page 306)

Compound	ppb	<CRDL
No compounds were detected in this method blank		

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low - Soils

Tune File ID: K3494

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: K3495

Date: 07/16/98

Page: 243

Associated Samples: VBLKKV198, DW-2 S-1, DW-2 28-30, DW-3 S-1, DW-3 28-30, DW-4 S-1, VBLKKV202, DW-6 S-1, DW-6 19-26, DW-8 S-1, DW-9 S-1, 5280BS, DW-11 S-2MS, DW-11 S-2MSD, DW-11 S-2, VBLKKV203, DW-9 27-29

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Trichloroethene	Toluene
PPB		
10	107552/1127426 * 5.000 = 0.477	253091/877581 * 5.000 = 1.442
20	216902/1122349 * 2.500 = 0.483	503698/872018 * 2.500 = 1.444
50	541045/1201130 * 1.000 = 0.450	1212433/906915 * 1.000 = 1.337
100	946449/1165800 * 0.500 = 0.406	2104608/868101 * 0.500 = 1.212
200	2138268/1117421 * 0.250 = 0.478	4665167/823410 * 0.250 = 1.416

AV. RRF = 0.459

%RSD = 7.0%

AV. RRF = 1.370

%RSD = 7.2%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS1	Level: Low - Soil	
Tune File ID: A4635	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: A4639	Date: 07/17/98	Page: 259
Initial Calibration File ID: A4638	Date: 07/17/98	Page: 210
Associated Samples: VBLKAV198, DW-4 30-32, DW-5 25-27, DW-7 S-1, DW-7 25-27, DW-8 22-24,		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	26%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: no

Footnote:

Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1,1-Trichloroethane	Benzene
PPB		
50	4993276/9116789 * 1.000 = 0.548	6768400/9116789 * 1.000 = 0.742

%D: (0.617 - 0.548) / 0.617 * 100 = 11.183144

%D: (0.811 - 0.742) / 0.811 * 100 = 8.508015

METHOD BLANK: VBLKAV198 (Page 301)

Compound	ppb	<CRDL
Methylene Chloride	3J	10

OVERALL ASSESSMENT AND COMMENTS: ok

**VOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY**

Instrument ID: XVOAMS3

Level: Low

Tune File ID: C0434

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: C0435

Date: 07/11/98

Page: 226

Associated Samples: - VBLKCV199A, Field Blank

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Toluene
PPB		
10	271641/1114687 * 5.000 = 1.218	1078072/3751235 * 5.000 = 1.437
20	572336/1217313 * 2.500 = 1.175	2133632/3958733 * 2.500 = 1.347
50	1599565/1326870 * 1.000 = 1.206	6018375/4437502 * 1.000 = 1.356
100	3391441/1325935 * 0.500 = 1.279	12278427/4235083 * 0.500 = 1.450
200	6190276/1203007 * 0.250 = 1.286	22409953/3905760 * 0.250 = 1.434
AV. RRF = 1.233	%RSD = 3.9%	AV. RRF = 1.405 %RSD = 3.5%

OVERALL ASSESSMENT AND COMMENTS: ok

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Volatile Organic Analyses - Method 95-1

Samples Received: July 13, 1998

Sample Delivery Group: F4641

Laboratory Reference Numbers:

Field Blank	71010
DW-2 S-1	71021
DW-2 28-30	71022
DW-3 S-1	71023
DW-3 28-30	71024
DW-4 S-1	71025
DW-4 30-32	71026
DW-5 25-27	71027
DW-6 S-1	71029
DW-6 19-26	710330
DW-7 S-1	71031
DW-7 25-27	71032
DW-8 S-1	71034
DW-8 22-24	71035
DW-9 S-1	71038
DW-9 27-29	71039
DW-11 S-2	71040
DW-11 S-2MS	71040MS
DW-11 S-2MSD	71040MSD

**VOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY**

Instrument ID: XVOAMS1 Level: Low - Soil
Tune File ID: A4635 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: A4638 Date: 07/17/98 Page: 210
Associated Samples: VBLKAV198, DW-4 30-32, DW-5 25-27, DW-7 S-1, DW-7 25-27, DW-8 22-24

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	29%	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes
All Compounds Average RRF > 0.05: yes
All Compounds %RSD < QC Limit: no
All Compounds %RSD < 100%: yes

Footnote:

Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Tetrachloroethene
PPB		
10	584256/1878015 * 5.000 = 1.556	669373/5328752 * 5.000 = 0.628
20	1094477/2233925 * 2.500 = 1.225	1552031/6432318 * 2.500 = 0.603
50	2702777/2572993 * 1.000 = 1.050	3395528/6544202 * 1.000 = 0.519
100	5389358/2231726 * 0.500 = 1.207	6838501/6402317 * 0.500 = 0.534
200	9807826/2009802 * 0.250 = 1.220	12150860/5203819 * 0.250 = 0.584
AV. RRF = 1.252	%RSD = 14.8%	AV. RRF = 0.574 %RSD = 8.0%

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-9 27-29 (Lab. #: 71039)					
	% Moisture = 7				
TCL Volatile Organics	(1 Gram Extracted)				
Chloromethane	10 U	54 U	54 U		
Bromomethane	10 U	54 U	54 U		
Vinyl Chloride	10 U	54 U	54 U		
Chloroethane	10 U	54 U	54 U		
Methylene Chloride	4 J	20 JB	20 JB	negate	1
Acetone	9 J	53 JB	53 JB	negate	1
Carbon Disulfide	10 U	54 U	54 U		
1,1-Dichloroethene	10 U	54 U	54 U		
1,1-Dichloroethane	10 U	54 U	54 U		
1,2-Dichloroethene (total)	10 U	54 U	54 U		
Chloroform	10 U	54 U	54 U		
1,2-Dichloroethane	10 U	54 U	54 U		
2-Butanone	10 U	54 U	54 U		
1,1,1-Trichloroethane	10 U	54 U	54 U		
Carbon Tetrachloride	10 U	54 U	54 U		
Bromodichloromethane	10 U	54 U	54 U		
1,2-Dichloropropane	10 U	54 U	54 U		
cis-1,3-Dichloropropene	10 U	54 U	54 U		
Trichloroethene	10 U	54 U	54 U		
Dibromochloromethane	10 U	54 U	54 U		
1,1,2-Trichloroethane	10 U	54 U	54 U		
Benzene	10 U	54 U	54 U		
trans-1,3-Dichloropropene	10 U	54 U	54 U		
Bromoform	10 U	54 U	54 U		
4-Methyl-2-Pentanone	10 U	54 U	54 U		
2-Hexanone	10 U	54 U	54 U		
Tetrachloroethene	10 U	560	562		
1,1,2,2-Tetrachloroethane	10 U	54 U	54 U		
Toluene	10 U	3 J	3 J		
Chlorobenzene	10 U	54 U	54 U		
Ethylbenzene	10 U	54 U	54 U		
Styrene	10 U	54 U	54 U		
Xylene (total)	10 U	54 U	54 U		
Non-Target Volatile Organics					
Trichlorobenzene Isomer (16.85)	ND	89 J	89 J		
Trichlorobenzene Isomer (17.33)	ND	94 J	94 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-11 S-2 (Lab. #: 71040)					
		% Moisture = 32			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	14 U	15 U		
Bromomethane	10 U	14 U	15 U		
Vinyl Chloride	10 U	14 U	15 U		
Chloroethane	10 U	14 U	15 U		
Methylene Chloride	3 J	7 JB	7 JB	negate	1
Acetone	9 J	54 B	55 B	J negate	1
Carbon Disulfide	10 U	14 U	15 U		
1,1-Dichloroethene	10 U	14 U	15 U		
1,1-Dichloroethane	10 U	14 U	15 U		
1,2-Dichloroethene (total)	10 U	2 J	2 J		
Chloroform	10 U	14 U	15 U		
1,2-Dichloroethane	10 U	14 U	15 U		
2-Butanone	10 U	21	21		
1,1,1-Trichloroethane	10 U	14 U	15 U		
Carbon Tetrachloride	10 U	14 U	15 U		
Bromodichloromethane	10 U	14 U	15 U		
1,2-Dichloropropane	10 U	14 U	15 U		
cis-1,3-Dichloropropene	10 U	14 U	15 U		
Trichloroethene	10 U	2 J	2 J		
Dibromochloromethane	10 U	14 U	15 U		
1,1,2-Trichloroethane	10 U	14 U	15 U		
Benzene	10 U	14 U	15 U		
trans-1,3-Dichloropropene	10 U	14 U	15 U		
Bromoform	10 U	14 U	15 U		
4-Methyl-2-Pentanone	10 U	14 U	15 U		
2-Hexanone	10 U	14 U	15 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	14 U	15 U		
Toluene	10 U	8 J	8 J		
Chlorobenzene	10 U	14 U	15 U		
Ethylbenzene	10 U	14 U	15 U		
Styrene	10 U	14 U	15 U		
Xylene (total)	10 U	14 U	15 U		
Non-Target Volatile Organics					
Unknown Alkane (14.14)	ND	10 J	10 J		
C17H36 Alkane (14.37)	ND	13 J	13		
Unknown Alkane (14.61)	ND	20 J	20		
Unknown Alkane (14.85)	ND	33 J	33		
Unknown Alkane (15.06)	ND	47 J	47 J		
Unknown Alkane (15.23)	ND	13 J	13		
Unknown (15.38)	ND	25 J	25		
Unknown Siloxane (15.55)	ND	17 J	17		
Unknown Hydrocarbon (15.98)	ND	10 J	10 J		
Unknown Hydrocarbon (17.60)	ND	9 J	9		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
	(PPB)	(PPB)	Conc.		
			Decision		
Sample DW-8 22-24 (Lab. #: 71035)					
	% Moisture = 5				
TCL Volatile Organics	(Undiluted - 5.1 grams extracted)				
Chloromethane	10 U	10 U	11 U	J	15
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	3 J	4 JB	4 JB	negate	1
Acetone	10 U	10 U	11 U		
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	10 U	11 U		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	10 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	10 U	11 U		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	10 U	11 U		
Non-Target Volatile Organics					
Unknown (16.87)	ND	5 J	5 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4641

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-9 S-1 (Lab. #: 71038)					
	% Moisture = 13				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	11 U		
Bromomethane	10 U	12 U	11 U		
Vinyl Chloride	10 U	12 U	11 U		
Chloroethane	10 U	12 U	11 U		
Methylene Chloride	3 J	6 JB	6 JB	negate	1
Acetone	9 J	13 B	13 B	J negate	1
Carbon Disulfide	10 U	12 U	11 U		
1,1-Dichloroethene	10 U	12 U	11 U		
1,1-Dichloroethane	10 U	12 U	11 U		
1,2-Dichloroethene (total)	10 U	12 U	11 U		
Chloroform	10 U	12 U	11 U		
1,2-Dichloroethane	10 U	12 U	11 U		
2-Butanone	10 U	12 U	11 U		
1,1,1-Trichloroethane	10 U	12 U	11 U		
Carbon Tetrachloride	10 U	12 U	11 U		
Bromodichloromethane	10 U	12 U	11 U		
1,2-Dichloropropane	10 U	12 U	11 U		
cis-1,3-Dichloropropene	10 U	12 U	11 U		
Trichloroethene	10 U	0.6 J	0.6 J		
Dibromochloromethane	10 U	12 U	11 U		
1,1,2-Trichloroethane	10 U	12 U	11 U		
Benzene	10 U	12 U	11 U		
trans-1,3-Dichloropropene	10 U	12 U	11 U		
Bromoform	10 U	12 U	11 U		
4-Methyl-2-Pentanone	10 U	12 U	11 U		
2-Hexanone	10 U	12 U	11 U		
Tetrachloroethene	10 U	0.5 J	0.5 J		
1,1,2,2-Tetrachloroethane	10 U	12 U	11 U		
Toluene	10 U	0.7 J	0.7 J		
Chlorobenzene	10 U	12 U	11 U		
Ethylbenzene	10 U	12 U	11 U		
Styrene	10 U	12 U	11 U		
Xylene (total)	10 U	12 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-7 25-27 (Lab. #: 71032)					
	% Moisture = 3				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	4 JB	4 JB	negate	1
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.4 J	0.4 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown (16.85)	ND	7 J	7 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-8 S-1 (Lab. #: 71034)					
	% Moisture = 14				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U		
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	3 J	6 JB	6 JB	negate	1
Acetone	9 J	38 B	38 B	J negate	1
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	14	14		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	0.5 J	0.5 J		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	0.6 J	0.6 J		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	12 U	12 U		
Non-Target Volatile Organics					
Unknown Siloxane (17.32)	ND	8 J	8 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-6 19-26 (Lab. #: 71030)					
	% Moisture = 7				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	3 J	5 JB	5 JB	J negate	1
Acetone	9 J	16 B	17 B	J negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	0.8 J	0.8 J		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
Unknown (15.12)	ND	7 J	7 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-7 S-1 (Lab. #: 71031)					
	% Moisture = 2				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	qualify 15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	4 JB	4 JB	negate	1
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-5 25-27 (Lab. #: 71027)					
	% Moisture = 4				
TCL Volatile Organics	(Undiluted - 5.1 grams extracted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J qualify	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	4 JB	4 JB	negate	1
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown (16.85)	ND	6 J	6 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-6 S-1 (Lab. #: 71029)					
	% Moisture = 21				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	13 U	13 U		
Bromomethane	10 U	13 U	13 U		
Vinyl Chloride	10 U	13 U	13 U		
Chloroethane	10 U	13 U	13 U		
Methylene Chloride	3 J	6 JB	6 JB	negate	1
Acetone	9 J	28 B	28 B	J negate	1
Carbon Disulfide	10 U	13 U	13 U		
1,1-Dichloroethene	10 U	13 U	13 U		
1,1-Dichloroethane	10 U	13 U	13 U		
1,2-Dichloroethene (total)	10 U	13 U	13 U		
Chloroform	10 U	13 U	13 U		
1,2-Dichloroethane	10 U	13 U	13 U		
2-Butanone	10 U	9 J	9 J		
1,1,1-Trichloroethane	10 U	13 U	13 U		
Carbon Tetrachloride	10 U	13 U	13 U		
Bromodichloromethane	10 U	13 U	13 U		
1,2-Dichloropropane	10 U	13 U	13 U		
cis-1,3-Dichloropropene	10 U	13 U	13 U		
Trichloroethene	10 U	13 U	13 U		
Dibromochloromethane	10 U	13 U	13 U		
1,1,2-Trichloroethane	10 U	13 U	13 U		
Benzene	10 U	13 U	13 U		
trans-1,3-Dichloropropene	10 U	13 U	13 U		
Bromoform	10 U	13 U	13 U		
4-Methyl-2-Pentanone	10 U	13 U	13 U		
2-Hexanone	10 U	13 U	13 U		
Tetrachloroethene	10 U	13 U	13 U		
1,1,2,2-Tetrachloroethane	10 U	13 U	13 U		
Toluene	10 U	0.9 J	0.9 J		
Chlorobenzene	10 U	13 U	13 U		
Ethylbenzene	10 U	13 U	13 U		
Styrene	10 U	13 U	13 U		
Xylene (total)	10 U	13 U	13 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-4 S-1 (Lab. #: 71025)					
	% Moisture = 15				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U		
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	2 J	4 JB	4 JB	negate	1
Acetone	7 J	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	12 U	12 U		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	12 U	12 U		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	12 U	12 U		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	12 U	12 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-4 30-32 (Lab. #: 71026)					
	% Moisture = 3				
TCL Volatile Organics	(Undiluted - 5.8 grams extracted)				
Chloromethane	10 U	9 U	9 U	J qualify	15
Bromomethane	10 U	9 U	9 U		
Vinyl Chloride	10 U	9 U	9 U		
Chloroethane	10 U	9 U	9 U		
Methylene Chloride	3 J	3 JB	3 JB	negate	1
Acetone	10 U	9 U	9 U		
Carbon Disulfide	10 U	9 U	9 U		
1,1-Dichloroethene	10 U	9 U	9 U		
1,1-Dichloroethane	10 U	9 U	9 U		
1,2-Dichloroethene (total)	10 U	9 U	9 U		
Chloroform	10 U	9 U	9 U		
1,2-Dichloroethane	10 U	9 U	9 U		
2-Butanone	10 U	9 U	9 U		
1,1,1-Trichloroethane	10 U	9 U	9 U		
Carbon Tetrachloride	10 U	9 U	9 U		
Bromodichloromethane	10 U	9 U	9 U		
1,2-Dichloropropane	10 U	9 U	9 U		
cis-1,3-Dichloropropene	10 U	9 U	9 U		
Trichloroethene	10 U	9 U	9 U		
Dibromochloromethane	10 U	9 U	9 U		
1,1,2-Trichloroethane	10 U	9 U	9 U		
Benzene	10 U	9 U	9 U		
trans-1,3-Dichloropropene	10 U	9 U	9 U		
Bromoform	10 U	9 U	9 U		
4-Methyl-2-Pentanone	10 U	9 U	9 U		
2-Hexanone	10 U	9 U	9 U		
Tetrachloroethene	10 U	9 U	9 U		
1,1,2,2-Tetrachloroethane	10 U	9 U	9 U		
Toluene	10 U	9 U	9 U		
Chlorobenzene	10 U	9 U	9 U		
Ethylbenzene	10 U	9 U	9 U		
Styrene	10 U	9 U	9 U		
Xylene (total)	10 U	9 U	9 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-3 S-1 (Lab. #: 71023)					
	% Moisture = 7				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	2 JB	24 JB	negate	1
Acetone	7 J	11 U	11 U		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	0.2 J	0.2 J		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	0.3 J	0.3 J		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-3 28-31 (Lab. #: 71024)					
	% Moisture = 4				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	7 J	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-2 S-1 (Lab. #: 71021)					
	% Moisture = 10				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	4 JB	4 JB	negate	1
Acetone	7 J	22 B	22 B	J negate	1
Carbon Disulfide	10 U	0.7 J	0.7 J		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	6 J	6 J		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	0.1 J	0.1 J		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	0.1 J	0.1 J		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	0.5 J	0.5 J		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4641

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-2 28-30 (Lab. #: 71022)					
	% Moisture = 15				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	12 U		
Bromomethane	10 U	12 U	12 U		
Vinyl Chloride	10 U	12 U	12 U		
Chloroethane	10 U	12 U	12 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	7 J	10 JB	10 JB	negate	1
Carbon Disulfide	10 U	12 U	12 U		
1,1-Dichloroethene	10 U	12 U	12 U		
1,1-Dichloroethane	10 U	12 U	12 U		
1,2-Dichloroethene (total)	10 U	12 U	12 U		
Chloroform	10 U	12 U	12 U		
1,2-Dichloroethane	10 U	12 U	12 U		
2-Butanone	10 U	12 U	12 U		
1,1,1-Trichloroethane	10 U	12 U	12 U		
Carbon Tetrachloride	10 U	12 U	12 U		
Bromodichloromethane	10 U	12 U	12 U		
1,2-Dichloropropane	10 U	12 U	12 U		
cis-1,3-Dichloropropene	10 U	12 U	12 U		
Trichloroethene	10 U	12 U	12 U		
Dibromochloromethane	10 U	12 U	12 U		
1,1,2-Trichloroethane	10 U	12 U	12 U		
Benzene	10 U	12 U	12 U		
trans-1,3-Dichloropropene	10 U	12 U	12 U		
Bromoform	10 U	12 U	12 U		
4-Methyl-2-Pentanone	10 U	12 U	12 U		
2-Hexanone	10 U	12 U	12 U		
Tetrachloroethene	10 U	12 U	12 U		
1,1,2,2-Tetrachloroethane	10 U	12 U	12 U		
Toluene	10 U	12 U	12 U		
Chlorobenzene	10 U	12 U	12 U		
Ethylbenzene	10 U	12 U	12 U		
Styrene	10 U	12 U	12 U		
Xylene (total)	10 U	0.4 J	0.4 J		
Non-Target Volatile Organics					
None Detected					

Trip Blanks

A trip blank was not associated with this sample delivery group.

Field Blank

No compounds were detected in the one field blank associated with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

No other problems were found with the reported results of any of the samples of this delivery group.

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4641

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc.	Conc.	Reported		
	(PPB)	(PPB)	Conc.		
			Decision		
Field Blank (Lab. #: 71010)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

DATA VALIDATION SUMMARY

Many problems were found with the initial analytical report which was submitted by the laboratory. The laboratory reissued this report on August 31st. Only the revised report is discussed in this data validation.

A Continuing Calibration Summary Form (FORM VII) for the continuing calibration K3507 was not included in the analytical report received on 8/31. This was requested from the laboratory and received in their 9/24 Fax.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
August 31, 1988

Holding Times

All samples were analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tune data.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

A Continuing Calibration Summary Form (FORM VII) for the continuing calibration K3507 was not included in the analytical report received on 8/31. This was requested from the laboratory and received in their 9/24 Fax.

The percent difference of bromomethane was above the 25% quality assurance limit in several of the initial and/or continuing calibrations associated with this sample delivery group. The data for this compound was flagged with the "J" qualifier and footnoted with #15 in the data validation summary table in those samples which were affected by the calibration problem. This compound was not detected in any of the samples of this delivery group. It is possible that very low concentrations of this compound may have been overlooked.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample DW-11 S-2 (Lab. #: 71040) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Low concentrations of methylene chloride and/or acetone were detected in several of the method blanks. These compounds were negated whenever they were detected in a sample which was analyzed with these calibrations.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix SW	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page In CLP	Non-Compliance
F4641	7/13/98	95	Field Blank	71010	Water	Yes	Yes	NA	NA		
F4641	7/13/98	95	DW-2 S-1	71021	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-2 28-30	71022	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-3 S-1	71023	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-3 28-30	71024	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-4 S-1	71025	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-4 30-32	71026	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-5 25-27	71027	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-6 S-1	71029	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-6 19-26	71030	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-7 S-1	71031	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-7 25-27	71032	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-8 S-1	71034	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-8 22-24	71035	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-9 S-1	71038	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-9 27-29	71039	Soil	Yes	NA	NA	NA		
F4641	7/13/98	95	DW-11 S-2	71040	Soil	Yes	No	NA	NA	I-32	BNA Holding Time
F4641	7/13/98	95	DW-11 S-2MS	71040MS	Soil	Yes	No	NA	NA	I-32	BNA Holding Time
F4641	7/13/98	95	DW-11 S-2MSD	71040MSD	Soil	Yes	No	NA	NA	I-32	BNA Holding Time

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For Hazardous Waste Section

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Volatile Organic Analyses - Method 95-1

Samples Received: July 13, 1998

Sample Delivery Group: F4641

Laboratory Reference Numbers:

Field Blank	71010
DW-2 S-1	71021
DW-2 28-30	71022
DW-3 S-1	71023
DW-3 28-30	71024
DW-4 S-1	71025
DW-4 30-32	71026
DW-5 25-27	71027
DW-6 S-1	71029
DW-6 19-26	710330
DW-7 S-1	71031
DW-7 25-27	71032
DW-8 S-1	71034
DW-8 22-24	71035
DW-9 S-1	71038
DW-9 27-29	71039
DW-11 S-2	71040
DW-11 S-2MS	71040MS
DW-11 S-2MSD	71040MSD

Soil samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

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OCT 29 1998

* - Indicates that all criteria were met for this parameter.

For Hazardous Waste Section

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: July 10th through 16th, 1998

Sample Delivery Group: F4073

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-10 S-1 (Lab. #: 70699)					
% Solids = 72.9					
Aluminum	17.380 U	3,940.00 *	3,942.39 *	J	qualify 45
Antimony	1.080 U	1.50 UN	1.22 UN	J	qualify 35
Arsenic	0.700 U	2.00 B	1.96 B		
Barium	0.520 U	42.90 B	42.94 B		
Beryllium	0.100 U	0.14 UN	0.15 UN		
Cadmium	0.160 U	1.00 B	1.05 B		
Calcium	8.980 U	3,590.00	3,591.22		
Chromium	0.340 U	21.30 *	21.29 *	J	qualify 45
Cobalt	0.300 U	4.90 B	4.92 B		
Copper	1.000 U	73.70 *	73.66 *	J	qualify 45
Iron	9.420 U	9,690.00	9,692.73		
Lead	0.580 U	239.00 *	239.37 *	J	qualify 45
Magnesium	8.360 U	2,460.00	2,459.26		
Manganese	0.320 U	64.50	64.50		
Mercury	0.050 U	0.430	0.430	J	qualify 21
Nickel	0.360 U	13.70	13.69		
Potassium	48.808 B	251.00 B	251.41 B		
Selenium	0.940 U	1.30 UN	1.37 UN		
Silver	0.240 U	0.33 UN	0.33 UN		
Sodium	113.400 U	190.00 B	190.43 B		
Thallium	0.820 U	1.10 UN	1.10 UN		
Vanadium	0.320 U	34.90	34.90		
Zinc	1.160 U	222.00 N*	222.17 N*	J	qualify 35, 45
Cyanide	0.500 U	0.69 UN*	0.69 UN*	J	qualify 35

Sample DW-11 S-2 (Lab. #: 71040)

% Solids = 68.5					
Aluminum	17.380 U	3,920.00 *	3,962.04 *	J	qualify 45
Antimony	1.080 U	2.30 BN	2.30 BN	J	qualify 35
Arsenic	0.700 U	1.30 B	1.28 B		
Barium	0.520 U	42.90 B	43.36 B		
Beryllium	0.100 U	0.14 U	0.15 U		
Cadmium	0.160 U	1.30 B	1.35 B		
Calcium	8.980 U	2,540.00	2,560.58		
Chromium	0.340 U	18.90 *	19.07 *	J	qualify 45
Cobalt	0.300 U	4.10 B	4.15 B		
Copper	1.000 U	85.20 *	86.07 *	J	qualify 45
Iron	9.420 U	8,360.00	8,446.72		
Lead	0.580 U	146.00 *	147.80 *	J	qualify 45
Magnesium	8.360 U	1,590.00	1,607.30		
Manganese	0.320 U	55.30	55.85		
Mercury	0.050 U	0.090 B	0.090 B	J	qualify 21
Nickel	0.360 U	12.90	12.98		
Potassium	48.808 B	309.00 B	312.12 B		
Selenium	0.940 U	1.40 U	1.46 U		
Silver	0.240 U	0.43 B	0.44 B		
Sodium	113.400 U	281.00 B	284.29 B		
Thallium	0.820 U	1.20 U	1.17 U		
Vanadium	0.320 U	32.90	33.26		
Zinc	1.160 U	446.00 N*	450.22 N*	J	qualify 35, 45
Cyanide	0.500 U	0.73 UN	0.73 UN	J	qualify 35

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: July 10th through 16th, 1998

Sample Delivery Group: F4073

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision		Qualifiers	Footnotes
Sample DW-16 SWA (Lab. #: 71804)						
% Solids = 97.2						
Aluminum	17.380 U	1,250.00 *	1,260.49 *	J	qualify	45
Antimony	1.080 U	1.10 UN	1.03 UN	J	qualify	35
Arsenic	0.700 U	0.71 U	0.72 U			
Barium	0.520 U	6.00 V	6.01 V			
Beryllium	0.100 U	0.10 U	0.10 U			
Cadmium	0.160 U	0.16 U	0.16 U			
Calcium	8.980 U	105.00 B	105.58 B			
Chromium	0.340 U	2.70 *	2.77 *	J	qualify	45
Cobalt	0.300 U	0.90 B	0.91 B			
Copper	1.000 U	1.90 B*	1.90 B*	J	qualify	45
Iron	9.420 U	3,100.00	3,135.80			
Lead	0.580 U	2.20 *	2.19 *	J	qualify	21, 45
Magnesium	8.360 U	240.00 B	241.98 B			
Manganese	0.320 U	56.20	56.75			
Mercury	0.050 U	0.060 B	0.060 B	J	qualify	21
Nickel	0.360 U	2.60 B	2.64 B			
Potassium	48.808 B	129.00 B	130.72 B			
Selenium	0.940 U	0.96 U	1.03 U			
Silver	0.240 U	0.24 U	0.25 U			
Sodium	113.400 U	116.00 U	116.67 U			
Thallium	0.820 U	0.84 U	0.84 U			
Vanadium	0.320 U	2.80 B	2.87 B			
Zinc	1.160 U	6.60 N*	6.72 N*	J	qualify	35, 45
Cyanide	0.500 U	0.51 UN	0.51 UN	J	qualify	35

Sample DW-16 SWB (Lab. #: 71805)

% Solids = 97.0

Aluminum	17.380 U	1,140.00 *	1,164.54 *	J	qualify	45
Antimony	1.080 U	1.10 UN	1.11 UN	J	qualify	35
Arsenic	0.700 U	0.71 U	0.72 U			
Barium	0.520 U	5.90 B	6.06 B			
Beryllium	0.100 U	0.10 U	0.10 U			
Cadmium	0.160 U	0.16 U	0.16 U			
Calcium	8.980 U	109.00 B	111.11 B			
Chromium	0.340 U	1.60 B	1.63 B	J	qualify	45
Cobalt	0.300 U	0.69 B*	0.70 B*			
Copper	1.000 U	2.00	2.02	J	qualify	45
Iron	9.420 U	2,760.00 *	2,820.62 *			
Lead	0.580 U	3.70 B	3.78 B	J	qualify	21, 45
Magnesium	8.360 U	217.00	220.82			
Manganese	0.320 U	47.20	48.16			
Mercury	0.050 U	0.050 U	0.050 U			
Nickel	0.360 U	1.20 B	1.17 B			
Potassium	48.808 B	141.00 B	144.27 B			
Selenium	0.940 U	0.95 U	0.97 U			
Silver	0.240 U	0.24 U	0.25 U			
Sodium	113.400 U	115.00 U	116.91 U			
Thallium	0.820 U	0.83 U	0.85 U			
Vanadium	0.320 U	3.00 B	3.10 B			
Zinc	1.160 U	7.50 N*	7.69 N*	J	qualify	35, 45
Cyanide	0.500 U	0.52 UN	0.52 UN	J	qualify	35

Laboratory Control Sample

No problems were detected with the recoveries of the water LCS standards.

Serial Dilutions

Sample DW-11 S-2 (Lab. #: 71040) of this sample delivery group was also used for the serial dilution. All of the percent differences which could be calculated were within the required quality assurance limits.

Instrument Detection Limit

No problems with the instrument detection limits were found.

ICP Linear Ranges

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No problems were detected with any of the samples.

Data Validation Summary Table
For Frost Street Sites

Soil TAL Inorganic Analyses

Samples Received: July 10th through 16th, 1998

Sample Delivery Group: F4073

Sample / Analyte	Method Blank Conc. (PPM)	Lab. Reported Conc. (PPM)	QA Validation Reported Conc. Decision		Qualifiers	Footnotes
Field Blank (Lab. #: 71010)						
Aluminum		86.90 U*	86.90 U*	J	qualify	45
Antimony		5.40 UN	5.40 UN	J	qualify	35
Arsenic		3.50 U	3.50 U			
Barium		2.60 U	2.60 U			
Beryllium		0.50 U	0.50 U			
Cadmium		0.80 U	0.80 U			
Calcium		44.90 U	44.90 U			
Chromium		1.70 U*	1.70 U*	J	qualify	45
Cobalt		1.50 U	1.50 U			
Copper		5.00 U*	5.00 U*	J	qualify	45
Iron		80.70 B	80.70 B			
Lead		2.90 U*	2.90 U*	J	qualify	45
Magnesium		41.80 U	41.80 U			
Manganese		1.60 U	1.60 U			
Mercury		0.10 U	0.10 U			
Nickel		1.80 U	1.80 U			
Potassium		236.00 U	326.00 U			
Selenium		4.70 U	4.70 U			
Silver		1.20 U	1.20 U			
Sodium		567.00 U	567.00 U			
Thallium		4.10 U	4.10 U			
Vanadium		2.80 B	2.80 B			
Zinc		5.80 UN*	5.80 UN*	J	qualify	35, 45
Cyanide		10.00 UN	10.00 UN	J	qualify	35
Sample DW-15 S-1 (Lab. #: 70691)						
% Solids = 71.0						
Aluminum	17.380 U	5,070.00 *	5,121.13 *	J	qualify	45
Antimony	1.080 U	1.70 BN	1.67 BN	J	qualify	35
Arsenic	0.700 U	2.80	2.86			
Barium	0.520 U	46.20 B	46.68 B			
Beryllium	0.100 U	0.14 U	0.14 U			
Cadmium	0.160 U	3.40	3.39			
Calcium	8.980 U	3,980.00	4,025.35			
Chromium	0.340 U	33.30 *	33.58 *	J	qualify	45
Cobalt	0.300 U	6.50 B	6.59 B			
Copper	1.000 U	141.00 *	142.23 *	J	qualify	45
Iron	9.420 U	12,500.00	12,616.90			
Lead	0.580 U	364.00 *	367.61 *	J	qualify	45
Magnesium	8.360 U	3,110.00	3,138.03			
Manganese	0.320 U	69.20	69.94			
Mercury	0.050 U	0.210	0.21	J	qualify	21
Nickel	0.360 U	25.00	25.25			
Potassium	48.808 B	286.00 BB	289.30 BB			
Selenium	0.940 U	1.30 U	1.41 U			
Silver	0.240 U	0.50 B	0.50 B			
Sodium	113.400 U	235.00 B	237.01 B			
Thallium	0.820 U	1.10 U	1.13 U			
Vanadium	0.320 U	46.40	46.85			
Zinc	1.160 U	509.00 N*	514.08 N*	J	qualify	35, 45
Cyanide	0.500 U	0.70 U	0.70 U	J	qualify	35

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

Two ICP runs were performed in the analyses of these samples:

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits in the first ICP run with the following exceptions:

<u>Analyte</u>	<u>Initial % Recovery</u>	<u>Final % Recovery</u>
Lead	(ok)	127%
Mercury	125%	(NR)

Low concentrations of lead were only found in samples DW-16 SWA and DW-16 SWB. The lead data for these samples were flagged with the "J" qualifier and footnoted with #21 in the data validation summary table. The low concentrations of lead in these two samples should be considered to be estimated values. The reported concentrations may be slightly overestimated.

Several samples had low concentrations of mercury. These were footnoted with #21 and flagged with the "J" qualifier. These low concentrations may have been slightly overestimated.

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits in the second ICP run with the following exception:

<u>Analyte</u>	<u>Initial % Recovery</u>	<u>Final % Recovery</u>
Lead	123%	(ok)

Only the serial dilution was analyzed with the second CRDL standard. The data were not required to be qualified for the high lead recovery.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

No compounds were detected in either the soil preparation blank associated with the digestions of these samples at concentrations above the CRDL.

A water preparation blank was not analyzed for the field blank.

Calibration Blanks

Several analytes were found in the continuing calibration blanks at concentrations between the CRDL and instrument detection limit. These very low concentration are not required to be noted in the data validation summary table.

Field Blank

Several analytes were found in the one field blank at concentrations between the CRDL and instrument detection limit. These very low concentration are not required to be noted in the data validation summary table and do not affect the end use of the data.

No other problems were noted with the field blank.

ICP Interference Check Sample

The concentration of silver added to solution AB (200 ug/l) was not that required by the NYS DEC ASP program (1,000 ug/l). This does not affect the end use of the data.

No other problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Sample DW-11 S-2 (Lab. #: 71040) of this sample delivery group was used for the matrix spike for the full inorganic TCL analyte list. All recoveries were within the acceptable limits with the following exceptions:

Analyte	MS %Rec	Qualifier
Antimony	65%	35
Zinc	56%	35
Cyanide	68%	35

The low matrix spike recoveries for these three analytes indicates that low concentrations of these analytes may have been overlooked and the concentrations reported may have been underestimated. The data for these analytes were flagged with the "J" qualifier and footnoted with #35 in the data validation summary table.

No problems were detected with any of the post digestion spike recoveries.

Duplicate Analysis

Sample DW-11 S-2 (Lab. #: 71040) of this sample delivery group was also used for the matrix duplicate for the full inorganic TCL analyte list. All recoveries which could be calculated were within the acceptable limits with the following exceptions:

Analyte	MS %Rec	Qualifier
Aluminum	23%	45
Chromium	39%	45
Copper	36%	45
Lead	54%	45
Zinc	44%	45

The data for these analytes should be considered to be estimated values. They were flagged with the "J" qualifier and footnoted with #45 in the data validation summary table.

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For Hazardous Waste Section

SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation
Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
F4073	7/10/98	95	Field Blank	71010	Soil	NA	NA	Yes	Yes		
F4073	7/10/98	95	DW-15 S-1	70691	Soil	NA	NA	Yes	Yes		
F4073	7/10/98	95	DW-10 S-1	70699	Soil	NA	NA	Yes	Yes		
F4073	7/10/98	95	DW-11 S-2	71040	Soil	NA	NA	Yes	Yes		
F4073	7/10/98	95	DW-11 S-2MS	71040MS	Soil	NA	NA	Yes	Yes		
F4073	7/10/98	95	DW-11 S-2DUP	71040DUP	Soil	NA	NA	Yes	Yes		
F4073	7/10/98	95	DW-16 SWA	71804	Soil	NA	NA	Yes	Yes		
F4073	7/10/98	95	DW-16 SWB	71805	Soil	NA	NA	Yes	Yes		

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites**

Soil TAL Inorganic Analyses

Samples Received: July 10th through 16th, 1998

Sample Delivery Group: F4073

Laboratory Reference Numbers:

Field Blank	71010
DW-15 S-1	70691
DW-10 S-1	70699
DW-11 S-2	71040
DW-11 S-2MS	71040MS
DW-11 S-2DUP	71040DUP
DW-16 SWA	71804
DW-16 SWB	71805

Soil samples were received for TAL metals analyses by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- Data Completeness
- Holding Times
- * - Calibration Verification
- CRDL Standard
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
- * - Field Blanks
- * - Preparation Blanks
- Matrix Spike
- Duplicate Analyses
- Detection Limit Results
- Linear Range
- Sample Results

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OCT 29 1998

* - Indicates that all criteria were met for this parameter.

For Hazardous Waste Section

Data Validation Summary

The problems with the matrix spike and matrix duplicate should be noted by all end users of the data.

A water preparation blank was not analyzed for the field blank.

No other problems were found which would affect the end use of the data.


Nancy J. Potak
October 20, 1998

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1673

Calibration File ID: M1674

Initial Calibration File ID: M1641

Associated Samples: DW-15 S-1MSD

Acceptable: yes

Date: 08/11/98

Date: 08/09/98

Time Requirements Met: yes

Page: 684

Page: 645

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: Acenaphthene
PPB

Pyrene

50 919587/584037 * 0.800 = 1.26

1625765/919911 * 0.800 = 1.414

PERCENT DIFFERENCE:

$$(1.298 - 1.260) / 1.298 * 100 = 2.927581$$

$$(1.321 - 1.414) / 1.321 * 100 = -7.040121$$

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1664

Calibration File ID: M1665

Initial Calibration File ID: M1641

Associated Samples: 4458BS

Acceptable: yes

Date: 08/10/98

Date: 08/09/98

Time Requirements Met: yes

Page: 675

Page: 645

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: Acenaphthene
PPB

Pyrene

$$50 \quad 824740/554618 * 0.800 = 1.190$$

$$1722435/954759 * 0.800 = 1.443$$

PERCENT DIFFERENCE:

$$(1.298 - 1.190) / 1.298 * 100 = 8.320493$$

$$(1.321 - 1.443) / 1.321 * 100 = -9.235428$$

SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
 (Page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1640

Initial Calibration File ID: M1641

Associated Samples: 4458BS, DW-15 S-1MSD

Acceptable: yes

Date: 08/09/98

Time Requirements Met: yes

Page: 604

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether *	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF >QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

Footnote:

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:

Nitrobenzene

Chrysene

PPB

20	321646/820679 * 2.000 = 0.784
50	760471/814036 * 0.800 = 0.747
80	1270178/881182 * 0.500 = 0.721
120	1775756/860946 * 0.333 = 0.687
160	1923817/712430 * 0.250 = 0.675

557561/923940 * 2.000 = 1.207
1352196/869712 * 0.800 = 1.244
2444373/965532 * 0.500 = 1.266
3856787/998884 * 0.333 = 1.287
4824382/942413 * 0.250 = 1.280

AV. RRF = 0.723 %RSD = 6.1 %

AV. RRF = 1.257 %RSD = 2.6%

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1631

Calibration File ID: M1632

Initial Calibration File ID: M1464

Associated Samples: SBLKMB203, DW-15 S-1, DW-15 S-1MS, DW-10 S-1

Acceptable: yes

Date: 08/03/98

Date: 07/21/98

Time Requirements Met: yes

Page: 664

Page: 556

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: Acenaphthene
PPB

Pentachlorophenol

50 950959/592972 * 0.800 = 1.283

199990/1165071 * 0.800 = 0.137

PERCENT DIFFERENCE:

$$(1.250 - 1.283) / 1.250 * 100 = -2.64$$

$$(0.172 - 0.137) / 0.172 * 100 = 20.348837$$

SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
 (page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1563

Calibration File ID: M1564

Initial Calibration File ID: M1464

Associated Samples: SBLKBS201C, DW-16 SWA, SW-16 SWB, SW-16 SWBMS, SW-16 SWBMSD

Acceptable: yes

Date: 08/03/98

Date: 07/21/98

Time Requirements Met: yes

Page: 654

Page: 556

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<25.0	>0.800	Acenaphthene *	<25.0	>0.800
bis(2-Chloroethyl)Ether *	<25.0	>0.700	2,4-Dinitrophenol	<25.0	>0.010
2-Chlorophenol *	<25.0	>0.800	4-Nitrophenol	<25.0	>0.010
1,3-Dichlorobenzene *	<25.0	>0.600	Dibenzofuran *	<25.0	>0.800
1,4-Dichlorobenzene *	<25.0	>0.500	2,4-Dinitrotoluene *	<25.0	>0.200
1,2-Dichlorobenzene *	<25.0	>0.400	Diethylphthalate	<25.0	>0.010
2-Methylphenol *	<25.0	>0.700	4-Chlorophenyl-phenylether *	<25.0	>0.400
2,2'-oxybis(1-Chloropropane)	<25.0	>0.010	Fluorene *	<25.0	>0.900
4-Methylphenol *	<25.0	>0.600	4-Nitroaniline	<25.0	>0.010
N-Nitroso-di-n-propylamine *	<25.0	>0.500	4,6-Dinitro-2-methylphenol	<25.0	>0.010
Hexachloroethane *	<25.0	>0.300	N-Nitrosodiphenylamine	<25.0	>0.010
Nitrobenzene *	<25.0	>0.200	4-Bromophenyl-phenylether *	<25.0	>0.100
Isophorone *	<25.0	>0.400	Hexachlorobenzene *	<25.0	>0.100
2-Nitrophenol *	<25.0	>0.100	Pentachlorophenol *	<25.0	>0.050
2,4-Dimethylphenol *	<25.0	>0.200	Phenanthrene *	<25.0	>0.700
bis(2-Chloroethoxy)methane *	<25.0	>0.300	Anthracene *	<25.0	>0.700
2,4-Dichlorophenol *	<25.0	>0.200	Carbazole	<25.0	>0.010
1,2,4-Trichlorobenzene *	<25.0	>0.200	Di-n-butylphthalate	<25.0	>0.010
Naphthalene *	<25.0	>0.700	Fluoranthene *	<25.0	>0.600
4-Chloroaniline	<25.0	>0.010	Pyrene *	<25.0	>0.600
Hexachlorobutadiene	<25.0	>0.010	Butylbenzylphthalate	<25.0	>0.010
4-Chloro-3-methylphenol *	<25.0	>0.200	3,3'-Dichlorobenzidine	<25.0	>0.010
2-Methylnaphthalene *	<25.0	>0.400	Benzo(a)anthracene *	<25.0	>0.800
Hexachlorocyclopentadiene	<25.0	>0.010	Chrysene *	<25.0	>0.700
2,4,6-Trichlorophenol *	<25.0	>0.200	bis(2-Ethylhexyl)phthalate	<25.0	>0.010
2,4,5-Trichlorophenol *	<25.0	>0.200	Di-n-octylphthalate	<25.0	>0.010
2-Chloronaphthalene *	<25.0	>0.800	Benzo(b)fluoranthene *	<25.0	>0.700
2-Nitroaniline	<30.0	>0.010	Benzo(k)fluoranthene *	<25.0	>0.700
Dimethylphthalate	<25.0	>0.010	Benzo(a)pyrene *	<25.0	>0.700
Acenaphthylene *	<25.0	>1.300	Indeno(1,2,3-cd)pyrene *	<25.0	>0.500
2,6-Dinitrotoluene *	<25.0	>0.200	Dibenz(a,h)anthracene *	<25.0	>0.400
3-Nitroaniline	<25.0	>0.010	Benzo(g,h,i)perylene *	<25.0	>0.500
Surrogates:					
Nitrobenzene-d5 *	<25.0	>0.200			
2-Fluorobiphenyl *	<25.0	>0.700			
Terphenyl-d14 *	<25.0	>0.500			
Phenol-d5 *	<25.0	>0.800			
2-Fluorophenol *	<25.0	>0.600			
2,4,6-Tribromophenol	<25.0	>0.010			
2-Chlorophenol-d4 *	<25.0	>0.800			
1,2-Dichlorobenzene-d4 *	<25.0	>0.400			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %D < QC Limit: yes

All Compounds %D < 25%: yes

Footnote:

Footnote:

**SEMIVOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY
(page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

COMPOUND: Naphthalene
PPB

Indeno(1,2,3-cd)pyrene

50 1555272/1159240 * 0.800 = 1.073

1347447/925406 * 0.800 = 1.165

PERCENT DIFFERENCE:

$$(1.148 - 1.073) / 1.148 * 100 = 6.533101$$

$$(1.301 - 1.165) / 1.301 * 100 = 10.453497$$

MEDIUM LEVEL METHOD BLANK: SBLKMB203 (Page 719)

Compound	ppb	<CRDL
Unknown Organic Acid (13.98)	2,000J	NA

LOW LEVEL METHOD BLANK: SBLKSB201C (Page 729)

Compound	ppb	<CRDL
Toluene (7.05)	2200NJ	NA
Unknown Aldol Condensate (9.19)	1,300J	NA
Unknown Aldol Condensate (9.96)	5,500J	NA
Unknown Aldol Condensate (10.69)	140J	NA
Unknown Aldol Condensate (11.30)	11,600J	NA
Unknown (12.14)	94J	NA
Unknown Aldol Condensate (12.45)	150J	NA
Unknown Aldol Condensate (12.73)	140J	NA
Unknown (14.08)	140J	NA
Unknown (17.88)	100J	NA
Unknown (26.65)	130J	NA

SEMIVOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

(Page 1 of 2)

Instrument ID: XBNAMS6

Tune File ID: M1463

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: M1464

Date: 07/21/98

Page: 556

Associated Samples: SBLKBS201C, DW-16 SWA, SW-16 SWB, , SW-16 SWBMS, SW-16 SWBMSD, SBLKMB203, DW-15 S-1, DW-15 S-1MS, DW-10 S-1

TCL COMPOUND LIST

	%RSD	RRF		RSD	RRF
Phenol *	<20.5	>0.800	Acenaphthene *	<20.5	>0.800
bis(2-Chloroethyl)Ether *	<20.5	>0.700	2,4-Dinitrophenol	<100	>0.010
2-Chlorophenol *	<20.5	>0.800	4-Nitrophenol	<100	>0.010
1,3-Dichlorobenzene *	<20.5	>0.600	Dibenzofuran *	<20.5	>0.800
1,4-Dichlorobenzene *	<20.5	>0.500	2,4-Dinitrotoluene *	<20.5	>0.200
1,2-Dichlorobenzene *	<20.5	>0.400	Diethylphthalate	<100	>0.010
2-Methylphenol *	<20.5	>0.700	4-Chlorophenyl-phenylether *	<20.5	>0.400
2,2'-oxybis(1-Chloropropane)	<100	>0.010	Fluorene *	<20.5	>0.900
4-Methylphenol *	<20.5	>0.600	4-Nitroaniline	<100	>0.010
N-Nitroso-di-n-propylamine *	<20.5	>0.500	4,6-Dinitro-2-methylphenol	<100	>0.010
Hexachloroethane *	<20.5	>0.1000	N-Nitrosodiphenylamine	<100	>0.010
Nitrobenzene *	<20.5	>0.200	4-Bromophenyl-phenylether *	<20.5	>0.100
Isophorone *	<20.5	>0.400	Hexachlorobenzene *	<20.5	>0.100
2-Nitrophenol *	<20.5	>0.100	Pentachlorophenol *	<20.5	>0.050
2,4-Dimethylphenol *	<20.5	>0.200	Phenanthrene *	<20.5	>0.700
bis(2-Chloroethoxy)methane *	<20.5	>0.1000	Anthracene *	<20.5	>0.700
2,4-Dichlorophenol *	<20.5	>0.200	Carbazole	<100	>0.010
1,2,4-Trichlorobenzene *	<20.5	>0.200	Di-n-butylphthalate	<100	>0.010
Naphthalene *	<20.5	>0.700	Fluoranthene *	<20.5	>0.600
4-Chloroaniline	<100	>0.010	Pyrene *	<20.5	>0.600
Hexachlorobutadiene	<100	>0.010	Butylbenzylphthalate	<100	>0.010
4-Chloro-3-methylphenol *	<20.5	>0.200	3,3'-Dichlorobenzidine	<100	>0.010
2-Methylnaphthalene *	<20.5	>0.400	Benzo(a)anthracene *	<20.5	>0.800
Hexachlorocyclopentadiene	<100	>0.010	Chrysene *	<20.5	>0.700
2,4,6-Trichlorophenol *	<20.5	>0.200	bis(2-Ethylhexyl)phthalate	<100	>0.010
2,4,5-Trichlorophenol *	<20.5	>0.200	Di-n-octylphthalate	<100	>0.010
2-Chloronaphthalene *	<20.5	>0.800	Benzo(b)fluoranthene *	<20.5	>0.700
2-Nitroaniline	<100	>0.010	Benzo(k)fluoranthene *	<20.5	>0.700
Dimethylphthalate	<100	>0.010	Benzo(a)pyrene *	<20.5	>0.700
Acenaphthylene *	<20.5	>0.1000	Indeno(1,2,3-cd)pyrene *	<20.5	>0.500
2,6-Dinitrotoluene *	<20.5	>0.200	Dibenz(a,h)anthracene *	<20.5	>0.400
3-Nitroaniline	<100	>0.010	Benzo(g,h,i)perylene *	<20.5	>0.500
Surrogates:					
Nitrobenzene-d5 *	<100	>0.200			
2-Fluorobiphenyl *	<20.5	>0.700			
Terphenyl-d14 *	<20.5	>0.500			
Phenol-d5 *	<20.5	>0.800			
2-Fluorophenol *	<20.5	>0.60			
2,4,6-Tribromophenol	<100	>0.01			
2-Chlorophenol-d4 *	<20.5	>0.80			
1,2-Dichlorobenzene-d4 *	<20.5	>0.40			

All Compounds Average RRF >QC Limit: yes

All Compounds Average RRF > 0.05: yes

Footnote:

All Compounds %RSD < QC Limit: yes

Footnote:

**SEMIVOLATILE ORGANICS
INITIAL CALIBRATION SUMMARY
(Page 2 of 2)**

CALCULATION VERIFICATION:

$$(RRF = Ais/Ax * Cis/Cs)$$

Compound:	Phenol	Fluoranthene
PPB		
20	$286111/246914 * 2.000 = 2.317$	$748837/1258044 * 2.000 = 1.190$
50	$691776/250623 * 0.800 = 2.208$	$1757847/1220492 * 0.800 = 1.152$
80	$1088047/262763 * 0.500 = 2.070$	$3286855/1354990 * 0.500 = 1.213$
120	$1805988/280605 * 0.333 = 2.143$	$5060794/1398947 * 0.333 = 1.205$
160	$2363164/273600 * 0.250 = 2.159$	$6428630/1306664 * 0.250 = 1.230$
AV. RRF = 2.180	%RSD = 4.2%	AV. RRF = 1.198 %RSD = 2.5%

Soil TCL Semivolatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th, 1998
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-16 SWB (Lab. #: 71805)					
TCL Semivolatile Organics	(Undiluted)	% Moisture = 3			
Phenol	330 U	38 J	30 J		
bis(2-Chloroethyl)Ether	330 U	340 U	340 U		
2-Chlorophenol	330 U	340 U	340 U		
1,3-Dichlorobenzene	330 U	340 U	340 U		
1,4-Dichlorobenzene	330 U	340 U	340 U		
1,2-Dichlorobenzene	330 U	340 U	340 U		
2-Methylphenol	330 U	340 U	340 U		
bis(2-Chloroisopropyl)ether	330 U	340 U	340 U		
4-Methylphenol	330 U	340 U	340 U		
N-Nitroso-di-n-propylamine	330 U	340 U	340 U		
Hexachloroethane	330 U	340 U	340 U		
Nitrobenzene	330 U	340 U	340 U		
Isophorone	330 U	340 U	340 U		
2-Nitrophenol	330 U	340 U	340 U		
2,4-Dimethylphenol	330 U	340 U	340 U		
bis(2-Chloroethoxy)methane	330 U	340 U	340 U		
2,4-Dichlorophenol	330 U	340 U	340 U		
1,2,4-Trichlorobenzene	330 U	340 U	340 U		
Naphthalene	330 U	340 U	340 U		
4-Chloroaniline	330 U	340 U	340 U		
Hexachlorobutadiene	330 U	340 U	340 U		
4-Chloro-3-methylphenol	330 U	340 U	340 U		
2-Methylnaphthalene	330 U	340 U	340 U		
Hexachlorocyclopentadiene	330 U	340 U	340 U		
2,4,6-Trichlorophenol	330 U	340 U	340 U		
2,4,5-Trichlorophenol	800 U	820 U	860 U		
2-Chloronaphthalene	330 U	340 U	340 U		
2-Nitroaniline	800 U	820 U	860 U		
Dimethylphthalate	330 U	340 U	340 U		
Acenaphthylene	330 U	340 U	340 U		
2,6-Dinitrotoluene	330 U	340 U	340 U		
3-Nitroaniline	800 U	820 U	860 U		
Acenaphthene	330 U	340 U	340 U		
2,4-Dinitrophenol	800 U	820 U	860 U		
4-Nitrophenol	330 U	340 U	340 U		
Dibenzofuran	330 U	340 U	340 U		
2,4-Dinitrotoluene	330 U	340 U	340 U		
Diethylphthalate	330 U	340 U	340 U		
4-Chlorophenyl-phenylether	330 U	340 U	340 U		
Fluorene	330 U	340 U	340 U		
4-Nitroaniline	800 U	820 U	860 U		
4,6-Dinitro-2-methylphenol	800 U	820 U	860 U		
N-Nitrosodiphenylamine (1)	330 U	340 U	340 U		
4-Bromophenyl-phenylether	330 U	340 U	340 U		
Hexachlorobenzene	330 U	340 U	340 U		
Pentachlorophenol	800 U	820 U	860 U		
Phenanthrene	330 U	340 U	340 U		
Anthracene	330 U	340 U	340 U		
Carbazole	330 U	340 U	340 U		
Di-n-Butylphthalate	330 U	340 U	340 U		
Fluoranthene	330 U	340 U	340 U		
Pyrene	330 U	340 U	340 U		
Butylbenzylphthalate	330 U	340 U	340 U		
3,3'-Dichlorobenzidine	330 U	340 U	340 U		
Benzo(a)anthracene	330 U	340 U	340 U		
Chrysene	330 U	340 U	340 U		
Bis(2-Ethylhexyl)phthalate	330 U	340 U	340 U		
Di-n-octylphthalate	330 U	340 U	340 U		
Benzo(b)fluoranthene	330 U	340 U	340 U		
Benzo(k)fluoranthene	330 U	340 U	340 U		
Benzo(a)pyrene	330 U	340 U	340 U		
Indeno(1,2,3-cd)pyrene	330 U	340 U	340 U		
Dibenz(a,h)anthracene	330 U	340 U	340 U		
Benzo(g,h,i)perylene	330 U	340 U	340 U		
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.11)	1,300 J	560 JB	560 JB	negate	1
Unknown Aldol Condensate (9.90)	5,500 J	29,000 JB	29,000 JB	negate	1
Unknown (10.68)	140 J	85 J	85 J	negate	1
Unknown Aldol Condensate (11.28)	1,600 J	1,100 JB	1,100 JB	negate	1
Unknown Aldol Condensate (12.44)	150 J	100 JB	100 JB	negate	1
Unknown Aldol Condensate (12.73)	140 J	74 JB	74 JB	negate	1
Unknown (14.08)	140 J	140 JB	140 JB	negate	1

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Soil Semivolatile Organic Analyses - Method 95-1 2 *Nett*
Samples Received: July 10th through 16th, 1998 *All pages.*
Sample Delivery Group: F4072
Laboratory Reference Numbers:

DW-15 S-1	70691
DW-15 S-1MS	70691MS
DW-15 S-1MSD	70691MSD
DW-10 S-1	70699
DW-16 SWA	71804
DW-16 SWB	71805
DW-16 SWBMS	71805MS
DW-16 SWBMSD	71805MSD

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Page 3

Soil TCL Semivolatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th, 1998
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-10 S-1 (Lab. #: 70699)					
Non-Target Semivolatile Organics					
Unknown Organic Acid (14.03)	2,000 J	11,000 JB	10,800 JB	negate	1, 81
C19H40 Alkane (19.44)	ND	5,400 J	5,400 J	qualify	81
Tetradecanoic Acid (19.86)	ND	7,300 NJ	7,200 NJ	qualify	81
Unknown Alkane (20.22)	ND	5,800 J	5,700 J	qualify	81
Hexadecanoic Acid (21.32)	ND	38,000 NJ	38,100 NJ	qualify	81
Unknown (22.03)	ND	5,200 J	5,100 J	qualify	81
Unknown (25.46)	ND	4,600 J	4,500 J	qualify	81
Unknown (26.75)	ND	2,800 J	2,700 J	qualify	81
Unknown (30.18)	ND	4,600 J	4,500 J	qualify	81
Unknown (21.42)	ND	6,000 J	6,000 J	qualify	81

Soil TCL Semivolatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th, 1998
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-16 SWA (Lab. #: 71804)					
TCL Semivolatile Organics (Undiluted)					
		% Moisture = 3			
Phenol	330 U	21 J	20 J		
bis(2-Chloroethyl)Ether	330 U	340 U	340 U		
2-Chlorophenol	330 U	340 U	340 U		
1,3-Dichlorobenzene	330 U	340 U	340 U		
1,4-Dichlorobenzene	330 U	340 U	340 U		
1,2-Dichlorobenzene	330 U	340 U	340 U		
2-Methylphenol	330 U	340 U	340 U		
bis(2-Chloroisopropyl)ether	330 U	340 U	340 U		
4-Methylphenol	330 U	340 U	340 U		
N-Nitroso-di-n-propylamine	330 U	340 U	340 U		
Hexachloroethane	330 U	340 U	340 U		
Nitrobenzene	330 U	340 U	340 U		
Isophorone	330 U	340 U	340 U		
2-Nitrophenol	330 U	340 U	340 U		
2,4-Dimethylphenol	330 U	340 U	340 U		
bis(2-Chloroethoxy)methane	330 U	340 U	340 U		
2,4-Dichlorophenol	330 U	340 U	340 U		
1,2,4-Trichlorobenzene	330 U	340 U	340 U		
Naphthalene	330 U	340 U	340 U		
4-Chloroaniline	330 U	340 U	340 U		
Hexachlorobutadiene	330 U	340 U	340 U		
4-Chloro-3-methylphenol	330 U	340 U	340 U		
2-Methylnaphthalene	330 U	340 U	340 U		
Hexachlorocyclopentadiene	330 U	340 U	340 U		
2,4,6-Trichlorophenol	330 U	340 U	340 U		
2,4,5-Trichlorophenol	800 U	820 U	860 U		
2-Chloronaphthalene	330 U	340 U	340 U		
2-Nitroaniline	800 U	820 U	860 U		
Dimethylphthalate	330 U	340 U	340 U		
Acenaphthylene	330 U	340 U	340 U		
2,6-Dinitrotoluene	330 U	340 U	340 U		
3-Nitroaniline	800 U	820 U	860 U		
Acenaphthene	330 U	340 U	340 U		
2,4-Dinitrophenol	800 U	820 U	860 U		
4-Nitrophenol	330 U	340 U	340 U		
Dibenzofuran	330 U	340 U	340 U		
2,4-Dinitrotoluene	330 U	340 U	340 U		
Diethylphthalate	330 U	340 U	340 U		
4-Chlorophenyl-phenylether	330 U	340 U	340 U		
Fluorene	330 U	340 U	340 U		
4-Nitroaniline	800 U	820 U	860 U		
4,6-Dinitro-2-methylphenol	800 U	820 U	860 U		
N-Nitrosodiphenylamine (1)	330 U	340 U	340 U		
4-Bromophenyl-phenylether	330 U	340 U	340 U		
Hexachlorobenzene	330 U	340 U	340 U		
Pentachlorophenol	800 U	820 U	860 U		
Phenanthrene	330 U	340 U	340 U		
Anthracene	330 U	340 U	340 U		
Carbazole	330 U	340 U	340 U		
Di-n-Butylphthalate	330 U	340 U	340 U		
Fluoranthene	330 U	340 U	340 U		
Pyrene	330 U	340 U	340 U		
Butylbenzylphthalate	330 U	340 U	340 U		
3,3'-Dichlorobenzidine	330 U	340 U	340 U		
Benzo(a)anthracene	330 U	340 U	340 U		
Chrysene	330 U	340 U	340 U		
Bis(2-Ethylhexyl)phthalate	330 U	340 U	340 U		
Di-n-octylphthalate	330 U	340 U	340 U		
Benzo(b)fluoranthene	330 U	340 U	340 U		
Benzo(k)fluoranthene	330 U	340 U	340 U		
Benzo(a)pyrene	330 U	340 U	340 U		
Indeno(1,2,3-cd)pyrene	330 U	340 U	340 U		
Dibenz(a,h)anthracene	330 U	340 U	340 U		
Benzo(g,h,i)perylene	330 U	340 U	340 U		
Non-Target Semivolatile Organics					
Unknown Aldol Condensate (9.11)	1,300 J	1,100 JB	1,100 JB	negate	1
Unknown Aldol Condensate (9.89)	5,500 J	30,000 JB	30,000 JB	negate	1
Unknown (10.68)	140 J	89 JB	89 JB	negate	1
Unknown Aldol Condensate (11.28)	1,600 J	1,100 JB	1,100 JB	negate	1
Unknown Aldol Condensate (12.44)	150 J	100 JB	100 JB	negate	1
Unknown Aldol Condensate (12.73)	140 J	77 JB	77 JB	negate	1
Unknown (14.07)	140 J	110 JB	110 JB	negate	1

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Page 1

Soil TCL Semivolatile Organic Analyses - Method 95-² *NH*
Samples Received: July 10th through 16th, 1998 *All pages.*
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-15 S-1 (Lab. #: 70691)					
TCL Semivolatile Organics (Medium Level - 1 Gram Analyzed)					
	% Moisture = 29				
Phenol	9,900 U	14,000 U	14,100 U	J qualify	81
bis(2-Chloroethyl)Ether	9,900 U	14,000 U	14,100 U	J qualify	81
2-Chlorophenol	9,900 U	14,000 U	14,100 U	J qualify	81
1,3-Dichlorobenzene	9,900 U	14,000 U	14,100 U	J qualify	81
1,4-Dichlorobenzene	9,900 U	14,000 U	14,100 U	J qualify	81
1,2-Dichlorobenzene	9,900 U	14,000 U	14,100 U	J qualify	81
2-Methylphenol	9,900 U	14,000 U	14,100 U	J qualify	81
bis(2-Chloroisopropyl)ether	9,900 U	14,000 U	14,100 U	J qualify	81
4-Methylphenol	9,900 U	14,000 U	14,100 U	J qualify	81
N-Nitroso-di-n-propylamine	9,900 U	14,000 U	14,100 U	J qualify	81
Hexachloroethane	9,900 U	14,000 U	14,100 U	J qualify	81
Nitrobenzene	9,900 U	14,000 U	14,100 U	J qualify	81
Isophorone	9,900 U	14,000 U	14,100 U	J qualify	81
2-Nitrophenol	9,900 U	14,000 U	14,100 U	J qualify	81
2,4-Dimethylphenol	9,900 U	14,000 U	14,100 U	J qualify	81
bis(2-Chloroethoxy)methane	9,900 U	14,000 U	14,100 U	J qualify	81
2,4-Dichlorophenol	9,900 U	14,000 U	14,100 U	J qualify	81
1,2,4-Trichlorobenzene	9,900 U	14,000 U	14,100 U	J qualify	81
Naphthalene	9,900 U	14,000 U	14,100 U	J qualify	81
4-Chloroaniline	9,900 U	14,000 U	14,100 U	J qualify	81
Hexachlorobutadiene	9,900 U	14,000 U	14,100 U	J qualify	81
4-Chloro-3-methylphenol	9,900 U	14,000 U	14,100 U	J qualify	81
2-Methylnaphthalene	9,900 U	14,000 U	14,100 U	J qualify	81
Hexachlorocyclopentadiene	9,900 U	14,000 U	14,100 U	J qualify	81
2,4,6-Trichlorophenol	9,900 U	14,000 U	14,100 U	J qualify	81
2,4,5-Trichlorophenol	24,000 U	34,000 U	35,100 U	J qualify	81
2-Chloronaphthalene	9,900 U	14,000 U	14,100 U	J qualify	81
2-Nitroaniline	24,000 U	34,000 U	35,100 U	J qualify	81
Dimethylphthalate	9,900 U	14,000 U	14,100 U	J qualify	81
Acenaphthylene	9,900 U	14,000 U	14,100 U	J qualify	81
2,6-Dinitrotoluene	9,900 U	14,000 U	14,100 U	J qualify	81
3-Nitroaniline	24,000 U	34,000 U	35,100 U	J qualify	81
Acenaphthene	9,900 U	14,000 U	14,100 U	J qualify	81
2,4-Dinitrophenol	24,000 U	34,000 U	35,100 U	J qualify	81
4-Nitrophenol	9,900 U	14,000 U	14,100 U	J qualify	81
Dibenzofuran	9,900 U	14,000 U	14,100 U	J qualify	81
2,4-Dinitrotoluene	9,900 U	14,000 U	14,100 U	J qualify	81
Diethylphthalate	9,900 U	14,000 U	14,100 U	J qualify	81
4-Chlorophenyl-phenylether	9,900 U	14,000 U	14,100 U	J qualify	81
Fluorene	9,900 U	14,000 U	14,100 U	J qualify	81
4-Nitroaniline	24,000 U	34,000 U	35,100 U	J qualify	81
4,6-Dinitro-2-methylphenol	24,000 U	34,000 U	35,100 U	J qualify	81
N-Nitrosodiphenylamine (1)	9,900 U	14,000 U	14,100 U	J qualify	81
4-Bromophenyl-phenylether	9,900 U	14,000 U	14,100 U	J qualify	81
Hexachlorobenzene	9,900 U	14,000 U	14,100 U	J qualify	81
Pentachlorophenol	24,000 U	34,000 U	35,100 U	J qualify	81
Phenanthrene	9,900 U	740	600	J qualify	81
Anthracene	9,900 U	14,000 U	14,100 U	J qualify	81
Carbazole	9,900 U	14,000 U	14,100 U	J qualify	81
Di-n-Butylphthalate	9,900 U	14,000 U	14,100 U	J qualify	81
Fluoranthene	9,900 U	1,200 J	1,200 J	qualify	81
Pyrene	9,900 U	950 J	900 J	qualify	81
Butylbenzylphthalate	9,900 U	14,000 U	14,100 U	J qualify	81
3,3'-Dichlorobenzidine	9,900 U	14,000 U	14,100 U	J qualify	81
Benzo(a)anthracene	9,900 U	520 J	600 J	qualify	81
Chrysene	9,900 U	780 J	900 J	qualify	81
Bis(2-Ethylhexyl)phthalate	9,900 U	8,400 J	8,400 J	qualify	81
Di-n-octylphthalate	9,900 U	14,000 U	14,100 U	J qualify	81
Benzo(b)fluoranthene	9,900 U	1,100 J	1,200 J	qualify	81
Benzo(k)fluoranthene	9,900 U	430 J	300 J	qualify	81
Benzo(a)pyrene	9,900 U	540 J	600 J	qualify	81
Indeno(1,2,3-cd)pyrene	9,900 U	410 J	300 J	qualify	81
Dibenz(a,h)anthracene	9,900 U	14,000 U	14,100 U	J qualify	81
Benzo(g,h,i)perylene	9,900 U	440 J	300 J	qualify	81
Non-Target Semivolatile Organics					
Unknown Organic Acid (14.05)	2,000 J	18,000 JB	18,000 JB	negate	1, 81
Unknown (22.47)	ND	3,000 J	3,000 J	qualify	81
Unknown (30.19)	ND	7,100 J	7,200 J	qualify	81
Unknown (31.43)	ND	6,200 J	6,300 J	qualify	81

Soil TCL Semivolatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th, 1998
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-10 S-1 (Lab. #: 70699)					
TCL Semivolatile Organics (Medium Level - 1 Gram Analyzed)					
	% Moisture = 27				
Phenol	9,900 U	14,000 U	13,800 U	J qualify	81
bis(2-Chloroethyl)Ether	9,900 U	14,000 U	13,800 U	J qualify	81
2-Chlorophenol	9,900 U	14,000 U	13,800 U	J qualify	81
1,3-Dichlorobenzene	9,900 U	14,000 U	13,800 U	J qualify	81
1,4-Dichlorobenzene	9,900 U	14,000 U	13,800 U	J qualify	81
1,2-Dichlorobenzene	9,900 U	14,000 U	13,800 U	J qualify	81
2-Methylphenol	9,900 U	14,000 U	13,800 U	J qualify	81
bis(2-Chloroisopropyl)ether	9,900 U	14,000 U	13,800 U	J qualify	81
4-Methylphenol	9,900 U	14,000 U	13,800 U	J qualify	81
N-Nitroso-di-n-propylamine	9,900 U	14,000 U	13,800 U	J qualify	81
Hexachloroethane	9,900 U	14,000 U	13,800 U	J qualify	81
Nitrobenzene	9,900 U	14,000 U	13,800 U	J qualify	81
Isophorone	9,900 U	14,000 U	13,800 U	J qualify	81
2-Nitrophenol	9,900 U	14,000 U	13,800 U	J qualify	81
2,4-Dimethylphenol	9,900 U	14,000 U	13,800 U	J qualify	81
bis(2-Chloroethoxy)methane	9,900 U	14,000 U	13,800 U	J qualify	81
2,4-Dichlorophenol	9,900 U	14,000 U	13,800 U	J qualify	81
1,2,4-Trichlorobenzene	9,900 U	150 J	137 J	qualify	81
Naphthalene	9,900 U	14,000 U	13,800 U	J qualify	81
4-Chloroaniline	9,900 U	14,000 U	13,800 U	J qualify	81
Hexachlorobutadiene	9,900 U	14,000 U	13,800 U	J qualify	81
4-Chloro-3-methylphenol	9,900 U	14,000 U	13,800 U	J qualify	81
2-Methylnaphthalene	9,900 U	14,000 U	13,800 U	J qualify	81
Hexachlorocyclopentadiene	9,900 U	14,000 U	13,800 U	J qualify	81
2,4,6-Trichlorophenol	9,900 U	14,000 U	13,800 U	J qualify	81
2,4,5-Trichlorophenol	24,000 U	33,000 U	34,200 U	J qualify	81
2-Chloronaphthalene	9,900 U	14,000 U	13,800 U	J qualify	81
2-Nitroaniline	24,000 U	33,000 U	34,200 U	J qualify	81
Dimethylphthalate	9,900 U	14,000 U	13,800 U	J qualify	81
Acenaphthylene	9,900 U	14,000 U	13,800 U	J qualify	81
2,6-Dinitrotoluene	9,900 U	14,000 U	13,800 U	J qualify	81
3-Nitroaniline	24,000 U	33,000 U	34,200 U	J qualify	81
Acenaphthene	9,900 U	14,000 U	13,800 U	J qualify	81
2,4-Dinitrophenol	24,000 U	33,000 U	34,200 U	J qualify	81
4-Nitrophenol	9,900 U	14,000 U	13,800 U	J qualify	81
Dibenzofuran	9,900 U	14,000 U	13,800 U	J qualify	81
2,4-Dinitrotoluene	9,900 U	14,000 U	13,800 U	J qualify	81
Diethylphthalate	9,900 U	14,000 U	13,800 U	J qualify	81
4-Chlorophenyl-phenylether	9,900 U	14,000 U	13,800 U	J qualify	81
Fluorene	9,900 U	14,000 U	13,800 U	J qualify	81
4-Nitroaniline	24,000 U	33,000 U	34,200 U	J qualify	81
4,6-Dinitro-2-methylphenol	24,000 U	33,000 U	34,200 U	J qualify	81
N-Nitrosodiphenylamine (1)	9,900 U	14,000 U	13,800 U	J qualify	81
4-Bromophenyl-phenylether	9,900 U	14,000 U	13,800 U	J qualify	81
Hexachlorobenzene	9,900 U	14,000 U	13,800 U	J qualify	81
Pentachlorophenol	24,000 U	33,000 U	34,200 U	J qualify	81
Phenanthrene	9,900 U	990 J	900 J	qualify	81
Anthracene	9,900 U	160 J	137 J	qualify	81
Carbazole	9,900 U	14,000 U	13,800 U	J qualify	81
Di-n-Butylphthalate	9,900 U	14,000 U	13,800 U	J qualify	81
Fluoranthene	9,900 U	2,200 J	2,700 J	qualify	81
Pyrene	9,900 U	1,500 J	1,500 J	qualify	81
Butylbenzylphthalate	9,900 U	14,000 U	13,800 U	J qualify	81
3,3'-Dichlorobenzidine	9,900 U	14,000 U	13,800 U	J qualify	81
Benzo(a)anthracene	9,900 U	760 J	900 J	qualify	81
Chrysene	9,900 U	1,200 J	1,200 J	qualify	81
Bis(2-Ethylhexyl)phthalate	9,900 U	5,100 J	5,400 J	qualify	81
Di-n-octylphthalate	9,900 U	14,000 U	13,800 U	J qualify	81
Benzo(b)fluoranthene	9,900 U	1,900 J	1,500 J	qualify	81
Benzo(k)fluoranthene	9,900 U	820 J	900 J	qualify	81
Benzo(a)pyrene	9,900 U	1,000 J	900 J	qualify	81
Indeno(1,2,3-cd)pyrene	9,900 U	600 J	600 J	qualify	81
Dibenz(a,h)anthracene	9,900 U	14,000 U	13,800 U	J qualify	81
Benzo(g,h,i)perylene	9,900 U	520 J	600 J	qualify	81

Compound	MS %Rec	MSD %Rec	QC Limits	RPD	Limits
Phenol			26-90	38%	35
2-Chlorophenol			25-102		50
1,4-Dichlorobenzene			28-104	33%	27
N-Nitroso-di-n-prop.			41-126		38
1,2,4-Trichlorobenzene			38-107	27%	23
4-Chloro-3-methylphenol			26-103		33
Acenaphthene			31-137	25%	19
4-Nitrophenol			11-114		50
2,4-Dinitrotoluene			28-89		47
Pentachlorophenol			17-109		47
Pyrene			35-142		36

It is possible that low concentrations of some compounds may have been overlooked or underestimated in the samples of this delivery group.

Blank Spike

Both a low level and medium level blank spike were analyzed. All blank spike recoveries were within the required quality assurance limits.

Method Blanks

Low concentrations of several non-target compounds were found in both of the method blanks. These were flagged with the "B" qualifier and negated whenever they were detected in an associated sample.

Field Blank

A field blank was not associated with the samples of this delivery group.

Internal Standard Areas and Retention Times

No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

Slightly different concentrations were calculated for the semivolatile compounds during the data validation than were reported by the laboratory. The discrepancies are due to the number of significant figures reported by the laboratory in their raw data. These differences do not significantly affect the end use of the data. Unless otherwise noted, the concentration reported by the laboratory should be used for all final reporting.

Sample DW-15 S-1 (Lab. #: 70691)

This sample was extracted 12 days after it was received by the laboratory. The NYS DEC ASP protocols require that the extraction be performed within 5 days.

The laboratory's case narrative notes that the sample was "initially extracted as low level, [but] sample extract [was] viscous and required dilution. Low level extraction [was] performed within holding time, but it was not possible to evaluate the sample extract until after extraction holding time. High level extraction performed as soon as low level sample [was] evaluated".

The data for this sample was flagged with the "J" qualifier and footnoted with #81 in the data validation summary table.

Sample DW-10 S-1 (Lab. #: 70699)

This sample was extracted 12 days after it was received by the laboratory. The NYS DEC ASP protocols require that the extraction be performed within 5 days. The laboratory's case narrative notes that the sample was "initially extracted as low level, [but] sample extract [was] viscous and required dilution. Low level extraction [was] performed within holding time, but it was not possible to evaluate the sample extract until after extraction holding time. High level extraction performed as soon as low level sample [was] evaluated".

The data for this sample was flagged with the "J" qualifier and footnoted with #81 in the data validation summary table.

No other problems were found with the reported results of any of the samples of this delivery group.

DATA VALIDATION SUMMARY

Many nonconformances with the NYS DEC ASP protocols were found in the initial analytical report submitted for this sample delivery group. The data package was resubmitted by the laboratory on September 10th. Only the data from the revised report is discussed in this validation.

The laboratory's case narrative notes that "Samples DW-15 S-1 and DW-10 S-1 [were] extracted as high level. Initially extracted as low level, [but] sample extracts [were] viscous and required dilutions. Low level extraction [was] performed within holding time, but it was not possible to evaluate the sample extracts until after extraction holding time. High level extraction performed as soon as low level samples were evaluated".

The problems with the matrix spike and matrix spike duplicate in both the low and medium level analyses should be noted by all end users of the data. These are noted in detail below.

The lack of recovery of 4-nitrophenol in both the matrix spike and matrix spike duplicate of the medium level extraction should be noted by all end users of the data. It is possible that low concentrations of some acid extractable compounds were been overlooked in the medium level analyses of the samples of this delivery group.

No problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak
September 12, 1988

Holding Times

The laboratory's case narrative notes that "Samples DW-15 S-1 and DW-10 S-1 [were] extracted as high level. Initially extracted as low level, [but] sample extracts [were] viscous and required dilutions. Low level extraction [was] performed within holding time, but it was not possible to evaluate the sample extracts until after extraction holding time. High level extraction performed as soon as low level samples were evaluated".

All other samples were extracted and analyzed within the holding times required by the NYS DEC's ASP program.

Tunes

No problems were detected with any of the tunes.

Surrogate Compound Recoveries

All surrogate compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample DW-15 S-1 (Lab. #: 70691) of this sample delivery group was used for the medium level matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits with the following exceptions:

Compound	MS %Rec	MSD %Rec	QC Limits	RPD	Limits
Phenol			26-90		35
2-Chlorophenol			25-102		50
1,4-Dichlorobenzene			28-104		27
N-Nitroso-di-n-prop.	37%	38% <i>NA</i>	41-126		38
1,2,4-Trichlorobenzene			38-107		23
4-Chloro-3-methylphenol			26-103		33
Acenaphthene			31-137		19
4-Nitrophenol	0%	0%	11-114		50
2,4-Dinitrotoluene			28-89		47
Pentachlorophenol			17-109		47
Pyrene			35-142		36

Sample DW-16 SWB (Lab. #: 71805) of this sample delivery group was used for the low level matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits with the following exceptions:

F4072.vi

INTERNAL STANDARD RECOVERY SUMMARY

Sample	IS1		% Rec.	IS2		% Rec.	IS3		% Rec.
	Sample Area	Standard Area		Sample Area	Standard Area		Sample Area	Standard Area	
DW-16 S-1							440,105	967,023	46

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Semivolatile Organic Analyses - Method 95-2

Samples Received: July 10th through 16th, 1998

Sample Delivery Group: F4072

Laboratory Reference Numbers:

DW-15 S-1	70691
DW-15 S-1MS	70691MS
DW-15 S-1MSD	70691MSD
DW-10 S-1	70699
DW-16 SWA	71804
DW-16 SWB	71805
DW-16 SWBMS	71805MS
DW-16 SWBMSD	71805MSD

Soil samples were received for analyses of the semivolatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
 - Holding Times
- * - Calibrations
 - Laboratory Blanks
 - Field Blanks
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
 - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
 - Compound Quantitation
- * - Method Detection Limit

* - Indicates that all criteria were met for this parameter.

**LAWLER, MATUSKY &
SKELLY ENGINEERS LLP**

JAN 27 1999

For Hazardous Waste Section

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9	Level: Low - Soils	
Tune File ID: K3494	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: K3497	Date: 07/16/98	Page: 330
Initial Calibration File ID: K3495	Date: 07/16/98	Page: 302
Associated Samples: VBLKKV197, DW-15 S-1, SMH-E S-1		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
 Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Toluene
PPB		
50	377745/293503 * 1.000 = 1.287	1212433/906915 * 1.000 = 1.337

%D: (1.526 - 1.287) / 1.526 * 100 = 15.661861	%D: (1.370 - 1.337) / 1.370 * 100 = 2.408759

METHOD BLANK: VBLKKV197 (Page 380)

Compound	ppb	<CRDL
Methylene Chloride	2J	10
Acetone	7J	10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS9 **Level:** Low - Soils
Tune File ID: K3506 **Acceptable:** yes **Time Requirements Met:** yes
Calibration File ID: K3507 **Date:** 07/17/98 **Page:** 331
Initial Calibration File ID: K3495 **Date:** 07/16/98 **Page:** 302
Associated Samples: VBLKKV198, SMH-E 24-26, DW-14 S-1, SMH-W S-1, SMH-W 24-26, DW-14 21-23, DW-1 S-1, DW-1 23-25, DW-15 26-28, DW-11 S-1, DW-16 27-31, DW-16 S-1, DW-12 29-31, DW-12 S-1

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Bromomethane	Trichloroethene
PPB		
50	301356/312642 * 1.000 = 0.964	542746/1323566 * 1.000 = 0.41
%D: (1.128 - 0.964) / 1.128 * 100 = 14.539007	%D: (0.459 - 0.410) / 0.459 * 100 = 10.6754	

METHOD BLANK: VBLKKV198 (Page 387)

Compound	ppb	<CRDL
Methylene Chloride	2J	10
Acetone	7J	10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS3	Level: Low	
Tune File ID: C0540	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: C0541	Date: 07/20/98	Page: 325
Initial Calibration File ID: C0435	Date: 07/11/98	Page: 285
Associated Samples: - VBLKCV201B, DW-10 26-28		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Vinyl Chloride	Benzene
PPB		
50	925266/1068500 * 1.000 = 0.866	3454589/4155373 * 1.000 = 0.831
%D:	(1.023 - 0.866) / 1.023 * 100 = 15.347019	%D: (0.871 - 0.831) / 0.871 * 100 = 4.592423

METHOD BLANK: VBLKCV201B (Page 372)

Compound	ppb	<CRDL
Methylene Chloride	138J	10
Unknown Siloxane (16.85)	919J	NA

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS9

Level: Low - Soils

Tune File ID: K3494

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: K3495

Date: 07/16/98

Page: 302

Associated Samples: VBLKKV197, DW-15 S-1, SMH-E S-1, VBLKKV198, SMH-E 24-26, DW-14 S-1, SMH-W S-1, SMH-W 24-26, DW-14 21-23, DW-1 S-1, DW-1 23-25, DW-15 26-28, DW-11 S-1, DW-16 27-31, DW-16 S-1, DW-12 29-31, DW-12 S-1, VBLKKV202, DW-16-SWA, DW-16-SWB, VBLKKV203, 5798BS, SW-14 S-1MS, DW-14 S-1MSD

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300

Surrogates:

Toluene-d8	<30.0	>0.01
Bromofluorobenzene *	<20.5	>0.20
1,2-Dichloroethane-d4	<30.0	>0.01

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Trichloroethene	Toluene
PPB		
10	107552/1127426 * 5.000 = 0.477	253091/877581 * 5.000 = 1.442
20	216902/1122349 * 2.500 = 0.483	503698/872018 * 2.500 = 1.444
50	541045/1201130 * 1.000 = 0.450	1212433/906915 * 1.000 = 1.337
100	946449/1165800 * 0.500 = 0.406	2104608/868101 * 0.500 = 1.212
200	2138268/1117421 * 0.250 = 0.478	4665167/823410 * 0.250 = 1.416

AV. RRF = 0.459

%RSD = 7.0%

AV. RRF = 1.370

%RSD = 7.2%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS3 Level: Low
Tune File ID: C0434 Acceptable: yes Time Requirements Met: yes
Initial Calibration File ID: C0435 Date: 07/11/98 Page: 285
Associated Samples: - VBLKCV199B, DW-11 28-32, VBLKCV201B, DW-10 26-28

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Toluene
PPB		
10	271641/1114687 * 5.000 = 1.218	1078072/3751235 * 5.000 = 1.437
20	572336/1217313 * 2.500 = 1.175	2133632/3958733 * 2.500 = 1.347
50	1599565/1326870 * 1.000 = 1.206	6018375/4437502 * 1.000 = 1.356
100	3391441/1325935 * 0.500 = 1.279	12278427/4235083 * 0.500 = 1.450
200	6190276/1203007 * 0.250 = 1.286	22409953/3905760 * 0.250 = 1.434
AV. RRF = 1.233	%RSD = 3.9%	AV. RRF = 1.405 %RSD = 3.5%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS3

Level: Low

Tune File ID: C0523

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: C0524

Date: 07/18/98

Page: 320

Initial Calibration File ID: C0435

Date: 07/11/98

Page: 285

Associated Samples: - VBLKCV199B, DW-11 28-32

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	33%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: no

Footnote:

Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Carbon Tetrachloride

Tetrachloroethane

PPB

50

2937607/4015020 * 1.000 = 0.732

1747224/3030486 * 1.000 = 0.577

%D: (0.663 - 0.732) / 0.663 * 100 = -10.40724

%D: (0.549 - 0.577) / 0.549 * 100 = 5.100182

MEDIUM LEVEL METHOD BLANK: VBLKCV199B (Page 364)

Compound

ppb

<CRDL

Unknown Siloxane (16.89)

1700J

NA

Unknown Siloxane (18.85)

650J

NA

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-16 SWB (Lab. #: 71805)					
	% Moisture = 3				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	4 JB	4 JB	negate	1
Acetone	9 J	9 JB	9 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

**DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)**

Soil Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th, 1998
Sample Delivery Group: F4072
Laboratory Reference Numbers:

DW-15 S-1	70691
DW-15 26-28	70692
DW-11 28-32	70693
DW-11 S-1	70694
DW-16 27-31	70695
DW-16 S-1	70696
DW-12 29-39	70697
DW-12 S-1	70698
DW-10 S-1	70699 - Not Analyzed
DW-10 26-28	70700
SMH-W S-1	71000
SMH-W 24-26	71001
SMH-E S-1	71002
SMH-E 24-26	71003
DW-14 S-1	71004
DW-14 S-1MS	71004MS
DW-14 S-1MSD	71004MSD
DW-14 21-23	71005
DW-1 S-1	71006
DW-1 23-25	71007
DW-16 SWA	71804
DW-16 SWB	71805

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th through 16th

Sample Delivery Group: F4072

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample DW-1 23-25 (Lab. #: 71007)					
	% Moisture = 3				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	7 J	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th through 16th

Sample Delivery Group: F4072

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample DW-16 SWA (Lab. #: 71804)					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	3 J	4 JB	4 JB	negate	1
Acetone	9 J	10 JB	9 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-14 21-23 (Lab. #: 71005)					
		% Moisture = 3			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	7 J	5 JB	5 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th through 16th

Sample Delivery Group: F4072

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-1 S-1 (Lab. #: 71006)					
		% Moisture = 4			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	7 J	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample SMH-E 24-26 (Lab. #: 71003)					
	% Moisture = 5				
TCL Volatile Organics	(Undiluted - 2.5 grams extracted)				
Chloromethane	10 U	21 U	21 U		
Bromomethane	10 U	21 U	21 U		
Vinyl Chloride	10 U	21 U	21 U		
Chloroethane	10 U	21 U	21 U		
Methylene Chloride	2 J	5 JB	5 JB	negate	1
Acetone	7 J	15 JB	15 JB	negate	1
Carbon Disulfide	10 U	21 U	21 U		
1,1-Dichloroethene	10 U	21 U	21 U		
1,1-Dichloroethane	10 U	21 U	21 U		
1,2-Dichloroethene (total)	10 U	21 U	21 U		
Chloroform	10 U	21 U	21 U		
1,2-Dichloroethane	10 U	21 U	21 U		
2-Butanone	10 U	21 U	21 U		
1,1,1-Trichloroethane	10 U	21 U	21 U		
Carbon Tetrachloride	10 U	21 U	21 U		
Bromodichloromethane	10 U	21 U	21 U		
1,2-Dichloropropane	10 U	21 U	21 U		
cis-1,3-Dichloropropene	10 U	21 U	21 U		
Trichloroethene	10 U	21 U	21 U		
Dibromochloromethane	10 U	21 U	21 U		
1,1,2-Trichloroethane	10 U	21 U	21 U		
Benzene	10 U	21 U	21 U		
trans-1,3-Dichloropropene	10 U	21 U	21 U		
Bromoform	10 U	21 U	21 U		
4-Methyl-2-Pentanone	10 U	21 U	21 U		
2-Hexanone	10 U	21 U	21 U		
Tetrachloroethene	10 U	170	168		
1,1,2,2-Tetrachloroethane	10 U	21 U	21 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	21 U	21 U		
Ethylbenzene	10 U	21 U	21 U		
Styrene	10 U	21 U	21 U		
Xylene (total)	10 U	21 U	21 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-14 S-1 (Lab. #: 71004)					
	% Moisture = 5				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	11 U		
Bromomethane	10 U	10 U	11 U		
Vinyl Chloride	10 U	10 U	11 U		
Chloroethane	10 U	10 U	11 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	7 J	10 U	11 U		
Carbon Disulfide	10 U	10 U	11 U		
1,1-Dichloroethene	10 U	10 U	11 U		
1,1-Dichloroethane	10 U	10 U	11 U		
1,2-Dichloroethene (total)	10 U	10 U	11 U		
Chloroform	10 U	10 U	11 U		
1,2-Dichloroethane	10 U	10 U	11 U		
2-Butanone	10 U	10 U	11 U		
1,1,1-Trichloroethane	10 U	10 U	11 U		
Carbon Tetrachloride	10 U	10 U	11 U		
Bromodichloromethane	10 U	10 U	11 U		
1,2-Dichloropropane	10 U	10 U	11 U		
cis-1,3-Dichloropropene	10 U	10 U	11 U		
Trichloroethene	10 U	10 U	11 U		
Dibromochloromethane	10 U	10 U	11 U		
1,1,2-Trichloroethane	10 U	10 U	11 U		
Benzene	10 U	10 U	11 U		
trans-1,3-Dichloropropene	10 U	10 U	11 U		
Bromoform	10 U	10 U	11 U		
4-Methyl-2-Pentanone	10 U	10 U	11 U		
2-Hexanone	10 U	10 U	11 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	11 U		
Toluene	10 U	10 U	11 U		
Chlorobenzene	10 U	10 U	11 U		
Ethylbenzene	10 U	10 U	11 U		
Styrene	10 U	10 U	11 U		
Xylene (total)	10 U	10 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th through 16th

Sample Delivery Group: F4072

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample SMH-W 24-26 (Lab. #: 71001)					
		% Moisture = 4			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	4 JB	4 JB	negate	1
Acetone	7 J	7 JB	7 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	160	156		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.7 U	0.7 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (15.65)	ND	7 J	7 J	negate	67

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank	Reported	Validation		
	Conc. (PPB)	Conc. (PPB)	Reported Conc. Decision		
Sample SMH-E S-1 (Lab. #: 71002)					
		% Moisture = 10			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	7 J	11 JB	11 JB	negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	8 J	8 J		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	0.5 J	0.5 J		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th through 16th

Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-12 S-1 (Lab. #: 70698)					
		% Moisture = 22			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	13 U	13 U		
Bromomethane	10 U	13 U	13 U		
Vinyl Chloride	10 U	13 U	13 U		
Chloroethane	10 U	13 U	13 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	7 J	14 B	14 B	negate	1
Carbon Disulfide	10 U	13 U	13 U		
1,1-Dichloroethene	10 U	13 U	13 U		
1,1-Dichloroethane	10 U	13 U	13 U		
1,2-Dichloroethene (total)	10 U	0.3 J	0.3 J		
Chloroform	10 U	13 U	13 U		
1,2-Dichloroethane	10 U	13 U	13 U		
2-Butanone	10 U	5 J	6 J		
1,1,1-Trichloroethane	10 U	13 U	13 U		
Carbon Tetrachloride	10 U	13 U	13 U		
Bromodichloromethane	10 U	13 U	13 U		
1,2-Dichloropropane	10 U	13 U	13 U		
cis-1,3-Dichloropropene	10 U	13 U	13 U		
Trichloroethene	10 U	0.3 J	0.3 J		
Dibromochloromethane	10 U	13 U	13 U		
1,1,2-Trichloroethane	10 U	13 U	13 U		
Benzene	10 U	13 U	13 U		
trans-1,3-Dichloropropene	10 U	13 U	13 U		
Bromoform	10 U	13 U	13 U		
4-Methyl-2-Pentanone	10 U	2 J	2 J		
2-Hexanone	10 U	13 U	13 U		
Tetrachloroethene	10 U	0.4 J	0.4 J		
1,1,2,2-Tetrachloroethane	10 U	13 U	13 U		
Toluene	10 U	3 J	3 J		
Chlorobenzene	10 U	13 U	13 U		
Ethylbenzene	10 U	0.2 J	0.2 J		
Styrene	10 U	13 U	13 U		
Xylene (total)	10 U	1 J	1 J		
Non-Target Volatile Organics					
C10H16 Hydrocarbon (13.90)	ND	51 J	50 J		
C10H16 Hydrocarbon (14.95)	ND	15 J	15 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample SMH-W S-1 (Lab. #: 71000)					
		% Moisture = 7			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	7 J	11 U	11 U		
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	1 J	1 J		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	48	48		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	0.6 J	0.6 J		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
Unknown Hydrocarbon (14.70)	ND	12 J	12 J		
Unknown Alkane (14.94)	ND	19 J	19 J		
Unknown Alkane (15.15)	ND	33 J	33 J		
Unknown (15.32)	ND	12 J	12 J		
Unknown (15.49)	ND	8 J	8 J		
Unknown Ailoxane (15.65)	ND	10 J	10 J		
Unknown Alkane (16.08)	ND	9 J	9 J		

Unknown Alkane (16.84)	ND	14 J	14 J
Unknown (17.06)	ND	6 J	7 J
Unknown Alkane (17.60)	ND	12 J	12 J
Unknown Alkane (17.80)	ND	12 J	12 J

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-12 29-31 (Lab. #: 70697)					
		% Moisture = 9			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	7 J	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	11 U	11 U		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	11 U	11 U		
Chlorobenzene	10 U	11 U	11 U		
Ethylbenzene	10 U	11 U	11 U		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	11 U	11 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th through 16th

Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-16 27-31 (Lab. #: 70695)					
		% Moisture = 2			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	2 JB	2 JB	negate	1
Acetone	7 J	6 JB	6 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.3 J	0.3 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	0.5 J	0.5 J		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-16 S-1 (Lab. #: 70696)					
		% Moisture = 20			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	12 U	13 U		
Bromomethane	10 U	12 U	13 U		
Vinyl Chloride	10 U	12 U	13 U		
Chloroethane	10 U	12 U	13 U		
Methylene Chloride	2 J	6 JB	6 JB	negate	1
Acetone	7 J	44 JB	44 JB	negate	1
Carbon Disulfide	10 U	0.9 J	0.9 J		
1,1-Dichloroethene	10 U	12 U	13 U		
1,1-Dichloroethane	10 U	12 U	13 U		
1,2-Dichloroethene (total)	10 U	2 J	2 J		
Chloroform	10 U	12 U	13 U		
1,2-Dichloroethane	10 U	12 U	13 U		
2-Butanone	10 U	18	18		
1,1,1-Trichloroethane	10 U	12 U	13 U		
Carbon Tetrachloride	10 U	12 U	13 U		
Bromodichloromethane	10 U	12 U	13 U		
1,2-Dichloropropane	10 U	12 U	13 U		
cis-1,3-Dichloropropene	10 U	12 U	13 U		
Trichloroethene	10 U	0.7 J	0.7 J		
Dibromochloromethane	10 U	12 U	13 U		
1,1,2-Trichloroethane	10 U	12 U	13 U		
Benzene	10 U	12 U	13 U		
trans-1,3-Dichloropropene	10 U	12 U	13 U		
Bromoform	10 U	12 U	13 U		
4-Methyl-2-Pentanone	10 U	12 U	13 U		
2-Hexanone	10 U	12 U	13 U		
Tetrachloroethene	10 U	1 J	1 J		
1,1,2,2-Tetrachloroethane	10 U	12 U	13 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	2 J	2 J		
Ethylbenzene	10 U	0.4 J	0.4 J		
Styrene	10 U	12 U	13 U		
Xylene (total)	10 U	2 J	2 J		
Non-Target Volatile Organics					
Unknown Hydrocarbon (9.77)	ND	7 J	7 J		
C8H18 Alkane (11.15)	ND	8 J	8 J		
Unknown Hydrocarbon (13.50)	ND	7 J	7 J		
Unknown (13.75)	ND	11 J	11 J		
Unknown Hydrocarbon (14.38)	ND	46 J	46 J		
Unknown Alkane (14.62)	ND	83 J	83 J		
Unknown ALkane (14.74)	ND	25 J	25 J		
Unknown Alkane (14.87)	ND	130 J	128 J		
Unknown Hydrocarbon (15.07)	ND	150 J	150 J		
Unknown Hydrocarbon (15.24)	ND	44 J	44 J		
Unknown (15.40)	ND	68 J	68 J		
Unknown Hydrocarbon (15.57)	ND	43 J	43 J		
Unknown Hydrocarbon (15.79)	ND	11 J	11 J		
Unknown Hydrocarbon (16.00)	ND	25 J	25 J		
Unknown Alkane (16.17)	ND	7 J	7 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-11 28-32 (Lab. #: 70693)					
	% Moisture = 6				
TCL Volatile Organics	(Undiluted - Medium Level Analysis)				
Chloromethane	10 U	11,000 U	10,638 U	J qualify	15
Bromomethane	10 U	11,000 U	10,638 U		
Vinyl Chloride	10 U	11,000 U	10,638 U		
Chloroethane	10 U	11,000 U	10,638 U		
Methylene Chloride	10 U	1,000 J	1,054 J		
Acetone	10 U	11,000 U	10,638 U		
Carbon Disulfide	10 U	11,000 U	10,638 U		
1,1-Dichloroethene	10 U	11,000 U	10,638 U		
1,1-Dichloroethane	10 U	11,000 U	10,638 U		
1,2-Dichloroethene (total)	10 U	11,000 U	10,638 U		
Chloroform	10 U	11,000 U	10,638 U		
1,2-Dichloroethane	10 U	11,000 U	10,638 U		
2-Butanone	10 U	11,000 U	10,638 U		
1,1,1-Trichloroethane	10 U	11,000 U	10,638 U		
Carbon Tetrachloride	10 U	11,000 U	10,638 U		
Bromodichloromethane	10 U	11,000 U	10,638 U		
1,2-Dichloropropane	10 U	11,000 U	10,638 U		
cis-1,3-Dichloropropene	10 U	11,000 U	10,638 U		
Trichloroethene	10 U	1,600 J	1,634 J		
Dibromochloromethane	10 U	11,000 U	10,638 U		
1,1,2-Trichloroethane	10 U	11,000 U	10,638 U		
Benzene	10 U	11,000 U	10,638 U		
trans-1,3-Dichloropropene	10 U	11,000 U	10,638 U		
Bromoform	10 U	11,000 U	10,638 U		
4-Methyl-2-Pentanone	10 U	11,000 U	10,638 U		
2-Hexanone	10 U	11,000 U	10,638 U		
Tetrachloroethene	10 U	47,000	45,745		
1,1,2,2-Tetrachloroethane	10 U	11,000 U	10,638 U		
Toluene	10 U	11,000 U	10,638 U		
Chlorobenzene	10 U	11,000 U	10,638 U		
Ethylbenzene	10 U	11,000 U	10,638 U		
Styrene	10 U	11,000 U	10,638 U		
Xylene (total)	10 U	11,000 U	10,638 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th through 16th

Sample Delivery Group: F4072

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		

Sample DW-11 S-1 (Lab. #: 70694)

% Moisture = 11

TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	11 U	11 U		
Bromomethane	10 U	11 U	11 U		
Vinyl Chloride	10 U	11 U	11 U		
Chloroethane	10 U	11 U	11 U		
Methylene Chloride	2 J	29 B	29 B	J	3
Acetone	7 J	10 JB	10 JB	negate	1
Carbon Disulfide	10 U	11 U	11 U		
1,1-Dichloroethene	10 U	11 U	11 U		
1,1-Dichloroethane	10 U	11 U	11 U		
1,2-Dichloroethene (total)	10 U	11 U	11 U		
Chloroform	10 U	11 U	11 U		
1,2-Dichloroethane	10 U	11 U	11 U		
2-Butanone	10 U	11 U	11 U		
1,1,1-Trichloroethane	10 U	11 U	11 U		
Carbon Tetrachloride	10 U	11 U	11 U		
Bromodichloromethane	10 U	11 U	11 U		
1,2-Dichloropropane	10 U	11 U	11 U		
cis-1,3-Dichloropropene	10 U	11 U	11 U		
Trichloroethene	10 U	6 J	6 J		
Dibromochloromethane	10 U	11 U	11 U		
1,1,2-Trichloroethane	10 U	11 U	11 U		
Benzene	10 U	11 U	11 U		
trans-1,3-Dichloropropene	10 U	11 U	11 U		
Bromoform	10 U	11 U	11 U		
4-Methyl-2-Pentanone	10 U	11 U	11 U		
2-Hexanone	10 U	11 U	11 U		
Tetrachloroethene	10 U	11 U	11 U		
1,1,2,2-Tetrachloroethane	10 U	11 U	11 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	1 J	1 J		
Ethylbenzene	10 U	0.3 J	0.3 J		
Styrene	10 U	11 U	11 U		
Xylene (total)	10 U	1 J	1 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 96-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-15 S-1 (Lab. #: 70691)					
		% Moisture = 29			
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	14 U	14 U		
Bromomethane	10 U	14 U	14 U		
Vinyl Chloride	10 U	14 U	14 U		
Chloroethane	10 U	14 U	14 U		
Methylene Chloride	2 J	4 JB	3 JB	negate	1
Acetone	7 J	28 B	28 B	J negate	1
Carbon Disulfide	10 U	14 U	14 U		
1,1-Dichloroethene	10 U	14 U	14 U		
1,1-Dichloroethane	10 U	14 U	14 U		
1,2-Dichloroethene (total)	10 U	14 U	14 U		
Chloroform	10 U	14 U	14 U		
1,2-Dichloroethane	10 U	14 U	14 U		
2-Butanone	10 U	14 U	14 U		
1,1,1-Trichloroethane	10 U	14 U	14 U		
Carbon Tetrachloride	10 U	14 U	14 U		
Bromodichloromethane	10 U	14 U	14 U		
1,2-Dichloropropane	10 U	14 U	14 U		
cis-1,3-Dichloropropene	10 U	14 U	14 U		
Trichloroethene	10 U	14 U	14 U		
Dibromochloromethane	10 U	14 U	14 U		
1,1,2-Trichloroethane	10 U	14 U	14 U		
Benzene	10 U	14 U	14 U		
trans-1,3-Dichloropropene	10 U	14 U	14 U		
Bromoform	10 U	14 U	14 U		
4-Methyl-2-Pentanone	10 U	14 U	14 U		
2-Hexanone	10 U	14 U	14 U		
Tetrachloroethene	10 U	0.6 J	0.6 J		
1,1,2,2-Tetrachloroethane	10 U	14 U	14 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	14 U	14 U		
Ethylbenzene	10 U	0.7 J	0.7 J		
Styrene	10 U	14 U	14 U		
Xylene (total)	10 U	14 U	14 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Soil TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th
Sample Delivery Group: F4072

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-15 26-28 (Lab. #: 70692)					
	% Moisture = 3				
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	2 J	3 JB	3 JB	negate	1
Acetone	7 J	8 JB	8 JB	negate	1
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

No other problems were found with the reported results of any of the samples of this delivery group.

Holding Times

The laboratory's case narrative notes that sample DW-10 S-1 (Lab. #: 70699) was not analyzed because the holding time was exceeded.

All remaining samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

The percent difference of bromomethane was above the 25% quality assurance limit in several of the initial and/or continuing calibrations associated with this sample delivery group. The data for this compound was flagged with the "J" qualifier and footnoted with #15 in the data validation summary table in those samples which were affected by the calibration problem. This compound was not detected in any of the samples of this delivery group. It is possible that very low concentrations of this compound may have been overlooked.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

No other problems were detected with any of the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample DW-14 S-1 (Lab. #: 71004) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

Low concentrations of methylene chloride, acetone and/or siloxanes were detected in the several of the method blanks. These compounds were negated whenever they were detected in a sample which was analyzed with these calibrations.

Trip Blanks

A trip blank was not associated with this sample delivery group.

Field Blank

A field blank was not analyzed with this sample delivery group.

Internal Standard Areas and Retention Times

The recovery of the chlorobenzene-d5 internal standard in sample DW-16 S-1 (46%) was less than the required 50% quality assurance limit. This sample should have been reanalyzed according to the procedures outlined on page D-II-43 of the NYS DEC ASP manual. The laboratory's case narrative notes that this was not done due to a laboratory oversight.

No other problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results**Sample DW-10 26-26 (Lab. #: 70700)**

This sample was analyzed with a medium level extraction even though all of the detected compounds were less than the diluted quantitation limit. This sample should have been reanalyzed at a lower dilution. The laboratory noted in their revised case narrative that this sample was "analyzed as medium level because elevated Hnu readings and attached GC chromatogram of medium level extract" If a problem was found with the initial analysis, the sample should have been reanalyzed at a lower dilution.

Sample DW-10 S-1 (Lab. #: 70699)

The laboratory's case narrative notes that this sample was not analyzed due to a laboratory oversight.

Sample DW-16 S-1 (Lab. #: 70696)

The recovery of the chlorobenzene-d5 internal standard in this (46%) was less than the required 50% quality assurance limit. This sample should have been reanalyzed according to the procedures outlined on page D-II-43 of the NYS DEC ASP manual. The laboratory's case narrative notes that this was not done due to a laboratory oversight.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Soil Volatile Organic Analyses - Method 95-1
Samples Received: July 10th through 16th, 1998
Sample Delivery Group: F4072
Laboratory Reference Numbers:

DW-15 S-1	70691
DW-15 26-28	70692
DW-11 28-32	70693
DW-11 S-1	70694
DW-16 27-31	70695
DW-16 S-1	70696
DW-12 29-39	70697
DW-12 S-1	70698
DW-10 S-1	70699 - Not Analyzed
DW-10 26-28	70700
SMH-W S-1	71000
SMH-W 24-26	71001
SMH-E S-1	71002
SMH-E 24-26	71003
DW-14 S-1	71004
DW-14 S-1MS	71004MS
DW-14 S-1MSD	71004MSD
DW-14 21-23	71005
DW-1 S-1	71006
DW-1 23-25	71007
DW-16 SWA	71804
DW-16 SWB	71805

Soil samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- Data Completeness
- * - GC/MS Tuning
- Holding Times
- * - Calibrations
- Laboratory Blanks
- Field Blanks
- Trip Blanks
- * - System Monitoring Compound Recoveries
- Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Instrument Detection Limit

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OCT 29 1998

* - Indicates that all criteria were met for this parameter.

For Hazardous Waste Section

DATA VALIDATION SUMMARY

Many nonconformances with the NYS DEC ASP protocols were found in the initial analytical report submitted for this sample delivery group. The data package was resubmitted by the laboratory on September 10th. Only the data from the revised report is discussed in this validation.

Sample DW-10 26-26 (Lab. #: 70700) was analyzed with a medium level extraction even though all of the detected compounds were less than the diluted quantitation limit. The laboratory noted in their revised case narrative that this sample was "analyzed as medium level because elevated Hnu readings and attached GC chromatogram of medium level extract" If a problem was found with the initial analysis, the sample should have been reanalyzed at a lower dilution.

The laboratory's case narrative notes that sample DW-10 S-1 (Lab. #:70699) was not analyzed due to a laboratory oversight.

The recovery of the chlorobenzene-d5 internal standard in sample DW-16 S-1 (46%) was less than the required 50% quality assurance limit. This sample should have been reanalyzed according to the procedures outlined on page D-II-43 of the NYS DEC ASP manual. The laboratory's case narrative notes that this was not done due to a laboratory oversight.

No other problems were found with the analyses of these samples which would affect the end use of the data.


Nancy J. Potak

September 12, 1988

VOLATILE ORGANICS
CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS3
Tune File ID: C0523
Calibration File ID: C0524
Initial Calibration File ID: C0435
Date: 07/18/98
Date: 07/11/98
Acceptable: yes
Page: 142
Page: 122
Time Requirements Met: yes
Associated Samples: VBLKCV199A, TB, SMH-E, TB, DW-2, DW-6, DW-8, MW-8MS, DW-8MSD, TB, DW-9

TCL COMPOUND LIST

Chloromethane	<100	RRF	1,2-Dichloropropane	<100	%D
Bromomethane *	33%	<0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	<0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	<0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	<0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	<0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	<0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	<0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	<0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	<0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	<0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	<0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	<0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	<0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	<0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300

Surrogates:

Toluene-d8	<100	>0.01
Bromofluorobenzene *	<25.0	>0.20
1,2-Dichloroethane-d4	<100	>0.01

All Compounds Average RRF > QC Limit: yes
All Compounds Average RRF > 0.01: yes
All Compounds %D < QC Limit: no

Footnote: 15
Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax * Cis/Cs)

COMPOUND:

Carbon Tetrachloride

Tetrachloroethane

PPB

50

2937607/4015020 * 1.000 = 0.732

1747224/3030486 * 1.000 = 0.577

%D: (0.663 - 0.732) / 0.663 * 100 = -10.40724
%D: (0.549 - 0.577) / 0.549 * 100 = 5.100182

METHOD BLANK: VBLKCV199A (Page 163)

Compound
No compounds were detected in this method blank

ppb

<CRDL

OVERALL ASSESSMENT AND COMMENTS: ok

SUMMARY OF THE ANALYTICAL DATA VALIDATION For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page In CLP	Non-Compliance
F 4072	7/10/98	95	DW-15 S-1	70691	Soil	Yes	No	NA	NA	1-32	ABN Holding Time - 12 Days to Extraction
F 4072	7/10/98	95	DW-15 S-1MS	70691MS	Soil	NA	No	NA	NA	1-32	ABN Holding Time - 12 Days to Extraction
F 4072	7/10/98	95	DW-15 S-1MSD	70691MSD	Soil	NA	No	NA	NA	1-32	ABN Holding Time - 12 Days to Extraction
F 4072	7/10/98	95	DW-15 26-28	70692	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-11 28-32	70693	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-11 S-1	70694	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-16 27-31	70695	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-16 S-1	70696	Soil	No	NA	NA	NA	D-11-43	VOA Internal Standard out - not reanalyzed
F 4072	7/10/98	95	DW-12 29-39	70697	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-12 S-1	70698	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-10 S-1	70699	Soil	No	No	NA	NA	1-32	VOA Not Analyzed, ABN HT - 12 Days Ext.
F 4072	7/10/98	95	DW-10 26-28	70700	Soil	No	NA	NA	NA	B-11-32	VOA Excessive Sample Dilution
F 4072	7/10/98	95	SMH-W S-1	71000	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	SMH-W 24-26	71001	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	SMH-E S-1	71002	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	SMH-E 24-26	71003	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-14 S-1	71004	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-14 S-1MS	71004MS	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-14 S-1MSD	71004MSD	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-14 21-23	71005	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-1 S-1	71006	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-1 23-25	71007	Soil	Yes	NA	NA	NA		
F 4072	7/10/98	95	DW-16 SWA	71804	Soil	Yes	Yes	NA	NA		
F 4072	7/10/98	95	DW-16 SWB	71805	Soil	Yes	Yes	NA	NA		
F 4072	7/10/98	95	DW-16 SWBMS	71805MS	Soil	Yes	Yes	NA	NA		
F 4072	7/10/98	95	W-16 SWBMSD	71805MSD	Soil	Yes	Yes	NA	NA		

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SKELLY ENGINEERS LLP

OCT 29 1998

For Hazardous Waste Section

VOLATILE ORGANICS INITIAL CALIBRATION SUMMARY

Instrument ID: XVOAMS3

Level: Low

Tune File ID: C0434

Acceptable: yes

Time Requirements Met: yes

Initial Calibration File ID: C0435

Date: 07/11/98

Page: 122

Associated Samples: 7845BS, VBLKCV198A, DW-11, DW-12, DW-10, DW-16, DW-15, VBLKCV199A, TB, SMH-E, TB, DW-2, DW-6, DW-8, MW-8MS, DW-8MSD, TB, DW-9

TCL COMPOUND LIST

	%RSD	RRF		%RSD	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<20.5	>0.100	cis-1,3-Dichloropropene *	<20.5	>0.200
Vinyl Chloride *	<20.5	>0.100	Trichloroethene *	<20.5	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<20.5	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<20.5	>0.100
Acetone	<100	>0.010	Benzene *	<20.5	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<20.5	>0.100
1,1-Dichloroethene *	<20.5	>0.100	Bromoform *	<20.5	>0.100
1,1-Dichloroethane *	<20.5	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<20.5	>0.200	Tetrachloroethene *	<20.5	>0.200
1,2-Dichloroethane *	<20.5	>0.100	1,1,2,2-Tetrachloroethane *	<20.5	>0.500
2-Butanone	<100	>0.010	Toluene *	<20.5	>0.400
1,1,1-Trichloroethane *	<20.5	>0.100	Chlorobenzene *	<20.5	>0.500
Carbon Tetrachloride *	<20.5	>0.100	Ethylbenzene *	<20.5	>0.100
Bromodichloromethane *	<20.5	>0.200	Styrene *	<20.5	>0.300
			Xylenes (total)	<20.5	>0.300
Surrogates:					
Toluene-d8	<30.0	>0.01			
Bromofluorobenzene *	<20.5	>0.20			
1,2-Dichloroethane-d4	<30.0	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.05: yes

All Compounds %RSD < QC Limit: yes

All Compounds %RSD < 100%: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	1,1-Dichloroethene	Toluene
PPB		
10	271641/1114687 * 5.000 = 1.218	1078072/3751235 * 5.000 = 1.437
20	572336/1217313 * 2.500 = 1.175	2133632/3958733 * 2.500 = 1.347
50	1599565/1326870 * 1.000 = 1.206	6018375/4437502 * 1.000 = 1.356
100	3391441/1325935 * 0.500 = 1.279	12278427/4235083 * 0.500 = 1.450
200	6190276/1203007 * 0.250 = 1.286	22409953/3905760 * 0.250 = 1.434
AV. RRF = 1.233	%RSD = 3.9%	AV. RRF = 1.405 %RSD = 3.5%

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS3	Level: Low	
Tune File ID: C0508	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: C0511	Date: 07/17/98	Page: 138
Initial Calibration File ID: C0435	Date: 07/11/98	Page: 122
Associated Samples: 7845BS, VBLKCV198A, DW-11, DW-12, DW-10, DW-16, DW-15		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	31%	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: no

Footnote:
 Footnote: 15

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Vinyl Chloride	Ethylbenzene
PPB		
50	912767/1000477 * 1.000 = 0.912	1498704/2890893 * 1.000 = 0.518
%D:	(1.023 - 0.912) / 1.023 * 100 = 10.8504	%D: (0.483 - 0.518) / 0.483 * 100 = -7.246377

METHOD BLANK: VBLKCV198A (Page 158)

Compound	ppb	<CRDL
No compounds were detected in this method blank		

OVERALL ASSESSMENT AND COMMENTS: ok

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-9 (Lab. #: 71037) Received 7/13					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.83)	ND	9 J	9 J	qualify	79

DATA VALIDATION WORKSHEETS
For Frost Street Sites (D002676-32)

Water Volatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4071

Laboratory Reference Numbers:

Received 7/10

Trip Blank	70690
DW-11	70685
DW-12	70686
DW-10	70687
DW-16	70688
DW-15	70689

Received 7/13

Trip Blank	71009
SMH-E	71008
Trip Blank	71036
DW-2	71020
DW-6	71028
DW-8	71033
DW-8MS	71033MS
DW-8MSD	71033MSD
DW-9	71037

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-6 (Lab. #: 71028) Received 7/13					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	qualify
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-8 (Lab. #: 71033) Received 7/13					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 71036) Received 7/13					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	qualify
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		15
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	1 J	1 J		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-2 (Lab. #: 71020) Received 7/13					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 71009) Received 7/13)					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.85)	ND	5 J	5 J	qualify	79

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample SMH-E (Lab. #: 71008) Received 7/13					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	qualify
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		15
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	0.5 J	0.5 J		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	21	21		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.85)	ND	6 J	6 J	negate	5, 79

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-16 (Lab. #: 70688) Received 7/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-15 (Lab. #: 70689) Received 7/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U		
Bromomethane	10 U	10 U	10 U	J	15
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.8 J	0.8 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	1 J	1 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	0.5 J	0.5 J		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	3 J	3 J		
Non-Target Volatile Organics					
Unknown Siloxane (16.88)	ND	8 J	8 J	negate	5, 79
Unknown Siloxane (18.82)	ND	6 J	6 J	qualify	79

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-12 (Lab. #: 70686) Received 7/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.85)	ND	7 J	7 J	negate	5, 79
Ethylidimethylbenzene (17.96)	ND	5 J	5 J		

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Sample DW-10 (Lab. #: 70687) Received 7/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J	qualify 15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	4 J	4 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.86)	ND	7 J	7 J	negate	5, 79

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071

Sample / Analyte	Method Blank Conc. (PPB)	Lab. Reported Conc. (PPB)	QA Validation Reported Conc. Decision	Qualifiers	Footnotes
Trip Blank (Lab. #: 70690) Received 7/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	10 U	10 U		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	10 U	10 U		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	10 U	10 U		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	10 U	10 U		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
Unknown Siloxane (16.83)	ND	5 J	5 J	qualify	79

Data Validation Summary Table
For Frost Street Sites (D002676-32)

Water TCL Volatile Organic Analyses - Method 95-1

Samples Received: July 10th and 13th, 1998

Sample Delivery Group: F4071

Sample / Analyte	Method	Lab.	QA	Qualifiers	Footnotes
	Blank Conc. (PPB)	Reported Conc. (PPB)	Validation Reported Conc. Decision		
Sample DW-11 (Lab. #: 70685) Received 7/10					
TCL Volatile Organics	(Undiluted)				
Chloromethane	10 U	10 U	10 U	J qualify	15
Bromomethane	10 U	10 U	10 U		
Vinyl Chloride	10 U	10 U	10 U		
Chloroethane	10 U	10 U	10 U		
Methylene Chloride	10 U	10 U	10 U		
Acetone	10 U	17	17		
Carbon Disulfide	10 U	10 U	10 U		
1,1-Dichloroethene	10 U	10 U	10 U		
1,1-Dichloroethane	10 U	10 U	10 U		
1,2-Dichloroethene (total)	10 U	10 U	10 U		
Chloroform	10 U	10 U	10 U		
1,2-Dichloroethane	10 U	10 U	10 U		
2-Butanone	10 U	10 U	10 U		
1,1,1-Trichloroethane	10 U	10 U	10 U		
Carbon Tetrachloride	10 U	10 U	10 U		
Bromodichloromethane	10 U	10 U	10 U		
1,2-Dichloropropane	10 U	10 U	10 U		
cis-1,3-Dichloropropene	10 U	10 U	10 U		
Trichloroethene	10 U	10 U	10 U		
Dibromochloromethane	10 U	10 U	10 U		
1,1,2-Trichloroethane	10 U	10 U	10 U		
Benzene	10 U	7 J	7 J		
trans-1,3-Dichloropropene	10 U	10 U	10 U		
Bromoform	10 U	10 U	10 U		
4-Methyl-2-Pentanone	10 U	10 U	10 U		
2-Hexanone	10 U	10 U	10 U		
Tetrachloroethene	10 U	0.5 J	0.5 J		
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U		
Toluene	10 U	0.6 J	0.6 J		
Chlorobenzene	10 U	10 U	10 U		
Ethylbenzene	10 U	10 U	10 U		
Styrene	10 U	10 U	10 U		
Xylene (total)	10 U	10 U	10 U		
Non-Target Volatile Organics					
None Detected					

Holding Times

All samples were extracted and analyzed within the 10 day holding time required by the NYS DEC's ASP program.

Tunes

No problems were found with any of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the NYS DEC's ASP quality assurance limits.

Calibrations

No problems were found with the one initial calibration associated with the analyses of the samples of this delivery group.

The percent difference of bromomethane (32% & 33%) was above the 25% quality assurance limit in both of the continuing calibrations associated with this sample delivery group. The data for this compound was flagged with the "J" qualifier and footnoted with #15 in the data validation summary table. This compound was not detected in any of the samples of this delivery group. It is possible that very low concentrations of this compound may have been overlooked.

Section D 9.3.5.4 of the NYS DEC ASP Manual states that up to 2 compounds may fail the criteria and still meet the minimum response factor and %RSD requirements. These compounds must have a minimum RRF greater or equal to 0.010 and the %RSD must be less than or equal to 40%. This requirement was satisfied in all of the calibrations of this sample delivery group.

Matrix Spike / Matrix Spike Duplicate

Sample DW-8 (Lab. #: 71033) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the acceptable quality control limits.

Blank Spike

No problems were found with the recoveries of the blank spike.

Method Blanks

No compounds were detected in either of the two method blanks.

Trip Blanks

Only a low concentration of acetone was detected in the trip blank received on 7/13. Acetone was not detected in any of the samples received on this date.

Field Blank

A field blank was not associated with this sample delivery group.

Internal Standard Areas and Retention Times

- No problems were found with the recoveries or retention times in any of the internal standards associated with the samples of this delivery group.

Instrument Detection Limits

No problems were detected with the laboratory's reported instrument detection limits.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

**SUMMARY OF THE ANALYTICAL DATA VALIDATION
For Frost Street Sites (D002676-32)**

Water Volatile Organic Analyses - Method 95-1
Samples Received: July 10th and 13th, 1998
Sample Delivery Group: F4071
Laboratory Reference Numbers:

Received 7/10

Trip Blank	70690
DW-11	70685
DW-12	70686
DW-10	70687
DW-16	70688
DW-15	70689

Received 7/13

Trip Blank	71009
SMH-E	71008
Trip Blank	71036
DW-2	71020
DW-6	71028
DW-8	71033
DW-8MS	71033MS
DW-8MSD	71033MSD
DW-9	71037

Water samples were received for analyses of the volatile organic TCL analyte list by NYS DEC ASP protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- * - Calibrations
- * - Laboratory Blanks
 - Field Blanks
 - Trip Blanks
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Compound Identification
- * - Compound Quantitation
- * - Method Detection Limit

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* - Indicates that all criteria were met for this parameter.

OCT 29 1998

For Hazardous Waste Section

DATA VALIDATION SUMMARY

No problems were found with the analyses of these samples which would affect the end use of the data.



Nancy J. Potak
October 20 1988

PROJECT SCHEDULE

SDG	Date of Receipt	Matrix	No. of Samples	Client ID	Lab ID	PARAMETER					Date of Report Received
						TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL Met/CN		
H7281	9/30/98	water	6			86974	+				11/5/98
						86973	QC*				
						86972	+				
						86977	+				
						86976	+				
						86975	+				
						86978	+				
			1	TB							

SUMMARY OF THE ANALYTICAL DATA VALIDATION For Frost Street Sites (D002676-32)

New York State Department of Environmental Conservation Data Validation Summary Form

Group #	Date Received	CLP Year	Sample Number	Lab ID #	Matrix S/W	VOA Compliance	BNA Compliance	TAL Metals Compliance	Cyanide Compliance	Page in CLP	Non-Compliance
F 4071	7/10/98	95	Trip Blank	70690	Water	Yes	NA	NA	NA		
F 4071	7/10/98	95	DW-11	70685	Water	Yes	NA	NA	NA		
F 4071	7/10/98	95	DW-12	70686	Water	Yes	NA	NA	NA		
F 4071	7/10/98	95	DW-10	70687	Water	Yes	NA	NA	NA		
F 4071	7/10/98	95	DW-16	70688	Water	Yes	NA	NA	NA		
F 4071	7/10/98	95	DW-15	70689	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	Trip Blank	71009	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	SMH-E	71008	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	Trip Blank	71036	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	DW-2	71020	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	DW-6	71028	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	DW-8	71033	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	DW-8MS	71033MS	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	DW-8MSD	71033MSD	Water	Yes	NA	NA	NA		
F 4071	7/13/98	95	DW-9	71037	Water	Yes	NA	NA	NA		

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JAN 27 1999

For Hazardous Waste Section

PROJECT SCHEDULE

SDG	Date of Receipt	Matrix	No. of Samples	Client ID	Lab ID	PARAMETER				Date of Report Received
						TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL Met/CN	
H0261	9/4/98 through 9/11/98	water	14	FSGP-44-60-65 FSMW-08A FSMW-08B FSMW-03A FSMW-03B FSMW-09A UN-4-EZ-EM FSMW-10A FSMW-10B FSMW-09B NC-6 FSMW-07A FSMW-05B FSMW-05A TB TB TB TB	82143	QC*				10/12/98
					82146	+				
					82147	+				
					82148	+				
					82149	+				
					82605	+				
					82606	+				
					82912	+				
					82913	+				
					82914	+				
					83324	+				
					83325	+				
					83326	+				
					83863	+				
H0262	9/4/98 through 9/11/98	soil	16	FSGP-04-19-21 89DWA-19-31-33 101DWA-7-8-12 101DWA-7-18-12 101DWA-7-30-34 101DWA-7-40-44 101DWA-7-50-54 101DWA-3-8-12 101DWA-3-18-22 101DWA-3-30-34 101DWA-3-40-44 101DWA-3-50-53 101DWA-8-8-12 101DWA-8-18-22 101DWA-8-30-34 101DWA-8-40-44	82150	+				10/12/98
					82607	+				
					82915	+				
					83323	+				
					83864	+				
					82144	+				
					82145	QC*				
					82907	+				
					82908	+				
					82909	+				
					82910	+				
					82911	+				
					83314	+				
					83315	+				
83316	+									
83317	+									
83318	+									
83319	+									
83320	+									
83321	+									
83322	+									

PROJECT SCHEDULE
NYSDEC FROST STREET SITE No. 1-30-043 (July - September 1998)

SDG	Date of Receipt	Matrix	No. of Samples	Client ID	Lab ID	PARAMETER				Date of Report Received
						TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL Met/CN	
H1012	9/9/98	water	3	FSMW-06A FSMW-06B FSMW-07B TB	82705	QC*				10/12/98
					82706	+				
					82704	+				
					82707	+				
H3141	9/16/98 through 9/25/98	soil	14 & 1	101DW-11-SS-1 101DW-11-20-24 101DW-12-8-12 101DW-12-18-22 101DW-12-30-34 101DW-12-40-44 101DW-12-50-54 101DW-13-8-12 101DW-13-18-22 101DW-13-30-34 101DW-13-40-44 101FSGP-1-18-22 101FSGP-2-18-22 101FSGP-2-50-54	84252	+	QC*			11/23/98
					84253	+				
					84254	+				
					84255	+				
					84256	QC*				
					84257	+				
					84258	+				
					84711	+				
					84712	+				
					84713	+				
					84714	+				
					86000	+				
					86001	+				
					86002	+				
					84252				QC*	
					84252					
H3151	9/16/98 through 9/18/98	water	9	101DW-7-63-64 101DW-7-80-81 101DW-7-90-91 101DW-12-63-64 101DW-12-79-80 101DW-12-90-91 101DW-13-63-64 101DW-13-79-80 101DW-13-90-91 TB TB	84717	+				11/5/98
					84716	+				
					84715	+				
					84261	QC*				
					84260	+				
					84259	+				
					84720	+				
					84719	+				
					84718	+				
					84262	+				
					84721	+				
					84721	+				

PROJECT SCHEDULE
NYSDEC FROST STREET SITE No. 1-30-043 (July - September 1998)

SDG	Date of Receipt	Matrix	No. of Samples	Client ID	Lab ID	PARAMETER					Date of Report Received
						TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL Met/CN		
G2812	8/12/98 through 8/20/98	soil	3 & 2 & 2	DWA-7-40-44 101SS-1 101SS-2 SSEB-1 (FB) TB	76699	+					10/8/98
					78279	QC	QC	QC			
					78277	+	+	+			
					78545	+	+	+			
					78546	+					
G2813	8/19/98 through 8/20/98	soil	2	101SS-1 101SS-2 SSEB-1 (FB)	78279				QC	10/8/98	
					78279				+		
					78545				+		
G7851	8/27/98 through 9/3/98	soil	18 & 13 & 13	DW101-3-S DW101-4-S DW101-10A-S 101DWA-5-40-44 DW101-2-S DW101-7-S DW101-8-S DW101-5-S DW101-6-S DW101-1-S DW101-9-S DW101-12-S SMH101-13-S DW101-11-S 89DWA-SMH-W 89DWA-05 101DWA-SMH-E 89DWA-18-50-54 89DWA-18-51-53 89DWA-16-31-33	80564	-	+	+		10/13/98	
					80565	-	+	+			
					80566	QC	QC*	QC			
					80567	+					
					80568	+	+	+			
					80569	+	+	+			
					80570	+	+	+			
					80571	+	+	+			
					80572	+	+	+			
					80573	+	+	+			
					80574	+	+	+			
					80575	+	+	+			
					80576	+	+	+			
					80577	+	+	+			
					80578	QC					
					80579	+					
					80580	QC*					
					81101	+					
					81444	+					
					81701	+					

PROJECT SCHEDULE
NYSDEC FROST STREET SITE No. 1-30-043 (July - September 1998)

SDG	Date of Receipt	Matrix	No. of Samples	Client ID	Lab ID	PARAMETER				Date of Report Received
						TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL Met/CN	
G7852	8/27/98	soil	13	DW101-3-S	80564				+	10/12/98
				DW101-4-S	80565				+	
				DW101-10A-S	80566				QC ¹	
				DW101-2-S	80568				+	
				DW101-7-S	80569				+	
				DW101-8-S	80570				+	
				DW101-5-S	80571				+	
				DW101-6-S	80572				+	
				DW101-1-S	80573				QC ²	
				DW101-9-S	80574				+	
				DW101-12-S	80575				+	
				DW101-13-S	80576				+	
				DW101-11-S	80577				+	
G8771	9/4/98 through 9/11/98	water	13	MW-5-Anson	81098	+				10/1/98
				LRF-1-Frost	81099	+				
				MW-1-EZ-EM	81100	+				
				FSMW-02A	81437	QC				
				FSMW-02B	81438	+				
				FSMW-02C	81439	+				
				FSMW-04A	81440	+				
				FSGP-03-60-65	81442	+				
				101DWA-8-79-80	81443	+				
				FSMW-04B	81697	+				
				FSMW-01B	81698	+				
				FSMW-01A	81699	+				
				89DWA-SMHE-60-65	81702	+				
			3	TB	81102	+				
				TB	81441	+				
				TB	81700	+				

PROJECT SCHEDULE
NYSDEC FROST STREET SITE No. 1-30-043 (July - September 1998)

SDG	Date of Receipt	Matrix	No. of Samples	Client ID	Lab ID	PARAMETER				Date of Report Received
						TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL Met/CN	
F4071	7/10/98 through 7/13/98	water	10		DW-2	+				8/5/98 Reissue: 10/8/98
					DW-6	+				
					DW-8	QC				
					DW-9	+				
					DW-10	+				
					DW-11	+				
					DW-12	+				
					DW-15	+				
					DW-16	+				
					SMH-E	+				
					TB	+				
					TB	+				
					TB	+				
					71020	+				
					71028	+				
					71033	QC				
F4072	7/10/98 through 7/16/98	soil	19 (20) & 4		DW-1-S-1	+				8/20/98 Reissue: 10/9/98
					DW-1-23-25	+				
					DW-10-S-1	-				
					DW-10-26-28	+				
					DW-11-S-1	+				
					DW-11-28-32	+				
					DW-12-S-1	+				
					DW-12-29-31	+				
					DW-14-S-1	QC*				
					DW-14-21-23	+				
					DW-15-S-1	+				
					DW-15-26-28	+				
					DW-16-S-1	+				
					DW-16-27-31	+				
					DW-16-SWA	+				
					DW-16-SWB	+				
					SMH-E-S-1	+				
					SMH-E-24-26	+				
					SMH-W-S-1	+				
					SMH-W-24-26	+				
					71006	+				
					71007	+				
					70699	-				
					70700	+				
					70694	+				
					70693	+				
					70698	+				
					70697	+				
					71004	QC*				
					71005	+				
					70691	+				
					70692	+				
					70696	+				
					70695	+				
					71804	+				
					71805	+				
					71002	+				
					71003	+				
					71000	+				
					71001	+				

PROJECT SCHEDULE
NYSDEC FROST STREET SITE No. 1-30-043 (July - September 1998)

SDG	Date of Receipt	Matrix	No. of Samples	Client ID	Lab ID	PARAMETER				Date of Report Received
						TCL VOCs	TCL SVOCs	TCL Pest/PCBs	TAL Met/CN	
F4073	7/10/98	soil	5	DW-10-S-1	70699				+	8/19/98
				DW-11-S-2	71040				QC	
				DW-15-S-1	70691				+	
				DW-16-SWA	71804				+	
				DW-16-SWB	71805				+	
				FB	71010				+	
F4641	7/13/98	soil	16 & 1	DW-2-S-1	71021	+				8/19/98 Reissue: 8/31/98
				DW-2-28-30	71022	+				
				DW-3-S-1	71023	+				
				DW-3-28-30	71024	+				
				DW-4-S-1	71025	+				
				DW-4-30-32	71026	+				
				DW-5-25-27	71027	+				
				DW-6-S-1	71029	+				
				DW-6-19-26	71030	+				
				DW-7-S-1	71031	+				
				DW-7-25-27	71032	+				
				DW-8-S-1	71034	+				
				DW-8-22-24	71035	+				
				DW-9-S-1	71038	+				
G2811	8/12/98 through 8/19/98	water	1 & 1	DW-9-27-29	71039	+				10/1/98
				DW-11-S-2	71040	QC	QC			
				FB	71010	+	+			
				DWA-7A-79-80	76698	+				
				101DW-9-SW	78276	QC				
				TB	76700	+				
				TB	78278	+				

Predigestion spike recovery of cyanide at 68.1% was below the QA acceptance limits. Accordingly, all the reported data, numerical values and nondetects, should be considered estimated, possibly biased slightly low and were flagged with a **g** in the data summary table.

4. In SDG G2813, soil sample 101SS-1, No. 78279, was utilized as spike and duplicate samples in the analyses of TAL metals and cyanide. Matrix spike recovery for nickel was below QA limit. Nickel results reported for the soil samples were qualified by the data validator as estimated, possibly biased low and were flagged with a **g** in the data summary table. Recoveries in the matrix duplicate analysis resulted in RPDs of calcium, chromium, copper, magnesium and nickel greater than the 20% QA limit. All the reported data for these analytes should be considered estimated; they may be biased low for calcium and magnesium and possibly biased high for chromium, copper and nickel; and flagged with a **g** in the data summary table.

5. In SDG G2813, a preparation blank was not analyzed for the water sample SSEB-1, No. 78545. A matrix spike, a matrix duplicate and a water Laboratory Control Sample (LCS) were not analyzed for this water sample, neither was applicable batch quality assurance (QA) data provided. The data for the water sample was qualified on the basis of the soil quality assurance data of the SDG G2813. As advised by the data validator, the erroneous "N" and "*" qualifiers should be removed from sample SSEB-1's inorganic results in the data summary table.

6. In SDG G7852, sample DW101-1-S, No. 80573, was utilized as spike and duplicate samples in the analyses of TAL metals and sample DW101-10A-S, No. 80566 for cyanide QC samples.

Matrix spike recoveries for TAL metals and cyanide were within QA limits. Recoveries in the matrix duplicate analysis resulted in RPDs of chromium (101%) and iron (23%) greater than the 20% QA limit. All the reported iron data should be considered estimated, while all the chromium data should be considered highly estimated, with possible slightly high bias, and flagged with a **g** in the data summary table.

7. In SDG H3142, the recovery of CRDL standard for lead was slightly above the quality assurance limit. No qualification was recommended by the data validator based on the elevated concentration of lead detected in the single sample of this delivery group.

Sample 101DW11-SS-1, No. 84252 was also utilized as spike and duplicate for TAL metals and cyanide. Recovery of copper matrix spike was greater than its QA limit. The reported copper result should be considered estimated, possibly biased slightly high. Matrix duplicate analysis showed outlying RPD for iron. The reported iron result should be considered estimated, possibly biased slightly low. Copper and iron results were flagged with a **g** in the data summary table.

Estimated numerical values are usable to show detection and the magnitude of the target analyte in the relevant samples. Undetected values when estimated are not suitable to demonstrate that contamination is not present in the affected samples but are useable to indicate that elevated levels of these target analytes were not present in the affected samples.

In every other respect of data validation and review, no other problems were found and the inorganic results are usable as reported by the laboratory.

5. The **P** qualifier is used by the laboratory for a pesticide or Aroclor numerical data when there is a greater than 25% difference for detected concentrations between the two GC columns as documented by Form X. The lower of the two values is reported on Form I and flagged with a **P** qualifier. When results are qualified in this manner, they should be considered estimated, possibly biased slightly low, without additional general qualifier.

6. In SDG G7851, several samples were reanalyzed at an appropriate dilution due to high concentrations of DDE, DDD and/or DDT; and both sets of data were submitted by the laboratory. Those results which exceeded the calibration range of linearity were reported by the laboratory qualified with an **E**. These results were also qualified by the data validator as highly estimated and not to be used. Values for these compounds should be taken from the corresponding dilution analysis, flagged with a **d** in the data summary table, and should be considered estimated, possibly biased slightly low. The remaining values in the reports of dilution analyses were qualified by the data validator as estimated and should not be used in the data summary tables. The following samples were affected:

DW101-8-S, No. 80570 and DW101-8-SD1, No. 80570D1 (10-fold dilution);
DW101-12-SD1, No. 80575D1 (5-fold dilution) and DW101-12-SD2, No. 80575D2 (50-fold dilution);
SMH101-13-S, No. 80576 and SMH101-13-SD1, No. 80576D1 (500-fold dilution).

5. The reports of SDGs G2812 and G7851 furnished instrument detection limits which outdated the protocol required limit of use. Basic reporting requirements of protocol were not adequately observed by the laboratory in regards to provide appropriate sets of raw data in support of the analytical data and the related QA/QC measures. The deliverables for single and multicomponent pesticides and Aroclors were not in full compliance of the protocol requirements as outlined in Exhibit B, pages 22 through 26 of NYSDEC ASP, October 1995 update. However, the data validator made the best effort to carefully evaluate and utilize all the available submitted and partially resubmitted information in generating the validation report.

Estimated numerical values are useful to indicate the relative magnitude of these analytes in the affected samples. Nondetects, when estimated are not useable to demonstrate that the analytes of concern are not present but useable to indicate that elevated levels of these compounds were not present in the related samples.

In every other respect of data validation and review, the TCL Pest/PCB results are usable as reported by the laboratory.

Metals and Cyanide Analyses

Soil and water samples submitted to STL/Envirotech were analyzed for TAL metals and cyanide in accordance with methodologies of NYSDEC ASP Superfund CLP Inorganics and 335.2, respectively. The affect of QC issues addressed by the data validator and the useability of data are discussed below.

1. In SDG F4073, the recoveries of CRDL standards for lead and mercury were slightly above the quality assurance limits. The reported numerical results have been qualified by the data validator as estimated, possibly biased slightly high and are flagged with a **g** in the summary table. The undetected lead and mercury results were not affected.

In SDG G7852, the recovery of lead CRDL standard was slightly above the quality assurance limit. The reported numerical result was qualified by the data validator as estimated, possibly biased slightly high and are flagged with a **g** in the summary table. The undetected lead results were not affected.

2. A water preparation blank was not analyzed for the field (equipment rinsate) blank sample, No. 71010 processed in SDG F4073.

3. Sample DW-11-S-2, No. 71040, was utilized as spike and duplicate samples in the analyses of TAL metals and cyanide of SDG F4073.

Predigestion spike recoveries of antimony, zinc and cyanide were below the quality assurance (QA) acceptance limits, the appropriate results, numerical values and nondetects, were qualified by the data validator as estimated, possibly biased slightly low and were flagged with a **g** in the data summary table. In the matrix duplicate analysis, aluminum, chromium, copper, lead and zinc were detected at reduced concentrations resulting in Relative Percent Difference (RPD) values greater than the 20% QA limit. All the reported data for these analytes should be considered estimated, possibly biased slightly high and flagged with a **g** in the data summary table.

Result of pyrene in sample DW101-10A-S should be considered estimated. Results of 1,4-dichlorobenzene, N-nitroso-di-n-propylamine, 1,2,4-trichlorobenzene, 4-chloro-3-methylphenol and acenaphthene should be considered estimated, possibly biased slightly low. These estimated values were flagged with a **g** in the data summary table. It is possible that some low concentrations of semivolatile compounds may have been overlooked in the processing of sample DW101-10A-S.

12. In SDG G7851, several soil samples were analyzed at varying dilutions of the extracts obtained in low level extractions, even though there did not appear to be a high concentration of any semivolatiles in the samples. The samples of concern are listed below.

DW101-4-S, No. 80565, 5-fold,
DW101-8-S, No. 80570, 5-fold,

DW101-1-S, No. 80572, 5-fold,
DW101-12-S, No. 80575, 25-fold.

The data validator stated that the laboratory should have provided reason for such measures in the case narrative. Results from possible lower dilutions were not submitted. Reported results should be considered estimated, possibly biased low and flagged with a **g** in the data summary table. Numerical results should also be flagged with a **d** in the summary table to indicate they were derived from analysis at dilution.

Samples DW101-9-S, No. 80574 and DW101-11-S, No. 80577 were each analyzed at 2-fold dilution. Sample SMH101-13-S, No. 80576, was analyzed at 10-fold dilution. Numerical results should be flagged with a **d** in the summary table and should be considered estimated, possibly biased slightly low, due to dilution.

In addition, the presence of 1,1,2,2-tetrachloroethane as reported in the non-target compounds listed for DW101-1-S was negated by the data validator since it is a target compound in the volatile organics and marked on the sample's Form I for SVOCs accordingly.

13. In SDG H3141, sample 101DW-11-SS-1, No. 84252 was analyzed at 5-fold dilution. Numerical results should be flagged with a **d** in the summary table and should be considered estimated, possibly biased slightly low, due to dilution.

14. Results of field (equipment rinsate) blank, No. 71010, analyzed with SDG F4641 are useable as reported by the laboratory.

The qualified numerical values are useable to show the relative levels of these compounds in the affected samples. Nondetects when estimated are useable to indicate that elevated levels of these compounds were not present in the relevant sample.

All QA/QC requirements were within acceptance limits and met the applicable criteria. No problems were found with the reported data of any of the samples of this SDG and the TCL SVOC results are useable as reported by the laboratory.

Pesticides and PCBs Analyses

Soil and sediment samples submitted to STL/Envirotech were analyzed for TCL Pest/PCBs by NYSDEC ASP Superfund CLP Method 95-3. The QC issues addressed by the data validator and the useability of data are discussed below.

1. In SDGs G2812, neither water matrix spike nor a water blank spike were analyzed in association with water sample SSEB-1, No. 78545 (equipment rinsate).

Field (equipment rinsate) blank, No. 71010, reported in SDGs F4073 and F4641, was not submitted for Pest/PCB analysis due to a sampling oversight.

2. In the initial calibrations related to SDG G2812 and those related to SDG G7851, the protocol required concentrations did not appear to have been used in the INDH standard.

3. In SDG G2812, concentrations of DDT in soil samples 101SS-1, No. 78279 and 101SS-2, No. 78277, respectively were qualified estimated, possibly biased slightly high due to the outlying RPD of DDT in the pertinent PEM03 standard on the DB-1701 column and flagged with a g in the data summary table.

4. In SDG G7851, surrogate recoveries were higher than the required QA limits in four samples. Three samples, DW101-12-S, DW101-3-S and DW101-11-S, presented the recovery of only one surrogate outside of the QA limit and their results did not require further qualification. However, in sample DW101-4-S, No. 80565, both surrogates were above the QA limits. All the pesticide and PCB results in this sample were qualified by the data validator as estimated, possibly biased high and were flagged with a g in the data summary table.

5. In SDG F4072, soil samples DW-15-S-1, No. 70691 and DW-10-S-1, No. 70699 were initially processed by low level extraction and subsequently were subjected to medium level extraction. The SDG Narrative referenced this switch in procedure as due to the "viscous" nature of final concentrate obtained in the initial low level process. Results acquired from the initial low-level extraction of these samples at greater final volume and/or suitable dilution(s) were not submitted. Medium level extractions were performed twelve (12) days after Verified Time of Sample Receipt (VTSR), slightly exceeding the ASP holding time of 10 days for soil samples but within technical holding time (EPA, fourteen (14) days from sample collection). The results are not affected and useable as reported by the laboratory.

6. In SDG F4641, one soil sample, DW-11-S-2, No. 71040, was extracted, concentrated, reextracted as described above. Medium level extraction was performed nine (9) days after VTSR, within the ASP holding time of 10 days for soil samples as described in the applicable method. Potentially useable results acquired from the initial low-level extraction of these samples at greater final volume and/or suitable dilution(s) were not submitted. The reported results are useable without further qualification.

7. Medium level matrix spike/matrix spike duplicate (MS/MSD) extractions performed on sample DW-15-S-1, No. 70691, SDG F4072, showed no recoveries for 4-nitrophenol and recoveries of N-nitroso-di-n-propylamine below QC limit. Reported results of these compounds in sample DW-15-S-1 should be considered estimated, possibly biased low and flagged with a g in the data summary table. Additionally, it is possible that low concentrations of some acid extractable compounds may have been overlooked or underestimated in the medium level process of samples DW-15-S-1 and DW-10-S-1.

Low level MS/MSD extractions performed on sample DW-16-SWB, No. 71805, SDG F4072, resulted in elevated duplicate correlation for a number of the spiking compound recoveries (phenol, 1,4-dichlorobenzene, 1,2,4-trichlorobenzene and acenaphthene). Since all the associated surrogate and matrix spike blank (MSB) recoveries were within the required QA limits, the matrix spike variances would not impact the results reported by the laboratory, therefore the useability of data is not affected.

8. Medium level MS/MSD extractions performed on sample DW-11-S-2, No. 71040, SDG F4641 showed recoveries of 4-nitrophenol below QC limit. Therefore, reported result of this

compound in sample DW-11-S-2 should be considered estimated, possibly biased low and flagged with a **g** in the data summary table. Additionally, it is possible that low concentrations of some acid extractable compounds may have been overlooked or underestimated in the medium level process of sample DW-11-S-2.

9. In SDG G2812, medium level MS/MSD on sample 101SS-1, No. 78279 at 10-fold dilution resulted in divergent recoveries of pyrene, significantly below and above the QC limits and a very high RPD indicating sample inhomogeneity or presence of interferences. Acenaphthene recoveries were acceptable, however the resulting RPD was also higher than the QC limit. Reported result of acenaphthene and pyrene in sample 101SS-1 should be considered estimated and flagged with a **g** in the data summary table. It is possible that some low concentrations of semivolatile compounds may have been overlooked in the processing of diluted sample 101SS-1.

In SDG G2812, neither water matrix spike nor a water blank spike were analyzed in association with water sample SSEB-1, No. 78545.

10. Excessive dilutions were applied in analyzing low level soil samples of SDG G2812: sample 101SS-2, No. 78277 at a 5-fold dilution, and sample 101SS-1, No. 78279 at a 10-fold dilution even though there did not appear to be a high concentration of any semivolatile organics in the samples. The data validator stated that the laboratory should have provided reason for such measures in the case narrative. Results from possible lower dilutions were not submitted. Reported results should be considered estimated, possibly biased low and flagged with a **g** in the data summary table. Numerical results should also be flagged with a **d** in the summary table to indicate they were derived from analysis at dilution.

In addition, the presence of 1,1,2,2-tetrachloroethane as reported in the non-target compounds listed for 101SS-2 was negated by the data validator since it is a target compound in the volatile organics and marked on the sample's Form I for SVOCs accordingly.

11. In SDG G7851, sample DW101-10A-S, No. 80566, was used for medium level MS/MSD. Matrix spikes 1,4-dichlorobenzene, N-nitroso-di-n-propylamine, 1,2,4-trichlorobenzene, 4-chloro-3-methylphenol and acenaphthene showed decreased recoveries at or below QC limit and RPD values at or above QC limits. Pyrene MS/MSD presented highly divergent recoveries and elevated RPD.

6. In SDG F4072, analysis of sample DW-10-26-28, No. 70700, was performed at excessive dilution (medium level) where detected compounds were reported at concentrations below the applicable detection limit, all with **j** qualifier. The laboratory did not perform reanalysis of this sample at lower dilution as required by the protocol. The accuracy of the reported results and nondetects for this sample is questionable due to nonconformance with protocol and all the results were flagged with a **g** in the data summary table.

7. Results of field (equipment rinsate) blank, No. 71010, analyzed with SDG F4641 and equipment rinsate SSEB-1, No. 78545 analyzed with SDG G2812, are useable with edits detailed above as reported by the laboratory.

8. In SDG G2812, a water matrix spike and a water blank spike were not analyzed with the sample delivery group.

9. The data validator indicated that in SDG G8771 higher than necessary dilutions were applied in the analysis of samples, LRF-1-101-Frost, No. 81099 and 89DWA-SMHE-60-65, No. 81702, at a 2-fold and 100-fold dilution, respectively. Reported concentrations in these samples indicated that analysis at non-dilution and at 50-fold dilution should have been within the linear concentration range. Concentrations of target compounds from the dilution analysis of samples LRF-1-101-Frost and 89DWA-SMHE-60-65 were flagged with a **d** in the summary table and should be considered estimated, possibly biased slightly low, due to dilution. The qualified results are useful to show the relative levels of these compounds in the affected samples.

In the data summary tables, numerical values were flagged with a **d** when reported from analysis at a dilution.

In every other respect of data validation and review, the TCL VOC results are usable as reported by the laboratory.

Semivolatile Analyses

Analysis of soil and water samples submitted to STL/Envirotech for TCL SVOCs was performed in accordance with NYSDEC ASP Superfund CLP Method 95-2. The QC issues addressed by the data validator and the useability of data are discussed below.

1. In the initial calibration, associated with samples of SDGs G2812 and G7851, respectively, the percent Relative Standard Deviation (RSD) of naphthalene was slightly over the QA limit. Naphthalene was not detected in any of the samples. Nondetects were qualified by the data validator as estimated and were flagged with a g in the data summary table. The following samples were affected:

SDG G2812:

101SS-2, No. 78277,
101SS-1, No. 78279,

SSEB-1, No. 78545.

SDG G7851:

DW101-3-S, No. 80564,

DW101-4-S, No. 80565.

In SDG 7851, initial and/or continuing calibrations showed outlying RSD or % Difference (%D) above QA limits for three compounds. The results for these compounds, numerical data and nondetects, were qualified by the data validator as estimated and were flagged with a g in the data summary table. The following samples were affected:

Fluorene and (1,2,3-cd)pyrene:

DW101-10A-S, No. 80566,
DW101-2-S, No. 80568,
DW101-7-S, No. 80569,
DW101-8-S, No. 80570,
DW101-6-S, No. 80572,
DW101-5-S, No. 80571,

DW101-1-S, No. 80573,
DW101-9-S, No. 80574,
DW101-12-S, No. 80575,
DW101-11-S, No. 80577,
DW101-13-S, No. 80576.

Pyrene:

DW101-5-S, No. 80571,
DW101-1-S, No. 80573,
DW101-9-S, No. 80574,

DW101-12-S, No. 80575,
DW101-11-S, No. 80577,
DW101-13-S, No. 80576.

2. The instrument detection limits (IDLs) initially submitted with SDG G7851 were outdated and noncompliant with protocol requirement. Resubmission of IDLs failed to specify the related instrument as applicable to SVOC analyses of this delivery group.

3. The initial and continuous calibration standards, associated with samples of SDGs G7851 and H3141, respectively were not those in concentrations as required for the NYSDEC ASP protocol. The data validator requested explanation for the discrepancy and the revision of the applicable reporting forms to be submitted. Reported results were not qualified by the data validator.

4. In SDG G2812, bis(2-ethylhexyl)phthalate detections were negated in samples 101SS-1, No. 78279 and 101SS-2, No. 78277 due to its presence in the associated method blank and were edited to nondetect in the data summary table.

SDG H0261:
FSMW-10A, No. 82912,
FSMW-10B, No. 82913,
NC-6, No.: 83324,

FSMW-07A, No.: 83325,
FSMW-05B, No.: 83326.

SDG H1012:
Trip Blank, No. 82707,
FSMW-06B, No. 82706.

2. Low concentration of acetone was detected in the Trip Blank No. 71036 but was not present in the associated blanks or samples of SDG F4071. Low concentration of methylene chloride was detected in the Trip Blank No. 86978 but was not detected in either the associated method blank or in any of the samples of SDG H7281. The reported concentrations for these commonly used laboratory solvents may be the result of laboratory cross-contamination and should be regarded accordingly.

3. Low concentrations of acetone and/or methylene chloride were detected in the method blanks associated with SDGs F4072, F4641, G7851, H0262, H1012, H3141, and H7281, possibly the result of laboratory cross-contamination. According to validation guidelines, these compounds were negated by the data validator whenever they were detected in the samples of these SDGs. These data, edited to nondetect in the data summary tables, are useable to indicate that elevated levels of these compounds were not present in the related samples.

In SDG G2811, the data validator cross-referenced detection of acetone and/or methylene chloride at low concentrations in method blanks, trip blanks and related samples and negated the following data:

Acetone and methylene chloride: Trip Blank, No. 76700 and 101DW-9-SW, No. 78276;
Methylene chloride: Trip Blank, No. 78278.

In SDG G2812, methylene chloride detection was negated in Trip Blank, No. 78546 as well as in all the samples of this delivery group.

In SDG G8771, methylene chloride detection was negated in Trip Blanks No. 81102, 81441, and 81700 as well as in samples LRF-1-Frost, No.: 81099, FSMW-02A, No.: 81437, and FSMW-04A, No.: 81440.

In SDG H0261, methylene chloride and acetone were detected in Trip Blanks No. 82150 and 82607 but not in the associated method blanks analyzed with them. Methylene chloride and acetone were detected in subsequent method blanks associated with the remaining Trip Blanks and samples of this delivery group. The data validator crossreferenced detections and negated the following data:

Acetone: FSMW-10B, No. 82913, and FSMW-05B, No. 83326;
Methylene chloride: FSMW-08B, No. 82147; NC-6, No. 83324, and FSMW-07A, No. 83325;
Acetone and methylene chloride: Trip Blanks 82915, 83323, and 83864; FSMW-10A, No. 82912.

In SDG H3151, the data validator cross-referenced detection of acetone and/or methylene chloride at low concentrations in method blanks, trip blanks and related samples and negated the following data:

Acetone and methylene chloride: Trip Blank, No. 84262; 101DWA-7-80-81, No. 84716, and 101DWA-7-63-64, No. 84717;
Acetone: 101DWA-12-90-91, No. 84259; 101DWA-12-79-80, No. 84260; 101DWA-12-63-64, No. 84261; 101DWA-13-90-91, No. 84718; 101DWA-13-79-80, No. 84719, and 101DWA-13-63-64, No. 84720;
Methylene chloride: 101DWA-7-90-91, No. 84715.

Acetone detection in sample 101DWA-7-90-91, No. 84715 was greater than ten times the concentration in the method blank and the reported concentration is considered a "real" value.

4. In SDG F4072, sample DW-10-S-1, No. 70699 was not analyzed as a result of holding time exceedance due to a laboratory oversight.

5. The recovery of internal standard chlorobenzene-d5 (46%) in sample DW-16-S-1, No. 70696 in SDG F4072, was less than the required 50% quality assurance limit. This sample should have been reanalyzed according to the protocol requirement. The reanalysis was not done due to a laboratory oversight. The completeness of the reported results and nondetects for this sample is questionable due to nonconformance with protocol. The reported concentrations of corresponding target compounds (2-hexanone, 4-methyl-2-pentanone, tetrachloroethene, 1,1,2,2-tetrachloroethane, toluene, chlorobenzene, ethylbenzene, styrene, and total xylenes) in sample DW-16-S-1 should be considered highly estimated and flagged with a g in the data summary table.

DATA USEABILITY REPORT

This useability report covers the analytical results, submitted by Envirotech Research, a division of Severn Trent Laboratories, Inc. (STL Envirotech), for the field sampling investigation, conducted by Lawler, Matusky & Skelly Engineers LLP (LMS) between 9 July 1998 and 29 September 1998 at three Frost Street locations, namely the Former Autoline Automotive Site No. 1-30-043 I, 89 Frost Street Site No. 1-30-043 L and the Former Applied Fluidics Site No. 1-30-043 M under the Work Assignment No. D002676-32. The analytical reports submitted by STL/Envirotech, sample designation groups (SDGs) F4071, F4072, F4073, F4641, G2811, G2812, G2813, G7851, G7852, G8771, H0261, H0262, H1012, H3141, H3142, H3151, and H7281 were validated by Nancy Potak's Data Validation. LMS reviewed the data validator's final report and assessed the analytical data against the project data quality objectives (DQOs) in preparation of this report. The laboratory performed the necessary actions in order to provide the most representative data and where resulting quality control (QC) data did not fall within protocol requirements the reported data were appropriately qualified. Overall, the data submitted by STL/Envirotech met the project DQOs and are usable to characterize the levels of environmental contaminants in samples collected at the Frost Street sites.

During this field investigation a total of eighty nine (89) soil samples and fifty seven (57) groundwater samples were collected. A total of eighty six (86) soil samples and fifty seven (57) groundwater samples were analyzed for contract laboratory program (CLP) target compound list (TCL) volatile organic compounds (VOCs). A total of twenty one (21) of the soil samples were analyzed for CLP TCL semivolatile organic compounds (SVOCs); fifteen (15) soil samples were analyzed for CLP TCL pesticides and polychlorinated biphenyls (Pest/PCBs). Analysis for CLP target analyte list (TAL) metals and cyanide was performed on twenty one (21) soil samples. Trip blanks, field (equipment rinsate) blanks and quality control (QC) samples were also processed.

All the analyses were conducted in accordance with the most recent version of New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP). STL/Envirotech assembled the results by analytical parameters and submitted the correlating reports in such a format where distinct separate SDG numbers were assigned to groups of organic and inorganic results. The project schedule listing the arrangement of samples in the submitted SDGs is attached to this report for reference.

In general the analytical data submitted by STL/Envirotech were compliant with the established protocol requirements. Those instances where the reported data were noncompliant are described in the data validator's report. This report presents a discussion of any impacts that noncompliant data and any other issues raised by the data validator may have on the useability of the reported results.

Volatile Analyses

Soil and water samples submitted to STL/Envirotech were analyzed for TCL VOCs in accordance with NYSDEC ASP Superfund CLP Method 95-1. The affect of QC issues addressed by the data validator and the data usability are discussed below.

1. The percent difference of bromomethane was above the appropriate quality assurance limits in numerous initial and/or continuing calibrations associated with the analyses of samples in SDGs F4071, F4072, F4641, G7851, G8771, H0261 and H1012. This compound was not detected in any of the samples of these delivery groups. It is possible that very low concentrations of bromomethane may have been overlooked. Accordingly, the affected nondetects of bromomethane were qualified by the data validator as estimated, possibly biased low and were flagged with a g in the data summary table. The following samples were affected:

SDG F4071:

All the samples and Trip Blanks.

SDG F4072:

DW-11-28-32, No. 70693.

SDG F4641:

DW-4-30-32, No. 71026,	DW-8-S-1, No. 71034,
DW-5-25-27, No. 71027,	DW-8-22-24, No. 71035,
DW-7-S-1, No. 71031,	Field Blank, No. 71010.
DW-7-25-27, No. 71032,	

SDG G7851:

DW101-10A-S, No. 80566,	DW101-5-S, No. 80571,
101DWA-5-40-44, No. 80567,	DW101-6-S, No. 80572,
DW101-2-S, No. 80568,	DW101-1-S, No. 80573,
DW101-7-S, No. 80569,	DW101-9-S, No. 80574,
DW101-8-S, No. 80570,	101DWA-SMH-E, No. 80580.

SDG G8771:

MW-5-Anson, No. 81098,	FSMW-02C, No. 81439,
MW-1-EZ--EM, No. 81100,	Trip Blank, No. 81102.
FSMW--02B, No. 81438,	

APPENDIX H

DATA VALIDATION AND USABILITY REPORT

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2	Level: Low	
Tune File ID: B8354	Acceptable: yes	Time Requirements Met: yes
Calibration File ID: B8355	Date: 10/07/98	Page: 107
Initial Calibration File ID: B8175	Date: 09/27/98	Page: 88
Associated Samples: VBLKBV280, 86972, 86977		

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes
 All Compounds Average RRF > 0.01: yes
 All Compounds %D < QC Limit: yes

Footnote:
 Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:	Bromomethane	Toluene
PPB		
50	745923/1158098 * 1.000 = 0.644	4589774/3104340 * 1.000 = 1.479
	%D: (0.727 - 0.644) / 0.727 * 100 = 11.416781	%D: (1.522 - 1.478) / 1.522 * 100 = 2.8909

METHOD BLANK: VBLKBV280 (Page 131)

Compound	ppb	<CRDL
Acetone	6J	10

OVERALL ASSESSMENT AND COMMENTS: ok

VOLATILE ORGANICS CONTINUING CALIBRATION SUMMARY

Instrument ID: XVOAMS2

Level: Low

Tune File ID: B8394

Acceptable: yes

Time Requirements Met: yes

Calibration File ID: B8395

Date: 10/09/98

Page: 115

Initial Calibration File ID: B8175

Date: 09/27/98

Page: 88

Associated Samples: VBLKBV282, 8291BS

TCL COMPOUND LIST

	%D	RRF		%D	RRF
Chloromethane	<100	>0.010	1,2-Dichloropropane	<100	>0.010
Bromomethane *	<25.0	>0.100	cis-1,3-Dichloropropene *	<25.0	>0.200
Vinyl Chloride *	<25.0	>0.100	Trichloroethene *	<25.0	>0.300
Chloroethane	<100	>0.010	Dibromochloromethane *	<25.0	>0.100
Methylene Chloride	<100	>0.010	1,1,2-Trichloroethane *	<25.0	>0.100
Acetone	<100	>0.010	Benzene *	<25.0	>0.500
Carbon Disulfide	<100	>0.010	trans-1,3-Dichloropropene *	<25.0	>0.100
1,1-Dichloroethene *	<25.0	>0.100	Bromoform *	<25.0	>0.100
1,1-Dichloroethane *	<25.0	>0.200	4-Methyl-2-Pentanone	<100	>0.010
1,2-Dichloroethene (total)	<100	>0.010	2-Hexanone	<100	>0.010
Chloroform *	<25.0	>0.200	Tetrachloroethene *	<25.0	>0.200
1,2-Dichloroethane *	<25.0	>0.100	1,1,2,2-Tetrachloroethane *	<25.0	>0.500
2-Butanone	<100	>0.010	Toluene *	<25.0	>0.400
1,1,1-Trichloroethane *	<25.0	>0.100	Chlorobenzene *	<25.0	>0.500
Carbon Tetrachloride *	<25.0	>0.100	Ethylbenzene *	<25.0	>0.100
Bromodichloromethane *	<25.0	>0.200	Styrene *	<25.0	>0.300
			Xylenes (total)	<25.0	>0.300
Surrogates:					
Toluene-d8	<100	>0.01			
Bromofluorobenzene *	<25.0	>0.20			
1,2-Dichloroethane-d4	<100	>0.01			

All Compounds Average RRF > QC Limit: yes

All Compounds Average RRF > 0.01: yes

All Compounds %D < QC Limit: yes

Footnote:

Footnote:

CALCULATION VERIFICATION: (RRF = Ais/Ax*Cis/Cs)

COMPOUND:

Carbon Tetrachloride

1,1,2,2-Tetrachloroethane

PPB

50

2066658/4186416 * 1.000 = 0.494

2907672/3188688 * 1.000 = 0.912

%D: (0.554 - 0.494) / 0.554 * 100 = 10.8303

%D: (1.017 - 0.912) / 1.017 * 100 = 10.324484

METHOD BLANK: VBLKBV282 (Page 143)

Compound

ppb

<CRDL

No compounds were detected in this method blank

OVERALL ASSESSMENT AND COMMENTS: ok