HydroGeoSpectrum SOIL \ POR CHAIN OF CUSTODY

PROJECT Rocketdyne CLIENT Ogden DATE 7/31/00

SAMPLE ID-Depth(ft) I.D. SV13S01	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SUMO	UCS #
VSV13S01	4'	RV 792	7/26/00	1434-1445	N17	150	11		✓	5.2	18a
VSV15S01	4.5'	RV 793	↓	1455-1507	A20	150	12		✓	↓	41
SLSV20S01	1'	RV 794	7/26/00	1519-1529	T4	150	10		✓	6.5	56
SLSV19S01	4'	RV 795	↓	1537-1548	E6	150	11		✓	↓	55

GATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Thomas J. Gates RECEIVED BY DATE/TIME

RELINQUISHED BY RECEIVED BY DATE/TIME

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

M4-154

PROJECT Rocketdyne CLIENT Ogden DATE 8/4/00

SAMPLE ID-Depth(ft)		EEA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMU	VLS #
14 CLSV47S02	10'	RV832	8/3/00	1504 - 1518 ~~1409 - 1423~~	A13	150	14	100 ml	✓	4.7	99
15 CLSV47S01	5'	RV833	8/3/00	1506 - 1518 ~~1409 - 1421~~	J2	150	12	100 ml	✓	4.7	99

SURROGATES D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Thomas J Stone RECEIVED BY _____ DATE/TIME 8/4/00 1545

RELINQUISHED BY _____ RECEIVED BY _____ DATE/TIME _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY M4-153

PROJECT Rocketdyne CLIENT Ogden DATE 8/3/00

SAMPLE ID-Depth(ft) Ogden	Depth	EPA	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMU	MISC VLS
CLSV39 SØ1	6'	RV817	7/28/00	8/3/00 1544-1556	J2	150	12	100ml	✓	4.7	85
CLSV38 SØ2	11'	RV818	7/28/00	~~1604-1618~~ 1624-1638 TB	A13	"	14	"	✓	4.7	84
~~CLSV38 SØ3~~	~~21'~~	~~RV819~~	~~7/28/00~~	~~1619-1636~~	~~A5~~	"	17	"	✓	4.7	84 ~~TB~~
			↖ Flow not sustained in RV819								

ROGATES D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Thomas J. Gale RECEIVED BY D. A. Hambrick DATE/TIME 8/3/00 ~~1620~~ 1645

RELINQUISHED BY D. A. Hambrick RECEIVED BY [signature] DATE/TIME 8/3/00 1655

HydroGeoSpectrum SOIL V POR CHAIN OF CUSTODY

PROJECT Rocketdyne CLIENT Ogden DATE 7/31/00

SAMPLE ID-Depth(ft)	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMO	UCS #
EVSV13S01	4'	RV 792	7/26/00	1434-1445	N17	150	11	100 ml	✓	5.2	18a
EVSV15S01	4.5'	RV 793	↓	1455-1507	A20	150	12	↓	✓	↓	41
SLSV20S01	1'	RV 794	7/26/00	1519-1529	T4	150	10	↓	✓	6.5	56
SLSV19S01	4'	RV 795	↓	1537-1548	E6	150	11	↓	✓	↓	55
								1 Purge Vol			

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Thomas J. Stone RECEIVED BY ____ DATE/TIME ____

RELINQUISHED BY ____ RECEIVED BY ____ DATE/TIME ____

HydroGeoSpectrum SOIL / POR CHAIN OF CUSTODY

PROJECT Rocketdyne CLIENT Ogden DATE 7/31/00

SAMPLE ID-Depth(ft)	Depth	EPA ID	INSTALLED (Date or Time)	SAMPLED (Times)	BULB ID	FLOW ml/min	TIME min	Purge Vol	Bubble Leak Check	MISC SWMU	ULS #
EVSV10S01	4'	RV789	7/19/00	1304-1315	A5	150	11	100 ml		5.2	42
EVSV11S01	6'	RV790	↓	1321-1339	B13	100	18	↓		↓	15
EVSV11S02	13'	RV791	↓	1343-1355	B5	150	12	↓		↓	15
								I.B. 4/26/01			

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Thomas J Ek RECEIVED BY_____ DATE/TIME_____

RELINQUISHED BY_____ RECEIVED BY_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MY-150

PROJECT Rocketdyne CLIENT Ogden DATE 7/31/00

SAMPLE ID-Depth(ft)	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SUMMA	ULS
✓ LXSVØ5 SØ1	5'	RV 787	7/26/00	1121-1132	X2	150	11		✓	4.5	2a
✓ LXSVØ5 SØ2	11'	RV 788	7/26/00	1143-1157	S1	150	14		✓	4.5	2a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Thomas J [illegible] RECEIVED BY [illegible signature] DATE/TIME 1215p 7/31/00

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-15D

PROJECT Rocketdyne CLIENT Ogden DATE 7/31/00

	SAMPLE ID-Depth(ft)	Depth	ERAD	INSTALLED (Date or Time)	SAMPLED (Times)	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMU	MISC ULS #
3	EVSV10S01	4'	RV789	7/19/00	1304-1315	A5	150	11			5.2	42
4	EVSV11S01	6'	RV790	↓	1321-1339	B13	100	18			↓	15
5	EVSV11S02	13'	RV791	↓	1343-1355	B5	150	12			↓	15

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Thomas J Bt RECEIVED BY [signature] DATE/TIME ~~1400~~ 2:15 pm 7/31/00

RELINQUISHED BY_____ RECEIVED BY_____ DATE/TIME_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-15D

PROJECT Rocketdyne CLIENT Ogden DATE 7/31/00

SAMPLE ID-Depth(ft)	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	MISC Isobutane Leak Check	MISC SUMO	MISC UCS #
EVSV13S01	4'	RV 792	7/26/00	1434-1445	N17	150	11		✓	5.2	18a
EVSV15S01	4.5'	RV 793	↓	1455-1507	A20	150	12		✓	↓	41
SLSV20S01	1'	RV 794	7/26/00	1519-1529	T4	150	10		✓	6.5	56
SLSV19S01	4'	RV 795	↓	1537-1548	E6	150	11		✓	↓	55

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Thomas J. Stone RECEIVED BY [signature] DATE/TIME 400 pm 7/31/00

RELINQUISHED BY_____ RECEIVED BY_____ DATE/TIME_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

U4-157

PROJECT Rocketdyne CLIENT Ogden DATE 8/1/00

SAMPLE ID-Depth(ft) Ogden ID	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMU	ULS #
SLSV19SØ2	8'	RV796	7/26/00	0804-0817	N1	150	13	100 ml	✓	6.5	55
L2SVØ1SØ1	7'	RV797	7/26/00	0830-0842	N7	150	12	"	✓	AIV AOC	2
L2SVØ2SØ1	7'	RV798	" " "	0844-0856	X1	150	12	"	✓	AIV AOC	3
MCSVØ1SØ1	5'	RV799	" " "	0900-0912	B11	150	12	"	✓	AIV AOC	4

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 8/1/00 0930

RELINQUISHED BY________ RECEIVED BY________ DATE/TIME________

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-15'1

PROJECT Rocketdyne CLIENT Ogden DATE 8/1/00

SAMPLE ID-Depth(ft)	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMU	ULS #
CLSV41S01	1'	RV800	7/31/00	1043-1053	X4	150	10	100ml	✓	4.7	86
CLSV42S02	11'	RV801	7/31/00	1048-1102	A17	150	14	"	✓	"	93
CLSV42S01	6'	RV802	7/31/00	1058-1110	S1	150	12	"	✓	"	93

SURROGATES: D6-Benzene_____ D8-Toluene_____ D-Chloroform_____ D6-DMK_____ D-DCM_____

RELINQUISHED BY: Thomas J. Peter RECEIVED BY _____ DATE/TIME 8/1/00 1200

RELINQUISHED BY _____ RECEIVED BY _____ DATE/TIME _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MY-153

PROJECT Rocketdyne CLIENT Ogden DATE 8/2/00

SAMPLE ID-Depth(ft) Ogden ID	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMU	MISC ULS #
B1SV05S02	10'	RV803	7/27	0549-0602	B13	150	13	100ml	✓	4.1	10
B1SV05S01	5'	RV804	7/27	0603-0615	B5	↓	12	↓	✓	↓	10
B1SV04S01	6'	RV805	7/27	0618-0630	A20	↓	12	↓	✓	↓	12
B1SV03S01	4'	RV806	7/28	0642-0654	A5	↓	12	↓	✓	7.5	58
HSSV01S02	11.5'	RV807	7/27	0658-0712	Y8	↓	14	↓	✓	ATV AOC	3
CLSV40S01	~~12.5~~	RV808	7/31	0840-0851	E6	↓	11	↓	✓	4.7	80
CLSV43S01	4'	RV809	8/1	0856-0908	A13	↓	12	↓	✓	↓	87
CLSV45S01	6.5'	RV810	8/1	0918-0930	X2	↓	12	↓	✓	↓	94

ROGATES D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Thomas J. Peter RECEIVED BY [signature] DATE/TIME 8/2/00 1020

RELINQUISHED BY ____ RECEIVED BY ____ DATE/TIME ____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-15B

PROJECT Rocketdyne CLIENT Ogden DATE 8/2/00

SAMPLE ID-Depth(ft) Ogden ID	EPA ID	Depth	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC SWMU	MISC UZS ft
BASV13 Q02	RV811	10'	7/18/00	0943-1028	E9	150	45	100ml	✓	4.15	72
BASV13 D02	RV812	10'	7/18/00	1030-1044	A18	150	14	↓	✓	4.15	72
CLSV37 S01	RV813	3'	7/28/00	1148-1159	X8	150	11	100ml	✓	4.7	82
CLSV36	RV814	1'	7/28/00	1205-1216	T4	150	11	100ml	✓	4.7	81

ROGATES. D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Thomas J. Peter RECEIVED BY _____ DATE/TIME 8/2/00 1300

RELINQUISHED BY _____ RECEIVED BY _____ DATE/TIME _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

M4-152

PROJECT Rocketdyne CLIENT Ogden DATE 8/2/00

SAMPLE ID-Depth(ft)	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutane Leak Check	MISC 5 vol	% O2
CLSV44S01	2'	RV815	8/1/00	1343-1354	X17	150	11	100ml	✓	4.7	95
CLSV37D01	3'	RV816	7/28/00	1430-1441	J2	150	11	100ml	✓	4.7	82

SURROGATES D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Thomas J Bo RECEIVED BY [signature] DATE/TIME 8/2/00 1525

RELINQUISHED BY ____ RECEIVED BY ____ DATE/TIME ____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MY-204

PROJECT Rocket Dyne CLIENT AMEC DATE 12/20/00

SAMPLE ID	Depth (ft)	EM ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SWMU #	JLS #
125V07501	5'	RV983	12/14/00	1650–1602	X8	150	12	100ml	✓	AIAOC	73
125V07502	10'	—	12/14/00	—	—	∅	—	—	—	—	73
125V07503	14.5'	RV984	12/14/00	1650–1605	B11	150	15	100ml	✓	AIAOC	73
J.B. 5/14/01											J.B. 5/14/01

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12/20/00 530p

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL V POR CHAIN OF CUSTODY MY- 9

PROJECT ROCKETDYNE CLIENT OGDEN / AMEC DATE 12/13/00

SAMPLE ID-Depth(ft) OGDEN ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	BUTANOL ALCOHOL Leak Check	MISC SWMU#	ULS#
CLSV49/S03	15'	RV901	1 12/01/00	8:32 - 847	S22	150	15	100ml	✓	AREA I AOC	102
CLSV49/S02	10	RV902	2	8:32 - 846	H1		14		✓		102
CLSV49/S01	5'	RV903	3	832 - 844	X8		12		✓		102
CLSV49/D01	5'	RV904	4	8:32 - 844	X22		12		✓		102
CLSV49/S05	25	RV905	5	933 - 951	X19		18		✓		102
CLSV49/S04	20	RV906	6	933 - 949	X7		16		✓		102
CLSV49/F01	NA	RV907	7	933 - 951	W1		18		N/A		102

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. [signature] RECEIVED BY James M. Reed DATE/TIME 12/13/00 1003

RELINQUISHED BY ____________ RECEIVED BY ____________ DATE/TIME ____________

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-199

PROJECT ROCKETDYNE CLIENT OGDEN / AMEC DATE 12/13/00

SAMPLE ID-Depth(ft) OGDON ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SW846	VLS #
LFSV145Ø1	5'	RV 908	8 11/30/00	1349 - 1401	X8	150	12	100	✓	4.12	69
LFSV145Ø2	10'	RV 909	9	1349 - 1403	S22		14		✓	4.12	69
LFSV145Ø3	15'	RV 910	10	1349 - 1404	H1		15		✓	4.12	69
LFSV185Ø1	5'	RV 911	11	1407 - 1419	X22		12		✓	4.12	55

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lacy RECEIVED BY Lance M. Reed DATE/TIME 12/13/00 225p

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-199

PROJECT ROCKETDYNE CLIENT OGDEN / AMEC DATE 12/13/00

SAMPLE ID-Depth(ft) OGDEN ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	~~Bottle~~ ALCOHOL Leak Check	MISC SWMU#	ULS#
CLSV49/S03	15'	RV901	1 12/01/00	8:32 - 847	S22	150	15	100ml	✓	AREA I ACC	102
CLSV49/S02	10	RV902	2	8:32 - 846	H1	↓	14	↓	✓	↓	102
CLSV49/S01	5'	RV903	3	832 - 844	X8		12		✓		102
CLSV49/D01	5'	RV904	4	8:32 - 844	X22		12		✓		102
CLSV49/S05	25	RV905	5	933 - 951	X19		18		✓		102
CLSV49/S04	20	RV906	6	933 - 949	X7		16		✓		102
CLSV49/F01	NA	RV907	7 ↓	933 - 951	W1	↓	18	↓	N/A	↓	102

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Flury **RECEIVED BY** James M. Reed **DATE/TIME** 12/13/00 1000

RELINQUISHED BY_____ **RECEIVED BY**_____ **DATE/TIME**_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-199

PROJECT ROCKETDYNE CLIENT OGDEN / AMEC DATE 12/13/00

SAMPLE ID-Depth(ft) OGDEN ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU#	ULS #
LFSV145Ø1	5'	RV 908	8 11/30/00	1349 - 1401	X8	150	12	100	✓	4.12	69
LFSV145Ø2	10'	RV 909	9 ↓	1349 - 1403	S22	↓	14	↓	✓	4.12	69
LFSV145Ø3	15'	RV 910	10 ↓	1349 - 1404	H1	↓	15	↓	✓	4.12	69
LFSV185Ø1	5'	RV 911	11 ↓	1407 - 1419	X22	↓	12	↓	✓	4.12	55

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lacy **RECEIVED BY** James M. Reed **DATE/TIME** 12/13/00 225p

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-199

PROJECT ROCKETDYNE CLIENT OGDEN / AMEC DATE 12/13/00

SAMPLE ID-Depth(ft) OGDEN ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU#	ULS#
CLSV49/S03	15'	RV901	12/01/00	8:32 - 847	S22	150	15	100ml	✓	AREA I ACC	102
CLSV49/S02	10	RV902	2	8:32 - 846	H1	"	14	"	✓	"	102
CLSV49/S01	5'	RV903	3	832 - 844	X8	"	12	"	✓	"	102
CLSV49/D01	5'	RV904	4	8:32 - 844	X22	"	12	"	✓	"	102
CLSV49/S05	25	RV905	5	933 - 951	X19	"	18	"	✓	"	102
CLSV49/S04	20	RV906	6	933 - 949	X7	"	16	"	✓	"	102
CLSV49/F01	NA	RV907	7	933 - 951	W1	"	18	"	N/A	"	102

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Terry **RECEIVED BY** James M. Reed **DATE/TIME** 12/13/00 1000

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MY-199

PROJECT ROCKETDYNE CLIENT OGDEN / AMEC DATE 12/13/00

SAMPLE ID-Depth(ft) OGDEN ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	[illegible] Leak Check	MISC SITE/AREA	ULS#
CLSV49/S03	15'	RV901	1 12/01/00	8:32 - 847	522	150	15	100ml	✓	AREA I AOC	102
CLSV49/S02	10	RV902	2 ↓	8:32 - 846	H1	↓	14	↓	✓	↓	102
CLSV49/S01	5'	RV903	3	832 - 844	X8		12		✓		102
CLSV49/D01	5'	RV904	4	8:32 - 844	X22		12		✓		102
CLSV49/S05	25	RV905	5	933 - 951	X19		18		✓		102
CLSV49/S04	20	RV906	6	933 - 949	X7		16		✓		102
CLSV49/F01	NA	RV907	7	933 - 951	W1		18		N/A		102

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. [signature] RECEIVED BY James M. [signature] DATE/TIME 12/13/00 1002

RELINQUISHED BY ________ RECEIVED BY ________ DATE/TIME ________

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MY-199

PROJECT ROCKETDYNE CLIENT OGDEN / AHEC DATE 12/13/00

SAMPLE ID-Depth(ft) OGDEN ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	15 [illegible] Leak Check	MISC Syringe #	[illegible] #
LFSVI4S01	5'	RV 908	8 11/30/00	1349 - 1401	X8	150	12	100	✓	4.12	69
LFSVI4S02	10'	RV 909	9 ↓	1349 - 1403	S22	↓	14	↓	✓	4.12	69
LFSVI4S03	15'	RV 910	10 ↓	1349 - 1404	H1	↓	15	↓	✓	4.12	69
LFSVI8S01	5'	RV 911	11 ↓	1407 - 1419	X22	↓	12	↓	✓	4.12	55

Post-it® Fax Note 7671

Date 12/13/00	# of pages ▶ 2
To JOSE	From BARB LAEY
Co./Dept.	Co. ROCKETDYNE
Phone #	Phone #
Fax # 858-458-0943	Fax #

___ D8-Toluene ___ D-Chloroform ___ D6-DMK ___ D-DCM ___

RELINQUISHED BY: Barbara E. Laey RECEIVED BY [signature] DATE/TIME 12/13/00 225p

RELINQUISHED BY ___ RECEIVED BY ___ DATE/TIME ___

HydroGeoSpectrum SOIL V[illegible]OR CHAIN OF CUSTODY

MW 00

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU #	GLS #
CLSV57/SG1	3'	RV 912 1	12/04/00	856 - 907	N17	150	11	100 ml	✓	4.7	104
CLSV57/SG2	7'	RV 913 2	12/04/00	856 - 908	X8	↓	12	↓	✓	↓	104
CLSV57/SG3	7'	RV 914 3	12/04/00	856 - 908	B11	↓	12	↓	✓	↓	104
CLSV55/SG1	15'	RV 915 4	12/04/00	909 - 919	E8	↓	10	↓	✓	↓	106
CLSV59/SG1	5	RV 916 5	↓	924 - 936	Y6	↓	12	↓	✓	↓	107
CLSV59/SG3	15	RV 917 6	↓	924 - 939	N2	↓	15	↓	✓	↓	107
CLSV59/SG2	10	RV 918 7	↓	924 - 938	X19	↓	14	↓	✓	↓	107
CLSV56/SG1	3'	RV 919 8	↓	938 - 949	X6	↓	11	↓	✓	1.8, 4/17/01	103a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang RECEIVED BY Ramon M. Reed DATE/TIME 12/14/00 1000

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL V[illegible]OR CHAIN OF CUSTODY MY-2

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SUMA #	
CLSV61 S01	5	RV920	9 12/04/00	1127 - 1138	R8	150	11	100	✓	4.7	91
CLSV54 S01	5'	RV921	10	1152 - 1203	H3		11		✓		83
CLSV54 S02	11'	RV922	11	1152 - 1206	R6		14		✓		83
CLSV55 S01	5'	RV923	12 ↓	1155 - 1209	B13	100	14	↓	✓		106
CLSV53 S01	1.5'	RV924	13	1206 - 1216	H1	150	10		✓		103
CLSV52 S01	4.5	RV925	14	1212 - 1225	X22	↓	11		✓		104
CLSV38 S01	6'	RV926	15 REINSTALL 12/01/00	1227 - 1238	X7	↓	11	↓	✓		84
CLSV39 S03	16'	RV927	16 " "	1231 - 1246	S22		15	↓	✓	↓	85
CLSV51 S01	1.5'	RV928	17 12/01/00	1241 - 1251	A16	↓	10		✓		110
CLSV49 S02	8	RV929	18 11/30/00	1256 - 1309	A5		13		✓		100
CLSV48 S01	3	RV930	19 ↓	1256 - 1306	W1	↓	10	↓	✓	↓	100

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang RECEIVED BY James M. Reed DATE/TIME 12/14/00 115p

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MK-200

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SUMMA #	ULS #
CLSV57/S01	3'	RV 9121	12/04/00	856 – 907	N17	150	11	100 ml	✓		104
CLSV57/S02	7'	RV 9132	12/04/00	856 – 908	X18	↓	12	↓	✓		104
CLSV57/D02	7'	RV 9143	12/04/00	856 – 908	B11	↓	12	↓	✓		104
CLSV55/S01	1.5'	RV 9154	12/04/00	909 – 919	E8	↓	10	↓	✓		106
CLSV59/S01	5	RV 9165	↓	924 – 936	Y6	↓	12	↓	✓		107
CLSV59/S03	15	RV 9174	↓	924 – 939	N2	↓	15	↓	✓		107
CLSV59/S02	10	RV 9187	↓	924 – 938	X19	↓	14	↓	✓		107
CLSV56/S04	3'	RV 9198	↓	938 – 949	X6	↓	11	↓	✓		103a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang **RECEIVED BY** [signature] **DATE/TIME** 12/14/00 1000

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-200

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	MISC Leak Check	SWMU #	
CLSV61 S@1	5	RV920	9 12/04/00	1127 - 1138	R8	150	11	100	✓	47	91
CLSV54 S@1	5'	RV921	10	1152 - 1203	H3	"	11	"	✓	"	83
CLSV54 S@2	11'	RV922	11	1152 - 1206	R6	"	14	"	✓	"	83
CLSV55 S@1	5'	RV923	12 ↓	1155 - 1209	B13	100	14	↓	✓	"	106
CLSV53 S@1	1.5'	RV924	13	1206 - 1216	H1	150	10	"	✓	"	103
CLSV52 S@1	4.5	RV925	14	1212 - 1223	X22	↓	11	"	✓	"	104
CLSV38 S@1	6'	RV926	15 REINSTALL 12/01/00	1227 - 1238	X7	↓	11	↓	✓	"	84
CLSV39 S@3	16'	RV927	16 " "	1231 - 1246	S22	"	15	↓	✓	↓	85
CLSV51 S@1	1.5'	RV928	17 12/01/00	1241 - 1251	A16	↓	10	"	✓	"	110
CLSV48 S@2	8	RV929	18 11/30/00	1256 - 1309	A5	"	13	"	✓	"	100
CLSV48 S@1	3	RV930	19 ↓	1256 - 1306	W1	↓	10	↓	✓	↓	100

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lacy **RECEIVED BY** James M. Reed **DATE/TIME** 12/14/00 115p

RELINQUISHED BY_____ **RECEIVED BY**_____ **DATE/TIME**_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MK-200

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU #	ULS #
CLSV57/S01	3'	RV 9121	12/04/00	856 - 907	N17	150	11	100 ml	✓		104
CLSV57/S02	7'	RV 9132	12/04/00	856 - 908	X18	"	12	"	✓		104
CLSV57/D02	7'	RV 9143	12/04/00	856 - 908	B11	"	12	"	✓		104
CLSV55/S01	1.5'	RV 9154	12/04/00	909 - 919	E8	"	10	"	✓		106
CLSV59/S01	5	RV 9165	"	924 - 936	Y6	"	12	"	✓		107
CLSV59/S03	15	RV 9174	"	924 - 939	N2	"	15	"	✓		107
CLSV59/S02	10	RV 9187	"	924 - 938	X19	"	14	"	✓		107
CLSV56/S01	3'	RV 9198	"	938 - 949	X6	"	11	"	✓		103a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang **RECEIVED BY** Ramon M. Reed **DATE/TIME** 12/14/00 1000

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-200

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	MISC Leak Check	MISC SVMW #	
CLSV61 S@1	5	RV920	9 12/04/00	1127 - 1138	R8	150	11	100	✓	4.7	91
CLSV54 S@1	5'	RV921	10	1152 - 1203	H3		11		✓		83
CLSV54 S@2	11'	RV922	11	1152 - 1206	R6		14		✓		83
CLSV55 S@1	5'	RV923	12 ↓	1155 - 1209	B13	100	14	↓	✓		106
CLSV53 S@1	1.5'	RV924	13	1206 - 1216	H1	150	10		✓		103
CLSV52 S@1	4.5	RV925	14	1212 - 1223	X22	↓	11		✓		104
CLSV38 S@1	6'	RV926	15 REINSTALL 12/01/00	1227 - 1238	X7	↓	11	↓	✓		84
CLSV39 S@3	16'	RV927	16 " "	1231 - 1246	S22		15	↓	✓	↓	85
CLSV51 S@1	1.5'	RV928	17 12/01/00	1241 - 1251	A16	↓	10		✓		110
CLSV48 S@2	8	RV929	18 11/30/00	1256 - 1309	A5		13		✓		100
CLSV48 S@1	3	RV930	19 ↓	1256 - 1306	W1	↓	10	↓	✓	↓	100

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lacy **RECEIVED BY** James M. Reed **DATE/TIME** 12/14/00 115p

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MK-200

PROJECT ROCKETDYNE CLIENT: AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isobutylene Alcohol Leak Check	MISC SUMMA #	Lab #
CLSV57/5'	3'	RV 9121	12/04/00	856 - 907	N17	150	11	100 ml	✓		104
CLSV57/5'2	7'	RV 9132	12/04/00	856 - 908	X18		12		✓		104
CLSV57/5'3	7'	RV 9143	12/04/00	856 - 908	B11		12		✓		104
CLSV55/5'4	1.5'	RV 9154	12/04/00	909 - 919	E8		10		✓		106
CLSV59/5'1	5	RV 9165		924 - 936	Y6		12		✓		107
CLSV59/5'3	15	RV 9174		924 - 939	N2		15		✓		107
CLSV59/5'2	10	RV 9181		924 - 938	X19		14		✓		107
CLSV56/5'4	3'	RV 9198		938 - 949	X6		11		✓		103a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang RECEIVED BY Lorena M. Real DATE/TIME 12/14/00 1000

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-200

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/14/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SUMMA #	
CLSV61 SG1	5	RV920	9 12/04/00	1127 - 1138	R8	150	11	100	✓	47	91
CLSV54 SG1	5'	RV921	10	1152 - 1203	H3		11		✓		83
CLSV54 SG2	11'	RV922	11	1152 - 1206	R6		14		✓		83
CLSV55 SG1	5'	RV923	12	1155 - 1209	B13	100	14		✓		106
CLSV53 SG1	15'	RV924	13	1206 - 1216	H1	150	10		✓		103
CLSV52 SG1	4.5	RV925	14	1212 - 1223	X22		11		✓		104
CLSV38 SG1	6'	RV926	15 REINSTALL 12/01/00	1227 - 1238	X7		11		✓		84
CLSV39 SG3	16'	RV927	16 " "	1231 - 1246	S22		15		✓		85
CLSV51 SG1	15'	RV928	17 12/01/00	1241 - 1251	A16		10		✓		110
CLSV48 SG2	8	RV929	18 11/30/00	1256 - 1309	A5		13		✓		100
CLSV48 SG1	3	RV930	19	1256 - 1306	W1		10		✓		100

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang RECEIVED BY James M. Reed DATE/TIME 12/14/00 115p

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum Inc. POB 49259, LA. CA 90049 Phone(310)458-0973

HydroGeoSpectrum SOIL V[illegible]OR CHAIN OF CUSTODY M4-2

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/15/00

SAMPLE ID-Depth(ft) AMEC ID	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU#	WLS #
LFSV16/S02	10	RV938	8 11/30/00	1039 - 10:52	N2	150	13	100ml	✓	4.12	52
LFSV16/S03	15	RV939	9	1039 - 10:54	W1		15		✓		52
LFSV16/S04	20	RV940	10	1039 - 10:56	R8		17		✓		52
LFSV16/S01	5	RV941	11	1057 - 1109	A5		12		✓		52
LFSV15/S02	8	RV942	12	1102 - 1115	X19		13		✓		53
LFSV15/S03	13	RV943	13	1102 - 1117	X6		15		✓		53
LFSV15/S01	3	RV944	14	1113 - 1125	A16		12		✓		53
LFSV06/S03	15'	RV945	5 12/11/00 REINSTALL	1132 - 1147	522	150	15		✓		56
LFSV06/S01	5'	RV946	6	1132 - 1147	X7	100	15		✓		56

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Fary RECEIVED BY [signature] DATE/TIME 12/15/00 1200

RELINQUISHED BY ____________ RECEIVED BY ____________ DATE/TIME ____________

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY 14-201

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/15/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU#	ULS #
LFSV16/SG2	10	RV938	8 11/30/00	1039 - 10:52	N2	150	13	100ml	✓	4.12	52
LFSV16/SG3	15	RV939	9	1039 - 10:54	W1		15		✓		52
LFSV16/SG4	20	RV940	10	1039 - 10:56	R8		17		✓		52
LFSV16/SG1	5	RV941	11	1057 - 11:09	A5		12		✓		52
LFSV15/SG2	8'	RV942	12	1102 - 11:15	X19		13		✓		53
LFSV15/SG3	13'	RV943	13	1102 - 1117	X6		15		✓		53
LFSV15/SG1	3'	RV944	14	1113 - 11:25	A16	↓	12		✓		53
LFSV06/SG3	15'	RV945	15 12/11/00 REINSTALL	1132 - 1147	S22	150	15		✓		56
LFSV06/SG1	5'	RV946	16 ↓	1132 - 1147	X7	100	15	↓	✓	↓	56

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Fay RECEIVED BY James M. Reed DATE/TIME 12/15/00 1200

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

CENTRU

HydroGeoSpectrum SOIL V[illegible]OR CHAIN OF CUST

PROJECT ROCKETDYNE CLIENT AMEC

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EDA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol
CLSV42 SB1	6'	RV9457	SUMMER 2000	1253 - 13:05	R6	150	12	100
ILSV53 SB1	5'	RV9468	↓	1320 - 1332	H1	↓	12	↓
EVSV13SB1	5'	RV9479	↓	1355 - 1407	X8	↓	12	↓

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____ _____

RELINQUISHED BY: Barbara E. Fong RECEIVED BY _____ DATE/T

RELINQUISHED BY _____ RECEIVED BY _____ DATE/T

CENTRUM

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-201

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/15/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU #	ULS #
CLSV42S01	6'	RV9417	SUMMER 2000	1253 - 13:05	R6	150	12	100ml	✓	4.7	93
ILSV53 S01	5'	RV9418	↓	1320 - 1332	H1	↓	12	↓	✓	4.4,4.5	65
EVSV13S01	5'	RV9419	↓	1355 - 1407	X6	↓	12	↓	✓	5.2	18a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lory RECEIVED BY [signature] DATE/TIME 12/15/00 2050

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY M4-201

PROJECT ROCKETDYNE CLIENT AMEC (OGDEN) DATE 12/15/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU #	ULS #
CLSV48F01	0	RV931	1 ——	734 - 750	X8	150	16	100ml	✓	AOC 7 (4.7)	100
CLSV48S03	13	RV932	2 11/30/00	734 - 749	N17		15		✓		100
CLSV48D03	13	RV933	3 11/30/00	734 - 749	H6		15		✓		100
CLSV48S04	18	RV934	4 11/30/00	734 - 750	X18		16		✓		100
CLSV50S01	5	RV935	5 12/01/00	800 - 812	E8		12		✓		101
CLSV50S02	10	RV936	6	800 - 814	Y6		14		✓		101
CLSV50S03	16	RV937	7 ↓	800 - 815	B11	↓	15	↓	✓	↓	101

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Terry **RECEIVED BY** James M. Reed **DATE/TIME** 12/15/00 920 AM

RELINQUISHED BY_____ **RECEIVED BY**_____ **DATE/TIME**_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY 1114-201

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/15/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU#	ULS #
LFSV16/S02	10	RV938	8 11/30/00	1039 - 10:52	N2	150	13	100ml	✓	4.12	52
LFSV16/S03	15	RV939	9	1039 - 10:54	W1		15		✓		52
LFSV16/S04	20	RV940	10	1039 - 10:56	R8		17		✓		52
LFSV16/S01	5	RV941	11	1057 - 11 09	A5		12		✓		52
LFSV15/S02	8'	RV942	12	1102 - 11 15	X19		13		✓		53
LFSV15/S03	13'	RV943	13	1102 - 1117	X6		15		✓		53
LFSV15/S01	3'	RV944	14	1113 - 11 25	A16	↓	12		✓		53
LFSV06/S03	15'	RV945	15 12/11/00 REINSTALL	1132 - 11 47	S22	150	15		✓		56
LFSV06/S01	5'	RV946	16 ↓	1132 - 11 47	X7	100	15	↓	✓	↓	56

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lacy **RECEIVED BY** Lamont M. Reed **DATE/TIME** 12/15/00 1200

RELINQUISHED BY_____ **RECEIVED BY**_____ **DATE/TIME**_____

CENTRUM

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-201

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/15/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU #	ULS #
CLSV42 S01	6'	RV 9477	SUMMER 2000	1253 - 13:05	R6	150	12	100ml	✓	4.7	93
ILSV53 S01	5'	RV 9488	↓	1320 - 1332	H1	↓	12	↓	✓	4.4,4.5	65
EVSV13 S01	5'	RV 9499	↓	1355 - 1407	X8	↓	12	↓	✓	5.2	18a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lowy **RECEIVED BY** _____ **DATE/TIME** 12/15/00 2:05p

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HGS CHASE

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

PROJECT ROCKETDYNE CLIENT AMEC/OGDEN DATE 12/15/00

SAMPLE ID	Depth(ft) DEPTH	EOA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SUMMA #	MS #
ELSV42 5@1	6'	RR947	SUMMER 2000	1253 - 1305	B13	150	12	100	✓	4.7	93
ELSV53 5@1	5'	RR948	↓	1320 - 1332	H3	↓	12	↓	✓		105
EVSV13 5@1	5'	RR949	↓	1355 - 1407	X22	↓	12	↓	✓		106

Post-it® Fax Note 7671 Date 12/15 pages ▶ 2

To JOSE Co./Dept. Phone # Fax # 858-455-0943

From BARB LAZY Co. ROCKETDYNE Phone # Fax #

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lazy RECEIVED BY____ DATE/TIME 12/15/00 1745

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-201

PROJECT ROCKETDYNE CLIENT AMEC (OGDEN) DATE 12/15/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU #	ULS #
CLSV48F01	0	RV931	1 ——	734 - 750	X8	150	16	100ml	✓	AOC 7 (4.7)	100
CLSV48S03	13	RV932	2 11/30/00	734 - 749	N17		15		✓		100
CLSV48D03	13	RV933	3 11/30/00	734 - 749	H6		15		✓		100
CLSV48S04	18	RV934	4 11/30/00	734 - 750	X18		16		✓		100
CLSV50S01	5	RV935	5 12/01/00	800 - 812	E8		12		✓		101
CLSV50S02	10	RV936	6	800 - 814	Y6		14		✓		101
CLSV50S03	16	RV937	7 ↓	800 - 815	B11	↓	15	↓	✓	↓	101

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Tarp RECEIVED BY James M. Reed DATE/TIME 12/15/00 920 AM

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL V[illegible]OR CHAIN OF CUSTODY MW-2

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/18/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC Sonde #	ULS#
LSV72/S01	6	RV950	1 12/17/00	916 - 928	N17	150	12	100ml	✓	4.3	106
LSV72/S02	10	RV951	2	916 - 929	S22		13		✓		106
LSV72/S03	15	RV952	3	916 - 931	A16		15		✓		106
LSV71/S01	5	RV953	4	935 - 947	A5		12		✓		107
LSV71/D01	5'	RV954	5	935 - 947	X18		12		✓		107
LSV70/S01	5	RV955	6	954 - 1006	Y6		12		✓		62a
LSV70/S02	9	RV956	7	954 - 1007	E8		13		✓		62a
LSV70/F01	—	RV957	8	954 - 1007	B11		13		✓		62a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Barbara E. Lang RECEIVED BY [signature] DATE/TIME 12/18/00 1015

RELINQUISHED BY ____ RECEIVED BY ____ DATE/TIME ____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MY-202

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/18/00

SAMPLE ID-Depth(ft)	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU#	ULS#
LFSV17 S03	13'	RV 961	9 11/30/00	1114 - 1129	R8	150	15	100ml	✓	4,12	51
LFSV17 S04	18	RV 962	10	1114 - 1130	N2		16		✓		51
LFSV17 S01	3'	RV 963	11	1133 - 1145	R6		12		✓		51
LFSV17 S02	8'	RV 964	12 ↓	1133 - 1146	H6		13		✓		51
LFSV19 S01	6.5'	RV 965	13 11/30/00	1151 - 1203	W1		12		✓		42
LFSV20 S01	5'	RV966	14	1158 - 1210	X19		12		✓		96
LFSV 20 S02	10'	*RV967	15	1158 - 1212	X7		14		✓		96
LFSV21 S01	1.5'	RV968	16 ↓	1215 - 1225	H1		10		✓		7

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____ *No HGS Surr added. Re-sampling 12/19/00

RELINQUISHED BY: Barbara E. Lary RECEIVED BY [signature] DATE/TIME 12/18/00 1235 Per Jim Reed

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-202

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/18/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SWMU #	ULS#
LSV72/S01	6	RV950	1 12/17/00	916 - 928	N17	150	12	100ml	✓	4.3, 4.4	106
LSV72/S02	10	RV951	2	916 - 929	S22		13		✓		106
LSV72/S03	15	RV952	3	916 - 931	A16		15		✓		106
LSV71/S01	5	RV953	4	935 - 947	A5		12		✓		107
LSV71/D01	5'	RV954	5	935 - 947	X18		12		✓		107
LSV70/S01	5	RV955	6	954 - 1006	Y6		12		✓		62a
LSV70/S02	9	RV956	7	954 - 1007	E8		13		✓		62a
LSV70/F01	—	RV957	8	954 - 1007	B11	↓	13		✓	↓	62a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Barbara E. Lang **RECEIVED BY** [signature] **DATE/TIME** 12/18/00 1015

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MY-202

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/18/00

SAMPLE ID-Depth(ft)	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SW846 #	ULS #
LFSV17 S03	13'	RV 961	9 11/30/00	1114 - 1129	R8	150	15	100ml	✓	4,12	51
LFSV17 S04	18	RV 962	10	1114 - 1130	N2		16		✓		51
LFSV17 S01	3'	RV 963	11	1133 - 1145	R6		12		✓		51
LFSV17 S02	8'	RV 964	12	1133 - 1146	H6		13		✓		51
LFSV19 S01	6.5'	RV 965	13 11/30/00	1151 - 1203	W1		12		✓		42
LFSV20 S01	5'	RV966	14	1158 - 1210	X19		12		✓		96
LFSV20 S02	10'	*RV967	15	1158 - 1212	X7		14		✓		96
LFSV21 S01	1.5'	RV968	16	1215 - 1225	H1		10		✓		7

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____ *No HGS Surr added. Re-sampling 12/19/00

RELINQUISHED BY: Barbara E. Lary RECEIVED BY [signature] DATE/TIME 12/18/00 1235 Per Jim Reed

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-202

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/18/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SWMU #	ULS#
ILSV72/S01	6	RV950	1 12/17/00	916 - 928	N17	150	12	100ml	✓	4.3, 4.4	106
ILSV72/S02	10	RV951	2	916 - 929	S22		13		✓		106
ILSV72/S03	15	RV952	3	916 - 931	A16		15		✓		106
ILSV71/S01	5	RV953	4	935 - 947	A5		12		✓		107
ILSV71/D01	5'	RV954	5	935 - 947	X18		12		✓		107
ILSV70/S01	5	RV955	6	954 - 1006	Y6		12		✓		62a
ILSV70/S02	9	RV956	7	954 - 1007	E8		13		✓		62a
ILSV70/F01	—	RV957	8	954 - 1007	B11	↓	13		✓	↓	62a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Barbara E. Lacy **RECEIVED BY** [signature] **DATE/TIME** 12/18/00 1015

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY 114-202

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/18/00

SAMPLE ID-Depth(ft) AMEC ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SW846 #	WLS#
LSV72/501	6	RV950	1 12/17/00	916 - 928	N17	150	12	100mL	✓		106
LSV72/10'	10	RV951	2	916 - 929	S22		13		✓		106
LSV72/502	15	RV952	3	916 - 931	A16		15		✓		106
LSV71/501	6	RV953	4	935 - 947	A5		12		✓		107
LSV71/DUP	5'	RV954	5	935 - 947	X18		12		✓		107
LSV70/501	5	RV955	6	954 - 1006	Y6		12		✓		62a
LSV70/502	9	RV956	7	954 - 1007	E8		13		✓		62a
LSV70/FB1	—	RV957	8	954 - 1007	B11		13		✓		62a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY Barbara E. Terry RECEIVED BY [signature] DATE/TIME 12/18/00 1015

RELINQUISHED BY ____ RECEIVED BY ____ DATE/TIME ____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

PROJECT Rocketdyne CLIENT AMEC/Ogden DATE 12/19/00

SAMPLE ID-Depth(ft) AMEC ID#	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC Summa #	UCS #
LFSV20/S02	10'	RV967	11/30/00	1005 - 1018	R8	150	13	100ml	✓	4.12	96 RESAMPL
LFSV07/S01	22	RV971	REINSTALL 12/11/00	1026 - 1043	N2	↓	17	↓	✓	↓	57
CTSV11/S02	6.5	RV975	12/13/00	1054 - 1106	W1	↓	12	↓	✓	AREA I AOC	N/A
CTSV11/S01	2.5	RV976	↓	1054 - 1105	X7	↓	11	↓	✓	↓	N/A
CTSV9/S01	3'	RV977	2.0 ml/min	1102 - 1113	X19	↓	11	↓	✓	↓	↓
CTSV12/S01	3'	RV978	2.0 ml/min	1110 - 1121	H1	↓	11	↓	✓	↓	↓
CTSV12/S02	7'	RV979	ml/min	1110 - 1122	R6	↓	12	↓	✓	↓	↓
CTSV10/S01	4'	RV980	ml/min	1115 - 1127	X18	↓	12	↓	✓	↓	↓
CTSV13/S01	5.5	RV 981	2.0 ml/min	1128 - 1140	H6	↓	12	↓	✓	↓	↓
CTSV14/S01	1.5	RV 982	2.0 ml/min	1132 - 1142	E5	↓	10	↓	✓	↓	↓

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang RECEIVED BY Lance McReel DATE/TIME 12/19/00 1235

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL V POR CHAIN OF CUSTODY

114 13

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/19/00

SAMPLE ID-Depth(ft)	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropanol Alcohol Leak Check	MISC SWMU #	ULS #
MRSV01 S02	10'	RV969	12/11/00 REINSTALL	705 - 718	X8	150	13	100	✓	AREA IV AOC	4
~~SRSV02/S03~~	~~18'~~	~~RV970~~		~~726 - 742~~	~~E5~~		~~16~~		~~✓~~	PURGED	~~Del~~
SRSV02/S04	22'	RV971	↓	726 - 743	X6		17		✓		17
BUSV02/S02	11'	RV972	3	755 - 808	B11		13		✓	5.5	23a
BUSV02/DUP2	11'	RV973	4 ↓	755 - 808	N17		13		✓	5.5	23a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang RECEIVED BY Lance M. Reed DATE/TIME 12/19/00 900

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

M4-203

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/19/00

SAMPLE ID-Depth(ft)	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU #	ULS #
MCSV01 S02	10'	RV969	12/11/00 REINSTALL	705 - 718	X8	150	13	100	✓	AREA IV AOC	4
~~SRSV02/ S03~~	~~18'~~	RV970		726 - 742	E5		16		✓	PLUGGED	1 fail
SRSV02/S04	22'	RV971	2	726 - 743	X6		17		✓		17
BUSV02/S02	11'	RV972	3	755 - 808	B11		13		✓	5.5	23a
BU SV02/D02	11'	RV973	4 ↓	755 - 808	N17		13		✓	5.5	23a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lacy **RECEIVED BY** James M. Reed **DATE/TIME** 12/19/00 900

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY M4-203

PROJECT Rocketdyne CLIENT AMEC DATE 12/19/00

SAMPLE ID-Depth(ft)	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU #	ULS #
MCSV01 S02	10'	RV969	12/11/00 REINSTALL 1	705 - 718	X8	150	13	100	✓	AREA IV AOC	4
~~SRSV02/S03~~	~~18'~~	~~RV970~~		~~726 - 742~~	~~E5~~		~~16~~		~~✓~~	PURGED ~~fail~~	
SRSV02/S04	22'	RV971	2	726 - 743	X6		17		✓		17
BUSV02/S02	11'	RV972	3	755 - 808	B11		13		✓	5.5	23a
BUSV02/D02	11'	RV973	4 ↓	755 - 808	N17		13		✓	5.5	23a

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang **RECEIVED BY** James M. Reed **DATE/TIME** 12/19/00 900

RELINQUISHED BY_____ **RECEIVED BY**_____ **DATE/TIME**_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

114-203

PROJECT ROCKETDYNE CLIENT AMEC/OGDEN DATE 12/19/00

SAMPLE ID-Depth(ft) AMEC ID#	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU #	UCS #
LFSV20 S02	10'	RV967	11/30/00	1005 - 1018	R8	150	13	100ml	✓	4.12	96 RESAMPL
LFSV07 S04	22	RV974	REINSTALL 12/11/00	1026 - 1043	N2		17		✓	↓	57
CTSV11/S02	6.5	RV975	12/13/00	1054 - 1106	W1		12		✓	AREA I AOC	N/A
CTSV11/S01	2.5	RV976	8	1054 - 1105	X7		11		✓		N/A
CTSV9/S01	3'	RV977	9	1102 - 1113	X19		11		✓		
CTSV12/S01	3'	RV978	10	1110 - 1121	H1		11		✓		
CTSV12/S02	7'	RV979	11	1110 - 1122	R6		12		✓		
CTSV10/S01	4'	RV980	12	1115 - 1127	X18		12		✓		
CTSV13/S01	3.5	RV 980	13	1128 - 1140	H6		12		✓		
CTSV14/S01	1.5	RV 982	14	1132 - 1142	E5	↓	10	↓	✓	↓	↓

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lary RECEIVED BY Lance McReed DATE/TIME 12/19/00 1235

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-203

PROJECT Rocketdyne CLIENT AMEC/Ogden DATE 12/19/00

SAMPLE ID-Depth(ft) AMEC ID#	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	ISOPROPYL ALCOHOL Leak Check	MISC SWMU #	ULS #
LFSV20 S02	10'	RV967	11/30/00	1005 - 1018	R8	150	13	100ml	✓	4.12	96 RESAMP
LFSV07 S04	22	RV974	REINSTALL 12/11/00	1026 - 1043	N2	"	17	"	✓	↓	57
CTSV11/S02	6.5	RV975	12/13/00	1054 - 1106	W1	"	12	"	✓	AREA I AOC	N/A
CTSV11/S01	2.5	RV976	8	1054 - 1105	X7	"	11	"	✓	"	N/A
CTSV9/S01	3'	RV977	9	1102 - 1113	X19	"	11	"	✓	"	"
CTSV12/S01	3'	RV978	10	1110 - 1121	H1	"	11	"	✓	"	"
CTSV12/S02	7'	RV979	11	1110 - 1122	R6	"	12	"	✓	"	"
CTSV10/S01	4'	RV980	12	1115 - 1127	X18	"	12	"	✓	"	"
CTSV13/S01	3.5	RV 980	13	1128 - 1140	H6	"	12	"	✓	"	"
CTSV14/S01	1.5	RV 982	14	1132 - 1142	E5	"	10	"	✓	"	"

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: Barbara E. Lang **RECEIVED BY** James M. Reed **DATE/TIME** 12/19/00 1235

RELINQUISHED BY _____ **RECEIVED BY** _____ **DATE/TIME** _____

HydroGeoSpectrum Inc, POB 49259, LA, CA 90049 Phone(310)458-0973

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-204

PROJECT Rocket Dyne CLIENT AMEC DATE 12/20/00

SAMPLE ID-Depth(ft)	DEPTH	EQA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU #	ULS #
~~1LSV075Ø1~~	5'	RV9831	12/14/00	1650 – 1602	X8	150	12	100ml	✓	A1AOC	
~~1LSV075Ø2~~	10'	—	12/14/00	—	—	Ø	—	—	—	—	
~~1LSV075Ø3~~	14.5'	RV9842	12/14/00	1650 – 1605	B11	150	15	100ml	✓	A1AOC	

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12/20/00 530pm

RELINQUISHED BY_____ RECEIVED BY_____ DATE/TIME_____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY MW-204

PROJECT Rocket Dyne CLIENT AMEC DATE 12/20/00

SAMPLE ID-Depth(ft)	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Isopropyl Alcohol Leak Check	MISC SWMU #	ULS #
~~1LSV0750~~1	5'	RV9831	12/14/00	1650 – 1602	X8	150	12	100ml	✓	A1A0C	
1LSV0752	10'	→	12/14/00	→	—	0	—	—	—	→	
1LSV0753	14.5'	RV9842	12/14/00	1650 – 1605	B11	150	15	100ml	✓	A1A0C	

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12/20/00 530

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HyaroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-20S

PROJECT Rocket Dyne CLIENT AMEC DATE 12/21/00

SAMPLE ID-Depth(ft)			INSTALLED	SAMPLED	BULB	FLOW	TIME	Purge	Leak Check	MISC	
06. ID	Depth	EPA ID			ID	ml/min	min	Vol		SMMV #	VLS #
LSV70501	5'	RV986	12/17/00	0912-0924	R8	150	12	100ml	✓	4.3/4.4	602
LSV70502	9'	RV987	↓	0912-0925	A16	↓	13	↓	✓	↓	↓
LSV71501	5'	RV988		0936-0948	N2	150	12		✓	↓	107
LSV72501	6'	RV989		1003-1015	A5	↓	12		✓	↓	106
LSV72502	10'	RV990		1003-1018	Y6	↓	15		✓	↓	106
LSV72503	15'	RV991		1021-1036	G8	150	15		✓	↓	↓
LSV72D03	15'	RV992	↓	1021-1036	H6	↓	15		✓	↓	↓

RROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12/21/00 10:50 am

RELINQUISHED BY____ RECEIVED BY ____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

PROJECT Rocket Dyne CLIENT AMEC DATE 12/21/00

SAMPLE ID-Depth(ft) OGDEN ID	DEPTH	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	IPA Leak Check	MISC SVMU #	VLS #
ILSV635Φ1	5'	—	12/12/00	NONE	522	Φ	—	100ml	✓	4.3/4.4	105
ILSV635Φ2	10'	—		NONE	X7	Φ	—		✓		103
ILSV645D1	5'	RV993	B	1304-1316	H1	150	12'		✓		
ILSV645D2	10'	RV994	9	1304-1318	X8	150	14'		✓		
ILSV645D3	15'	RV995	10	1304-1319	E5	150	15'		✓		
ILSV655D1	6'	RV996	4	1326-1338	X7	150	12		✓		102
ILSV675D1	3'	RV997	12	1347-1359	B11	150	12		✓		100
ILSV675D2	8'	—		1347-	522	Φ			✓		
ILSV675D3	13'	RV998	13	1347-1401	R6	150	14		✓		
ILSV685D1	3.5'	RV999	14	1405-1417	522	150	12		—		104
ILSV685D1	3.5'	2nd RTVOD1	15	1405-1417	W1	150	12		✓		104

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12-21-00 14:45

RELINQUISHED BY_____ RECEIVED BY _____ DATE/TIME_____

HydroGeoSpectrum SOIL V..POR CHAIN OF CUSTODY

M: 205

PROJECT Rocket Dyne CLIENT AMEC DATE 12/21/00

SAMPLE ID-Depth(ft) D6. I.D	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC SUMM. #	ULS #
ILSV72501	5'	RV986	12/17/00	0912-0924	R8	150	12	100ml	✓	43/44	602
ILSV72502	9'	RV987	↓	0912-0925	A16	↓	13	↓	✓	↓	↓
ILSV72503	5'	RV988		0936-0948	N2	150	12		✓	↓	107
ILSV72501	6'	RV989		1003-1015	A5	↓	12		✓		106
ILSV72502	10'	RV990		1003-1018	Y6	↓	15		✓	↓	106
ILSV72503	15'	RV991		1021-1036	G8	150	15		✓		↓
ILSV72D03	15'	RV992	↓	1021-1036	H6	↓	15	↓ F.B. 5/3/01	✓	↓	↓

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12/21/00 10:50 am

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

HydroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

MW-105

PROJECT Rocket Dyne CLIENT AMEC DATE 12/21/00

SAMPLE ID-Depth(ft)			INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	Leak Check	MISC	
SG. I.D	Depth	EPA ID								SUMM #	VLS #
SV70501	5'	RV986	12/17/00	0912-0924	R8	150	12	100ml	✓	4.3/4.4	62
SV705D2	9'	RV987	↓	0912-0925	A16	↓	13	↓	✓	↓	↓
SV71501	5'	RV988		0936-0948	N2	150	12		✓	↓	107
SV72501	6'	RV989		1003-1015	A5	↓	12		✓		106
SV72502	10'	RV990		1003-1018	Y6	↓	15		✓	↓	106
SV72503	15'	RV991		1021-1036	G8	150	15		✓		↓
SV72D03	15'	RV992	↓	1021-1036	H6	↓	15		✓	↓	↓

ROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12/21/00 10:50 am

RELINQUISHED BY_____ RECEIVED BY _____ DATE/TIME_____

HyaroGeoSpectrum SOIL VAPOR CHAIN OF CUSTODY

PROJECT ROCKETDYNE CLIENT AMEC DATE 12/21/00

SAMPLE ID-Depth(ft) OGDEN ID	Depth	EPA ID	INSTALLED	SAMPLED	BULB ID	FLOW ml/min	TIME min	Purge Vol	IPA Leak Check	MISC SWMU #	ULS #
LSV635Φ1	5'	—	12/12/00	NONE	S22	Φ	—	100ml	✓	4.3/4.4	105
LSV635Φ2	10'	—		NONE	X7	Φ	—		✓		103
LSV645D1	5'	RV993	B	1304 - 1316	H1	150	12'		✓		
LSV645D2	10'	RV994	9	1304 - 1318	X8	150	14'		✓		
LSV645D3	15'	RV995	10	1304 - 1319	E5	150	15'	↓	✓		↓
LSV655D1	6'	RV996	4	1326 - 1338	X7	150	12	↓	✓		102
LSV675D1	3'	RV997	2	1347 - 1359	B11	150	12		✓		100
LSV675D2	8'	—		1347 -	S22	Φ			✓		
LSV675D3	13'	RV998	8	1347 - 1401	R6	150	14	↓	✓	↓	↓
LSV685D1	3.5'	RV999	11	1405 - 1417	S22	150	12		—		104
LSV685D1	3.5'	R3D TVOD1	5	1405 - 1417	W1	150	12	↓	✓	↓	104

SURROGATES: D6-Benzene____ D8-Toluene____ D-Chloroform____ D6-DMK____ D-DCM____

RELINQUISHED BY: [signature] RECEIVED BY [signature] DATE/TIME 12-21-00 14:45

RELINQUISHED BY____ RECEIVED BY____ DATE/TIME____

Centrum Analytical Laboratories, Inc.
www.centrum-labs.com
lab@centrum-labs.com

1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 ● 800.798.9336
Fax: 909.779.0344

3299 Hill Street, Suite 305
Signal Hill, CA 90755
Voice: 562.498.7005
Fax: 562.498.8617

Chain of Custody Record

Centrum Job # M4-791

Project No: 1890863.011209

Project Name: Boeing SSFL

Project Manager: Dixie Hambrick

Phone: 626.568.6348 Fax:

Client Name: (Report and Billing) Montgomery Watson Harza

Address: (Report and Billing) 300 N. Lake Avenue, #1200 Pasadena, CA 91101

Turn-Around Time
☐ 24 Hr. RUSH*
☐ 48 Hr. RUSH*
☐ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: ______

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Depth (ft)	EPA ID	BULB ID	Time Sampled start	Time Sampled stop	Flow (ml/min)	Date sampled	Sample matrix	Containers: # and type	Isopropyl Alcohol Leak Check	GCMS: 8260B mod. LARWQCB 23 soil gas	Remarks/Special Instructions
1	SRSV08 S01	3'	MV565	M4-8	0903	0915	150	2/27/06	SV	125cc Glass Bulb	X	X	
2	SRSV09 S01	4'	MV566	M4-12	0919	0931	150	↓	↓	↓	X	X	
3	SRSV10 S01	4.5 FB	MV567	M4-13	0940	0954	150	↓	↓	↓	X	X	
4	SRSV11 S01	5	MV568	M4-5	0957	1009	↓	↓	↓	↓	X	X	brown - shortest
5	SRSV11 S02	13	MV569	M4-6	1009	1024	↓	↓	↓	↓	X	X	green - 2nd shortest
6	SRSV11 S03	20	MV570	M4-2	1026	1043	↓	↓	↓	↓	X	X	red
7	SRSV11 D03	20	MV571	M4-10	1026	1043	↓	↓	↓	↓	X	X	red
8	SRSV11 S04	27	MV572	M4-11	1047	1106	↓	↓	↓	↓	X	X	clear
9	OCSV01 S01	7	MV573	M4-9	1114	1127	↓	↓	↓	↓	X	X	
10	OCSV03 S01	7	MV574	M4-7	1128	1141	↓	↓	↓	↓	X	X	

1) Relinquished by: (Sampler's Signature) [signature] Date: 2/27/06 Time: 1145

2) Received by: Date: Time:

3) Relinquished by: Date: Time:

4) Received by: Date: Time:

5) Relinquished by: Date: Time:

6) Received for Laboratory by: [signature] Date: 2/27/06 Time: 1145

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☐ No ☒ From Field
Custody seals? ☐ Yes ☒ No
All sample containers intact? ☒ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal
☐ Client will pick up
☐ Return to client
☐ Lab disposal

Laboratory Notes:

Sample Locator No.

12269 East Vassar Drive, Aurora, CO 80014
720.535.5502, Fax 720.535.7555

DATA ASSESSMENT FORM

Project Title:	Boeing SSFL RFI, Group 6 Data Gap
Project Manager:	D. Hambrick
Analysis/Method:	Volatiles by EPA Method 8260B
QC Level:	V[1]
SDG:	M4-791
Matrix:	Soil Vapor
No. of Samples:	10
No. of Reanalyses/Dilutions:	0
Date Reviewed:	March 16, 2006
Reviewer:	P. Meeks
Reference:	USEPA *Contract Laboratory Program National Functional Guidelines for Organic Data Review* (2/94), and *Interim Guidance for Active Soil Gas Investigations*, State of California Regional Water Quality Control Board - Los Angeles Region (LARWQCB, 1997), and *Advisory – Active Soil Gas Investigations*, LARWQCB and Department of Toxic Substance Control (2003)
Samples Reviewed:	MV565, MV566, MV567, MV568, MV569, MV570, MV571, MV572, MV573, MV574

Data Validation Findings

	Findings	Qualifications
1. Sample Management	The COC was signed and dated by field and mobile laboratory personnel. According to the COC and the instrument run log, the eight-hour holding time was met for all samples.	No qualifications were required.
3. Calibration	The BFB tune was acceptable and all samples were analyzed within 12 hours of the BFB tune. The %RSDs for the initial calibration were all within the control limit of ≤20% and ≤30% for trichlorofluoromethane, dichlorodifluoromethane, trichlorotrifluoromethane, chloroethane, and vinyl chloride.	No qualifications were required.

	Findings	Qualifications
3. Calibration (cont.)	The %Ds for the continuing calibrations were within the control limit of ≤15% and ≤25% for trichlorofluoromethane, dichlorodifluoromethane, trichlorotrifluoromethane, chloroethane, and vinyl chloride.	
4. Method Blanks	One ambient air method blank was analyzed in association with the samples in this SDG. No target compounds were reported above the CRDL.	No qualifications were required.
6. Surrogates	All surrogate recoveries were within the LARWQCB method-established control limits of 75-125%.	No qualifications were required.
10. Other	Samples MV570 and MV571 were identified as the field duplicate pair associated with the samples in this SDG. No target compounds were detected in either sample and the pair was considered to be in agreement. As there were no sample detects, the mobile laboratory analyzed an LCS spiked at the reporting limit. All %Ds were considered acceptable.	No qualifications were required
Comments	Per previous conversations with the analyst, compounds crossed out in the mass spectrometer raw data and annotated with, "ID," refer to compounds reported by the instrument but which lacked a spectral match.	No qualifications were required.

[1] Level V validation consists of cursory review of the summary forms only; raw data is not evaluated. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed. Criteria not reviewed included instrument performance, analytical sequence, initial calibration, continuing calibration, compound identification, and compound quantification.

Centrum Analytical Laboratories, Inc.

Project No: Boeing SSFL / 1890863.011209 (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: GCMS **REPORTING UNIT: µg/L of Air**

DATE ANALYZED		02/27/06	02/27/06	02/27/06	02/27/06	02/27/06
ANALYTICAL BATCH		022706M4V1369	022706M4V1369	022706M4V1369	022706M4V1369	022706M4V1369
LAB SAMPLE I.D.		Amb. Blank	M4-791-01	M4-791-02	M4-791-03	M4-791-04
CLIENT SAMPLE I.D.		NA	SRSV08S01	SRSV09S01	SRSV10S01	SRSV11S01
DEPTH		NA	3'	4'	4'	5'
EPA ID		NA	MV565	MV566	MV567	MV568
DILUTION FACTOR		1	1	1	1	1
COMPOUND	**CRDL**					
Benzene	1.0	ND	ND U	ND U	ND U	ND U
Carbon tetrachloride	1.0	ND	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND	ND
Dichlorodifluoromethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND	ND
Methylene chloride	50	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	2.0	ND	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	5.0	ND	ND	ND	ND	ND
Vinyl chloride	2.0	ND	ND	ND	ND	ND
Xylenes, m-,p-	2.0	ND	ND	ND	ND	ND
Xylene, o-	1.0	ND	ND	ND	ND	ND
TENTATIVELY IDENTIFIED COMPOUNDS						
Isopropyl Alcohol (Tracer)		ND	ND	ND	ND	ND
SURROGATE	**SPK CONC**	**ACP%**	**%RC**	**%RC**	**%RC**	**%RC**	**%RC**
d-Methylene Chloride	50	70-130	123	117	113	109	115
d-Chloroform	50	70-130	116	113	108	107	109
d-Benzene	50	70-130	121	117	112	109	111
Dibromofluoromethane	50	70-130	97	99	98	100	99
Toluene-d8	50	70-130	102	101	101	105	101
Bromofluorobenzene	50	70-130	100	101	101	101	100

LEVEL V

Centrum Analytical Laboratories, Inc.

Project No: Boeing SSFL / 1890863.011209 (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: GCMS **REPORTING UNIT: µg/L of Air**

DATE ANALYZED			02/27/06		02/27/06		02/27/06		02/27/06	
ANALYTICAL BATCH			022706M4V1369		022706M4V1369		022706M4V1369		022706M4V1369	
LAB SAMPLE I.D.			M4-791-05		M4-791-06		M4-791-07		M4-791-08	
CLIENT SAMPLE I.D.			SRSV11S02		SRSV11S03		SRSV11D03		SRSV11S04	
DEPTH			13'		20'		20'		27'	
EPA ID			MV569		MV570		MV571		MV572	
DILUTION FACTOR			1	Raw Qual	1	Raw Qual	1	Raw Qual	1	Raw Qual
COMPOUND		**CRDL**		Qual Code		Qual Code		Qual Code		Qual Code
Benzene		1.0	ND	U	ND	U	ND	U	ND	U
Carbon tetrachloride		1.0	ND		ND		ND		ND	
Chloroethane		1.0	ND		ND		ND		ND	
Chloroform		1.0	ND		ND		ND		ND	
Dichlorodifluoromethane		1.0	ND		ND		ND		ND	
1,1-Dichloroethane		1.0	ND		ND		ND		ND	
1,2-Dichloroethane		1.0	ND		ND		ND		ND	
1,1-Dichloroethene		1.0	ND		ND		ND		ND	
cis-1,2-Dichloroethene		1.0	ND		ND		ND		ND	
trans-1,2-Dichloroethene		1.0	ND		ND		ND		ND	
Ethylbenzene		1.0	ND		ND		ND		ND	
Methylene chloride		50	ND		ND		ND		ND	
1,1,1,2-Tetrachloroethane		1.0	ND		ND		ND		ND	
1,1,2,2-Tetrachloroethane		2.0	ND		ND		ND		ND	
Tetrachloroethene		1.0	ND		ND		ND		ND	
Toluene		1.0	ND		ND		ND		ND	
1,1,1-Trichloroethane		1.0	ND		ND		ND		ND	
1,1,2-Trichloroethane		1.0	ND		ND		ND		ND	
Trichloroethene		1.0	ND		ND		ND		ND	
Trichlorofluoromethane		1.0	ND		ND		ND		ND	
Trichlorotrifluoroethane		5.0	ND		ND		ND		ND	
Vinyl chloride		2.0	ND		ND		ND		ND	
Xylenes, m-,p-		2.0	ND		ND		ND		ND	
Xylene, o-		1.0	ND		ND		ND		ND	
TENTATIVELY IDENTIFIED COMPOUNDS										
Isopropyl Alcohol (Tracer)			ND		ND		ND		ND	
SURROGATE	**SPK CONC**	**ACP%**	**%RC**		**%RC**		**%RC**		**%RC**	
d-Methylene Chloride	50	70-130	113		117		112		111	
d-Chloroform	50	70-130	107		113		106		104	
d-Benzene	50	70-130	110		117		107		107	
Dibromofluoromethane	50	70-130	100		100		98		93	
Toluene-d8	50	70-130	103		103		102		92	
Bromofluorobenzene	50	70-130	100		102		101		99	

LEVEL V

Centrum Analytical Laboratories, Inc.

Project No: Boeing SSFL / 1890863.011209 (RWQCB labFrom 10A; Ver6/00)

ANALYTICAL RESULT FOR ORGANICS

METHOD: GCMS **REPORTING UNIT: µg/L of Air**

DATE ANALYZED			02/27/06				
ANALYTICAL BATCH			022706M4V1369				
LAB SAMPLE I.D.			M4-791-10				
CLIENT SAMPLE I.D.			OCSV03S01				
DEPTH			7'				
EPA ID			MV574				
DILUTION FACTOR			1 Rev	Qual			
COMPOUND		**CRDL**		Qual			
Benzene		1.0	ND U				
Carbon tetrachloride		1.0	ND				
Chloroethane		1.0	ND				
Chloroform		1.0	ND				
Dichlorodifluoromethane		1.0	ND				
1,1-Dichloroethane		1.0	ND				
1,2-Dichloroethane		1.0	ND				
1,1-Dichloroethene		1.0	ND				
cis-1,2-Dichloroethene		1.0	ND				
trans-1,2-Dichloroethene		1.0	ND				
Ethylbenzene		1.0	ND				
Methylene chloride		50	ND				
1,1,1,2-Tetrachloroethane		1.0	ND				
1,1,2,2-Tetrachloroethane		2.0	ND				
Tetrachloroethene		1.0	ND				
Toluene		1.0	ND				
1,1,1-Trichloroethane		1.0	ND				
1,1,2-Trichloroethane		1.0	ND				
Trichloroethene		1.0	ND				
Trichlorofluoromethane		1.0	ND				
Trichlorotrifluoroethane		5.0	ND				
Vinyl chloride		2.0	ND				
Xylenes, m-,p-		2.0	ND				
Xylene, o-		1.0	ND				
TENTATIVELY IDENTIFIED COMPOUNDS							
Isopropyl Alcohol (Tracer)			ND				
SURROGATE	**SPK CONC**	**ACP%**	**%RC**				
d-Methylene Chloride	50	70-130	107				
d-Chloroform	50	70-130	108				
d-Benzene	50	70-130	105				
Dibromofluoromethane	50	70-130	104				
Toluene-d8	50	70-130	116				
Bromofluorobenzene	50	70-130	107				

LEVEL IV

OGDEN ENVIRONMENTAL AND ENERGY SERVICES
550 South Wadsworth Blvd., Suite 500, Lakewood, CO 80226
303/935-6505, Fax 303/935-6575

DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
QC Level: V[1]
SDG: 24
Matrix: Soil Vapor
No. of Samples: 47
No: of Reanalyses/Dilutions: 0
Date Reviewed: April 24, 2001
Reviewer: K. Chapman
Reference: *USEPA Contract Laboratory Program National Functional Guidelines For Organic Data Review, (Feb. 1994)*, and Interim Guidance For Active Soil Gas Investigation, State of California Regional Water Quality Control Board (LA Region).

EPA Level V – Volatiles Assessment

Data Validation Findings

	Problems	Qualifications
1. Sample Management	There were instances on the COC of uninitialed corrections to the information.	No qualifications were required as field logs were reviewed to verify the accuracy of the undocumented corrections. Field personnel reviewing the accuracy of the field logs initialed and dated the COCs.
4 Method Blanks	No problems were noted with the method blanks. Five method blanks were analyzed with this SDG. No target compounds were detected in the method blanks.	No qualifications were required.

	Problems	Qualifications
6 Surrogates	Samples RV819, RV833, RV827, and RV804 had surrogate recoveries outside the laboratory-established QC limits. The original analysis of samples RV811 and RV813 had surrogate recoveries below the control limits. These samples were reanalyzed the following day. The reviewer chose to report the original analyses and hand-corrected the Form Is to reflect the low surrogate recoveries.	Samples with surrogate recoveries below the QC limit were qualified estimated, "UJ" for nondetects and "J" for detects. Samples with surrogate recoveries above the QC limits were qualified "J" for detects only. Results for these samples were qualified estimated, "UJ" for nondetects and "J" for detects.
7. Calibration	The calibration verification standard analyzed with samples RV819-RV833 exhibited %D outliers for tetrachloroethene and dichlorodifluoromethane. The calibration verification standard analyzed with samples RV803-RV816 exhibited a %D outlier for chloroethane. The calibration verification standard analyzed with samples RV817 and RV818 exhibited %D outliers for tetrachloroethene and dichlorodifluoromethane.	Samples RV819-RV833 were qualified as estimated, "UJ" for the noted compounds. Samples RV803-RV816 were qualified as estimated, "UJ" for the noted compound. Samples RV817 and RV818 were qualified as estimated, "UJ" for the noted compounds.
10. Other	According to the laboratory, the reporting limit of either 10 ppb or 20 ppb on the Form Is for 1,1,2-trichloro-trifluoroethane is incorrect. This reporting limit should be 5.0 ppb. The reviewer hand-corrected the Form Is to reflect the correct reporting limit. As the laboratory MDL study does support a reporting limit of 1.0 ppb, detects between 1.0 ppb and 5.0 ppb were reported as estimated values. The detects for cis-1,2-dichloroethene and trichloroethene in sample RV801 were reported from a 10 × dilution.	Detects below 5.0 ppb reported for samples RV787, RV788, RV796-RV810, RV812, and RV815-RV833 were qualified as estimated "J." These results were noted on the Form I as being reported from a dilution.
Comments	None.	

[1] A modified level V validation was performed, reviewing only the sample management, surrogate, blank, and calibration data. The blank and surrogate qualifications are based solely upon summary information, unless otherwise noted. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		07/31/00	07/31/00		07/31/00		07/31/00	
ANALYTICAL BATCH		000731M4V219	000731M4V219		000731M4V219		000731M4V219	
DILUTION FACTOR		1.0	1.0		1.0		1.0	
CLIENT SAMPLE I.D.		NA	LXSV05S01		LXSV05S02		EVSV10S01	
EPA I.D. & DEPTH		NA	RV787 5'		RV788 11'		RV789 4'	
LAB SAMPLE I.D.		Blank	M4-150-01		M4-150-02		M4-150-03	
COMPOUND	**RL**		Rev Qual	Qual Code	Rev Qual	Qual Code	Rev Qual	Qual Code
Dichlorodifluoromethane	1.0	ND	ND U		ND U		ND U	
Vinyl Chloride	1.0	ND	ND		ND		ND	
Chloroethane	1.0	ND	ND		ND		ND	
Trichlorofluoromethane	1.0	ND	ND		ND		ND	
1,1-Dichloroethene	1.0	ND	ND		ND		ND	
Methylene Chloride	1.0	ND	ND		ND		ND	
cis-1,2-Dichloroethene	1.0	ND	ND		ND		ND	
1,1-Dichloroethane	1.0	ND	ND		ND		ND	
trans-1,2-Dichloroethene	1.0	ND	ND		ND		ND	
Chloroform	1.0	ND	ND		ND		ND	
1,1,1-Trichloroethane	1.0	ND	ND		ND		ND	
Carbon Tetrachloride	1.0	ND	ND		ND		ND	
1,2-Dichloroethane	1.0	ND	ND		ND		ND	
Benzene	1.0	ND	ND		ND		ND	
Trichloroethene	1.0	ND	ND		ND		ND	
Toluene	1.0	ND	ND		ND		ND	
1,1,2-Trichloroethane	1.0	ND	ND		ND		ND	
Tetrachloroethene	1.0	ND	ND		ND		ND	
Ethylbenzene	1.0	ND	ND		ND		ND	
1,1,1,2-Tetrachloroethane	1.0	ND	ND		ND		ND	
m,p-Xylenes	2.0	ND	ND		ND		ND	
o-Xylene	1.0	ND	ND ↓		ND ↓		ND ↓	
1,1,2,2-Tetrachloroethane	1.0	ND	ND U		ND U		ND U	
1,1,2-Trichloro-trifluoroethane	5.020	ND	4.1 ~~ND~~ J	-	4.2 ~~ND~~ J	-	6.8 ~~ND~~	-

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	50	75-125	101	83	96	98
d-Chloroform	50	75-125	104	85	99	98
d-Benzene	50	75-125	102	86	101	99
Dibromofluoromethane	50	75-125	106	104	103	102
Toluene-d8	50	75-125	101	101	102	101
Bromofluorobenzene	50	75-125	114	111	113	110

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

LEVEL V KEL 4/6/01

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		07/31/00	07/31/00	07/31/00	07/31/00
ANALYTICAL BATCH		000731M4V219	000731M4V219	000731M4V219	000731M4V219
DILUTION FACTOR		1.0	1.0	1.0	1.0
CLIENT SAMPLE I.D.		EVSV11S01	EVSV11S02	EVSV13S01	EVSV15S01
EPA I.D. & DEPTH		RV790 6'	RV791 13'	RV792 4'	RV793 4.5'
LAB SAMPLE I.D.		M4-150-04	M4-150-05	M4-150-06	M4-150-07
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND ↓	ND ↓
Benzene	1.0	ND	ND	ND U	ND U
Trichloroethene	1.0	ND	ND	**150**	**1.1**
Toluene	1.0	ND	ND	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	2.0	ND	ND	ND	ND
o-Xylene	1.0	ND ↓	ND ↓	ND ↓	ND ↓
1,1,2,2-Tetrachloroethane	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloro-trifluoroethane	5.020	7.4 ~~ND~~ -	7.0 ~~ND~~ -	10 ~~ND~~ -	9.7 ~~ND~~ -

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	50	75-125	105	104	103	84
d-Chloroform	50	75-125	105	106	106	85
d-Benzene	50	75-125	107	107	111	88
Dibromofluoromethane	50	75-125	102	105	103	104
Toluene-d8	50	75-125	101	99	100	103
Bromofluorobenzene	50	75-125	111	114	109	112

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KEC 4/6/01

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		07/31/00		07/31/00		
ANALYTICAL BATCH		000731M4V219		000731M4V219		
DILUTION FACTOR		1.0		1.0		
CLIENT SAMPLE I.D.		SLSV19S01		SLSV20S01		
EPA I.D. & DEPTH		RV794 1'		RV795 4'		
LAB SAMPLE I.D.		M4-150-08		M4-150-09		
COMPOUND	RL	Rev Qual	Qual code	Rev Qual	Qual code	
Dichlorodifluoromethane	1.0	ND U		ND U		
Vinyl Chloride	1.0	ND		ND		
Chloroethane	1.0	ND		ND		
Trichlorofluoromethane	1.0	ND		ND		
1,1-Dichloroethene	1.0	ND		ND		
Methylene Chloride	1.0	ND		ND		
cis-1,2-Dichloroethene	1.0	ND		ND		
1,1-Dichloroethane	1.0	ND		ND		
trans-1,2-Dichloroethene	1.0	ND		ND		
Chloroform	1.0	ND		ND		
1,1,1-Trichloroethane	1.0	ND		ND		
Carbon Tetrachloride	1.0	ND		ND		
1,2-Dichloroethane	1.0	ND		ND		
Benzene	1.0	ND		ND		
Trichloroethene	1.0	ND		ND		
Toluene	1.0	ND		ND		
1,1,2-Trichloroethane	1.0	ND		ND		
Tetrachloroethene	1.0	ND		ND		
Ethylbenzene	1.0	ND		ND		
1,1,1,2-Tetrachloroethane	1.0	ND		ND		
m,p-Xylenes	2.0	ND		ND		
o-Xylene	1.0	ND ↓		ND ↓		
1,1,2,2-Tetrachloroethane	1.0	ND U		ND U		
1,1,2-Trichloro-trifluoroethane	5.020	8.9 ~~ND~~	-	8.4 ~~ND~~	-	

SURROGATE	SPK CONC	ACP%	%REC	%REC		
d-Methylene Chloride	50	75-125	107	97		
d-Chloroform	50	75-125	110	96		
d-Benzene	50	75-125	114	96		
Dibromofluoromethane	50	75-125	103	103		
Toluene-d8	50	75-125	95	102		
Bromofluorobenzene	50	75-125	113	112		

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

REVIEWED 4/6/01 REC

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/01/00	08/01/00		08/01/00		08/01/00	
ANALYTICAL BATCH		000801M4V220	000801M4V220		000801M4V220		000801M4V220	
DILUTION FACTOR		1.0	1.0		1.0		1.0	
CLIENT SAMPLE I.D.		NA	SLSV19S02		L2SV01S01		L2SV02S01	
EPA I.D. & DEPTH		NA	RV796 8'		RV797 7'		RV798 7'	
LAB SAMPLE I.D.		Blank	M4-151-01		M4-151-02		M4-151-03	
COMPOUND	RL		Rev Qual	Qual Code	Rev Qual	Qual Code	Rev Qual	Qual Code
Dichlorodifluoromethane	1.0	ND	ND U		ND U		ND U	
Vinyl Chloride	1.0	ND	ND		ND		ND	
Chloroethane	1.0	ND	ND		ND		ND	
Trichlorofluoromethane	1.0	ND	ND		ND		ND	
1,1-Dichloroethene	1.0	ND	ND		ND		ND	
Methylene Chloride	1.0	ND	ND		ND		ND	
cis-1,2-Dichloroethene	1.0	ND	ND		ND		ND	
1,1-Dichloroethane	1.0	ND	ND		ND		ND	
trans-1,2-Dichloroethene	1.0	ND	ND		ND		ND	
Chloroform	1.0	ND	ND		ND		ND	
1,1,1-Trichloroethane	1.0	ND	ND		ND		ND	
Carbon Tetrachloride	1.0	ND	ND		ND		ND	
1,2-Dichloroethane	1.0	ND	ND		ND		ND	
Benzene	1.0	ND	ND		ND		ND	
Trichloroethene	1.0	ND	ND		ND		ND	
Toluene	1.0	ND	ND		ND		ND	
1,1,2-Trichloroethane	1.0	ND	ND		ND		ND	
Tetrachloroethene	1.0	ND	ND		ND		ND	
Ethylbenzene	1.0	ND	ND		ND		ND	
1,1,1,2-Tetrachloroethane	1.0	ND	ND		ND		ND	
m,p-Xylenes	2.0	ND	ND		ND		ND	
o-Xylene	1.0	ND	ND ✓		ND ✓		ND ✓	
1,1,2,2-Tetrachloroethane	1.0	ND	ND U		ND U		ND U	
1,1,2-Trichloro-trifluoroethane	5.020	ND	4.2 ~~ND~~ J	Z8	2.7 ~~ND~~ J	-	2.8 ~~ND~~ J	-

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	115	107	118	122
d-Chloroform	25	75-125	108	106	115	119
d-Benzene	25	75-125	115	104	119	123
Dibromofluoromethane	50	75-125	102	105	104	101
Toluene-d8	50	75-125	100	101	103	101
Bromofluorobenzene	50	75-125	111	112	110	114

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

VEC 4/6/01

EVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/01/00	08/01/00	08/01/00	08/01/00
ANALYTICAL BATCH		000801M4V220	000801M4V220	000801M4V220	000801M4V220
DILUTION FACTOR		1.0	1.0	10	1.0
CLIENT SAMPLE I.D.		MCSV01S01	CLSV41S01	CLSV42S02	CLSV42S01
EPA I.D. & DEPTH		RV799 5'	RV800 1'	RV801 11'	RV802 6'
LAB SAMPLE I.D.		M4-151-04	M4-151-05	M4-151-06	M4-151-07
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND U	ND U
cis-1,2-Dichloroethene	1.0	ND	ND	* 620	120
1,1-Dichloroethane	1.0	ND	ND	ND U	ND U
trans-1,2-Dichloroethene	1.0	ND	ND	7.1	1.4
Chloroform	1.0	ND	ND	ND U	ND U
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND U	ND U	ND U
Trichloroethene	1.0	ND	5.3	* 250	94
Toluene	1.0	ND	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	2.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 20	3.1 ~~ND~~ J -	4.5 ~~ND~~ J -	4.3 ~~ND~~ J -	4.3 ~~ND~~ J -

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	79	104	94	116
d-Chloroform	25	75-125	79	104	95	108
d-Benzene	25	75-125	82	105	91	107
Dibromofluoromethane	50	75-125	104	103	108	107
Toluene-d8	50	75-125	103	99	100	103
Bromofluorobenzene	50	75-125	115	112	112	112

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

* Value exceeds upper calibration range and is therefore an estimated value.

* reported from 10X dilution

KEC 4/6/01

LEVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/02/00	08/02/00			08/02/00			08/02/00		
ANALYTICAL BATCH		000802M4V221	000802M4V221			000802M4V221			000802M4V221		
DILUTION FACTOR		1	1			1			1		
CLIENT SAMPLE I.D.		NA	B1SV05S02			B1SV05S01			B1SV04S01		
EPA I.D. & DEPTH		NA	RV803 10'			RV804 5'			RV805 6'		
LAB SAMPLE I.D.		Blank	M4-152-01			M4-152-02			M4-152-03		
COMPOUND	RL		Rev Qual		Qual Code	Rev Qual		Qual Code	Rev Qual		Qual Code
Dichlorodifluoromethane	1.0	ND	ND U			ND UJ		S	ND U		
Vinyl Chloride	1.0	ND	ND U			ND ↓		S	ND U		
Chloroethane	1.0	ND	ND UJ		C	ND UJ		C,S	ND UJ		C
Trichlorofluoromethane	1.0	ND	ND U			ND		S	ND U		
1,1-Dichloroethene	1.0	ND	ND			ND			ND		
Methylene Chloride	1.0	ND	ND			ND			ND		
cis-1,2-Dichloroethene	1.0	ND	ND			ND			ND		
1,1-Dichloroethane	1.0	ND	ND			ND			ND		
trans-1,2-Dichloroethene	1.0	ND	ND			ND			ND		
Chloroform	1.0	ND	ND			ND			ND		
1,1,1-Trichloroethane	1.0	ND	ND			ND			ND		
Carbon Tetrachloride	1.0	ND	ND ↓			ND			ND ↓		
1,2-Dichloroethane	1.0	ND	ND U			ND			ND U		
Benzene	1.0	ND	**1.1**			ND			**1.0**		
Trichloroethene	1.0	ND	ND U			ND			ND U		
Toluene	1.0	ND	ND			ND			ND		
1,1,2-Trichloroethane	1.0	ND	ND ↓			ND ↓			ND		
Tetrachloroethene	1.0	ND	ND U			ND UJ			ND ↓		
Ethylbenzene	1.0	ND	**53**			**56 J**			**1.1**		
1,1,1,2-Tetrachloroethane	1.0	ND	ND U			ND UJ			ND U		
m,p-Xylenes	2.0	ND	**23**			**68 J**			**6.4**		
o-Xylene	1.0	ND	ND U			ND UJ		✓	**1.1**		
1,1,2,2-Tetrachloroethane	1.0	ND	ND U			ND ↓		S	ND U		
1,1,2-Trichloro-trifluoroethane	5.0 10	ND	2.4 ND J		-	2.1 ND J		-,S	2.3 ND J		-

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	50	75-125	105	97	65*	95
d-Chloroform	50	75-125	107	97	67*	98
d-Benzene	50	75-125	108	120	73*	102
Dibromofluoromethane	50	75-125	102	91	92	102
Toluene-d8	50	75-125	102	107	103	100
Bromofluorobenzene	50	75-125	112	94	106	122

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit, MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

***Some surrogate recoveries were outside the acceptance limits due to reproducible sample matrix effects**

Etc
4/6/01
EVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/02/00			08/02/00			08/02/00			08/02/00		
ANALYTICAL BATCH		000802M4V221			000802M4V221			000802M4V221			000802M4V221		
DILUTION FACTOR		1			1			1			1		
CLIENT SAMPLE I.D.		BHSV03S01			HSSV01S02			CLSV40S01			CLSV43S01		
EPA I.D. & DEPTH		RV806 4'			RV807 11.5'			RV808 2.5'			RV809 4'		
LAB SAMPLE I.D.		M4-152-04			M4-152-05			M4-152-06			M4-152-07		
COMPOUND	**RL**	Rev Qual	Qual Code		Rev Qual	Qual Code		Rev Qual	Qual Code		Rev Qual	Qual Code	
Dichlorodifluoromethane	1.0	ND U			ND U			ND U			ND U		
Vinyl Chloride	1.0	ND			ND			ND			ND		
Chloroethane	1.0	ND	J	C	ND	J	C	ND	J	C	ND	J	C
Trichlorofluoromethane	1.0	ND			ND			ND			ND		
1,1-Dichloroethene	1.0	ND			ND			ND			ND		
Methylene Chloride	1.0	ND			ND			ND			ND		
cis-1,2-Dichloroethene	1.0	ND			ND			ND			ND		
1,1-Dichloroethane	1.0	ND			ND			ND			ND		
trans-1,2-Dichloroethene	1.0	ND			ND			ND			ND		
Chloroform	1.0	ND			ND			ND			ND		
1,1,1-Trichloroethane	1.0	ND			ND			ND			ND		
Carbon Tetrachloride	1.0	ND			ND			ND			ND		
1,2-Dichloroethane	1.0	ND			ND			ND			ND		
Benzene	1.0	ND			ND			ND U			ND U		
Trichloroethene	1.0	ND			ND			28			1.8		
Toluene	1.0	ND			ND			ND U			ND U		
1,1,2-Trichloroethane	1.0	ND			ND			ND			ND		
Tetrachloroethene	1.0	ND			ND			ND			ND		
Ethylbenzene	1.0	ND			ND			ND			ND		
1,1,1,2-Tetrachloroethane	1.0	ND			ND			ND			ND		
m,p-Xylenes	2.0	ND			ND			ND			ND		
o-Xylene	1.0	ND			ND			ND			ND		
1,1,2,2-Tetrachloroethane	1.0	ND U			ND U			ND U			ND U		
1,1,2-Trichloro-trifluoroethane	5.010	2.4 ND J	-		4.7 ND J	-		3.3 ND J	-		4.0 ND J	-	

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	50	75-125	76	79	91	89
d-Chloroform	50	75-125	80	81	95	90
d-Benzene	50	75-125	85	84	99	94
Dibromofluoromethane	50	75-125	102	105	105	101
Toluene-d8	50	75-125	101	100	101	102
Bromofluorobenzene	50	75-125	110	113	112	114

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KEL
4/6/01

LEVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/02/00	08/02/00	08/02/00	08/02/00
ANALYTICAL BATCH		000802M4V221	000802M4V221	000802M4V221	000802M4V221
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV45S01	BASV13Q02	BASV13D02	CLSV37S01
EPA I.D. & DEPTH		RV810 6.5'	RV811 10'	RV812 10'	RV813 3'
LAB SAMPLE I.D.		M4-152-08	M4-152-09	M4-152-10	M4-152-11
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND UJ S	ND U	ND UJ S
Vinyl Chloride	1.0	ND U	ND	ND U	ND
Chloroethane	1.0	ND UJ C	ND C	ND UJ C	ND C
Trichlorofluoromethane	1.0	ND U	ND	ND U	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND U	ND	ND	ND
Trichloroethene	1.0	**4.0**	ND	ND	ND
Toluene	1.0	ND U	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	2.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND U	ND UJ S	ND U	ND UJ S
1,1,2-Trichloro-trifluoroethane	5.0 10	4.6 ~~ND~~ J -	5.3 ~~ND~~ J -,S	4.7 ~~ND~~ J -	5.2 ~~ND~~ J -,S

SURROGATE	SPK CONC	ACP%	%REC	%REC Pm 05/08/01	%REC Pm 5/9/01	%REC
d-Methylene Chloride	50	75-125	87	46 ~~105~~	122	68 ~~89~~
d-Chloroform	50	75-125	93	50 ~~101~~	118	73 ~~84~~
d-Benzene	50	75-125	99	55 ~~98~~	125	76 ~~85~~
Dibromofluoromethane	50	75-125	110	104 ~~100~~	102	105 ~~101~~
Toluene-d8	50	75-125	102	102 ~~103~~	101	105 ~~102~~
Bromofluorobenzene	50	75-125	110	110 ~~113~~	113	111 ~~112~~

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

REC
4/6/01

LEVEL 4

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/02/00		08/02/00		08/02/00		
ANALYTICAL BATCH		000802M4V221		000802M4V221		000802M4V221		
DILUTION FACTOR		1		1		1		
CLIENT SAMPLE I.D.		CLSV36		CLSV44S01		CLSV37D01		
EPA I.D. & DEPTH		RV814 1'		RV815 2'		RV816 3'		
LAB SAMPLE I.D.		M4-152-12		M4-152-13		M4-152-14		
COMPOUND	**RL**	Rev Qual	Qual Code	Rev Qual	Qual Code	Rev Qual	Qual Code	
Dichlorodifluoromethane	1.0	ND U		ND U		ND U		
Vinyl Chloride	1.0	ND U		ND U		ND U		
Chloroethane	1.0	ND UJ	C	ND UJ	C	ND UJ	C	
Trichlorofluoromethane	1.0	ND U		ND U		ND U		
1,1-Dichloroethene	1.0	ND		ND		ND		
Methylene Chloride	1.0	ND		ND		ND		
cis-1,2-Dichloroethene	1.0	ND		ND		ND		
1,1-Dichloroethane	1.0	ND		ND		ND		
trans-1,2-Dichloroethene	1.0	ND		ND		ND		
Chloroform	1.0	ND		ND		ND		
1,1,1-Trichloroethane	1.0	ND		ND		ND		
Carbon Tetrachloride	1.0	ND		ND		ND		
1,2-Dichloroethane	1.0	ND		ND		ND		
Benzene	1.0	ND		ND		ND		
Trichloroethene	1.0	ND		ND		ND		
Toluene	1.0	ND		ND		ND		
1,1,2-Trichloroethane	1.0	ND		ND		ND		
Tetrachloroethene	1.0	ND		ND		ND		
Ethylbenzene	1.0	ND		ND		ND		
1,1,1,2-Tetrachloroethane	1.0	ND		ND		ND		
m,p-Xylenes	2.0	ND		ND		ND		
o-Xylene	1.0	ND ↓		ND ↓		ND ↓		
1,1,2,2-Tetrachloroethane	1.0	ND U		ND U		ND U		
1,1,2-Trichloro-trifluoroethane	5.0 10	5.3 ~~ND~~	-	4.2 ~~ND~~ J	-	4.2 ~~ND~~ J	-	

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	
d-Methylene Chloride	50	75-125	77	91	121	
d-Chloroform	50	75-125	76	87	121	
d-Benzene	50	75-125	82	91	124	
Dibromofluoromethane	50	75-125	102	102	104	
Toluene-d8	50	75-125	101	102	103	
Bromofluorobenzene	50	75-125	111	111	110	

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KEC 4/6/01

LEVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED			08/03/00	08/03/00		08/03/00		
ANALYTICAL BATCH			000803M4V222	000803M4V222		000803M4V222		
DILUTION FACTOR			1	1		1		
CLIENT SAMPLE I.D.			NA	CLSV39S01		CLSV38S02		
EPA I.D. & DEPTH			NA	RV817 6'		RV818 11'		
LAB SAMPLE I.D.			Blank	M4-153-01		M4-153-02		
COMPOUND	**RL**			Rev Qual	Qual Code	Rev Qual	Qual Code	
Dichlorodifluoromethane	1.0		ND	ND UJ	C	ND UJ	C	
Vinyl Chloride	1.0		ND	ND U		ND U		
Chloroethane	1.0		ND	ND		ND		
Trichlorofluoromethane	1.0		ND	ND		ND		
1,1-Dichloroethene	1.0		ND	ND		ND		
Methylene Chloride	1.0		ND	ND		ND		
cis-1,2-Dichloroethene	1.0		ND	ND		ND		
1,1-Dichloroethane	1.0		ND	ND		ND		
trans-1,2-Dichloroethene	1.0		ND	ND		ND		
Chloroform	1.0		ND	ND		ND		
1,1,1-Trichloroethane	1.0		ND	ND		ND		
Carbon Tetrachloride	1.0		ND	ND		ND		
1,2-Dichloroethane	1.0		ND	ND		ND		
Benzene	1.0		ND	ND		ND		
Trichloroethene	1.0		ND	ND		ND		
Toluene	1.0		ND	ND		ND		
1,1,2-Trichloroethane	1.0		ND	ND U		ND U		
Tetrachloroethene	1.0		ND	ND UJ	C	ND UJ	C	
Ethylbenzene	1.0		ND	ND U		ND U		
1,1,1,2-Tetrachloroethane	1.0		ND	ND		ND		
m,p-Xylenes	2.0		ND	ND		ND		
o-Xylene	1.0		ND	ND		ND		
1,1,2,2-Tetrachloroethane	1.0		ND	ND		ND		
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 10		ND	3.7 ~~ND~~ J	-	3.6 ~~ND~~ J	-	
SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**		**%REC**		
d-Methylene Chloride	50	75-125	90	76		108		
d-Chloroform	50	75-125	86	75		99		
d-Benzene	50	75-125	89	83		121		
Dibromofluoromethane	50	75-125	103	101		103		
Toluene-d8	50	75-125	103	105		103		
Bromofluorobenzene	50	75-125	111	110		112		

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KEC
4/6/01

LEVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/04/00	08/04/00	08/04/00	08/04/00
ANALYTICAL BATCH		000804M4V223	000804M4V223	000804M4V223	000804M4V223
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		NA	SRSV02S02	SRSV02S01	SRSV03S01
EPA I.D. & DEPTH		NA	RV819 12'	RV820 7'	RV821 6'
LAB SAMPLE I.D.		Blank	M4-154-01	M4-154-02	M4-154-03
COMPOUND	RL		Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND	ND UJ c	ND UJ c	ND UJ c
Vinyl Chloride	1.0	ND	ND U	ND U	ND U
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND U	ND U	ND U
Tetrachloroethene	1.0	ND	ND UJ c	ND UJ c	ND UJ c
Ethylbenzene	1.0	ND	ND U	ND U	ND U
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	2.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 10	ND	2.3 ~~ND~~ J -	2.0 ~~ND~~ J -	2.3 ~~ND~~ J -

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	50	75-125	84	148*	123	83
d-Chloroform	50	75-125	84	131*	117	81
d-Benzene	50	75-125	96	162*	125	93
Dibromofluoromethane	50	75-125	101	102	104	102
Toluene-d8	50	75-125	105	103	103	104
Bromofluorobenzene	50	75-125	112	111	110	114

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit, MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

***Some surrogate recoveries were outside the acceptance limits due to reproducible sample matrix effects.**

REC 4/6/01

LEVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/04/00	08/04/00	08/04/00	08/04/00
ANALYTICAL BATCH		000804M4V223	000804M4V223	000804M4V223	000804M4V223
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		SRSV01S01	SRSV04S01	SRSV06S01	SRSV07S01
EPA I.D. & DEPTH		RV822 6.5'	RV823 4'	RV824 2'	RV825 2.5'
LAB SAMPLE I.D.		M4-154-04	M4-154-05	M4-154-06	M4-154-07
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Vinyl Chloride	1.0	ND U	ND U	ND U	ND U
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND U	ND U	ND U	ND U
Tetrachloroethene	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Ethylbenzene	1.0	ND U	ND U	ND U	ND U
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	2.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND
1,1,2-Trichloro-trifluoroethane	5.0 10	2.2 ~~ND~~ J -	3.8 ~~ND~~ J -	3.9 ~~ND~~ J -	3.5 ND J -

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	50	75-125	77	112	111	100
d-Chloroform	50	75-125	75	108	94	80
d-Benzene	50	75-125	86	122	116	92
Dibromofluoromethane	50	75-125	104	102	101	99
Toluene-d8	50	75-125	103	102	105	105
Bromofluorobenzene	50	75-125	114	113	111	112

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KLC
4/6/01

LEVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/04/00	08/04/00	08/04/00	08/04/00
ANALYTICAL BATCH		000804M4V223	000804M4V223	000804M4V223	000804M4V223
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		B8SV01S01	CLSV38S03	CLSV46S03	CLSV46S01
EPA I.D. & DEPTH		RV826 2'	RV827 16'	RV828 15'	RV829 5'
LAB SAMPLE I.D.		M4-154-08	M4-154-09	M4-154-10	M4-154-11
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND UJ C	ND UJ C,S	ND UJ C	ND UJ C
Vinyl Chloride	1.0	ND U	ND S	3.4	ND U
Chloroethane	1.0	ND	ND	ND U	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND U	ND S	ND U	ND U
Tetrachloroethene	1.0	ND UJ C	ND UJ C,S	ND UJ C	ND UJ C
Ethylbenzene	1.0	ND U	ND S	ND U	ND U
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	2.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND UJ S	ND	ND
1,1,2-Trichloro-trifluoroethane	5.0 10	3.1 ND J -	3.7 ND J -,S	4.0 ND J -	3.6 ND J -

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	50	75-125	88	67**	86	76
d-Chloroform	50	75-125	75	66**	84	76
d-Benzene	50	75-125	92	84	96	89
Dibromofluoromethane	50	75-125	98	100	102	101
Toluene-d8	50	75-125	103	106	106	104
Bromofluorobenzene	50	75-125	113	113	113	112

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit, MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

****Confirmation by re-analysis was not possible due to expired hold time; initial results were reported.**

KEC 4/6/01

LEVEL V

Centrum
(800) 798-9336

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		08/04/00	08/04/00	08/04/00	08/04/00
ANALYTICAL BATCH		000804M4V223	000804M4V223	000804M4V223	000804M4V223
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV46S02	CLSV47S03	CLSV47S02	CLSV47S01
EPA I.D. & DEPTH		RV830 10'	RV831 15'	RV832 10'	RV833 5'
LAB SAMPLE I.D.		M4-154-12	M4-154-13	M4-154-14	M4-154-15
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND UJ / C	ND UJ / C	ND UJ / C	ND UJ / C
Vinyl Chloride	1.0	2.0	ND U	ND U	ND U
Chloroethane	1.0	ND U	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND ↓	ND ↓	ND ↓	ND ↓
1,1,2-Trichloroethane	1.0	ND U	ND U	ND U	ND U
Tetrachloroethene	1.0	ND UJ / C	ND UJ / C	ND UJ / C	ND UJ / C
Ethylbenzene	1.0	ND U	ND U	ND U	ND U
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	2.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND ↓	ND ↓	ND ↓	ND ↓
1,1,2-Trichloro-trifluoroethane	5.0 10	3.9 ~~ND~~ J / -	3.9 ~~ND~~ J / -	3.8 ~~ND~~ J / -	3.9 ~~ND~~ J / -,S

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	50	75-125	100	87	90	131**
d-Chloroform	50	75-125	97	87	106	123
d-Benzene	50	75-125	118	103	78	151**
Dibromofluoromethane	50	75-125	99	99	103	101
Toluene-d8	50	75-125	102	103	102	105
Bromofluorobenzene	50	75-125	114	114	113	112

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

****Confirmation by re-analysis was not possible due to expired hold time; initial results were reported.**

KEC
4/6/01

LEVEL V

OGDEN ENVIRONMENTAL AND ENERGY SERVICES
550 South Wadsworth Blvd., Suite 500, Lakewood, CO 80226
303/935-6505, Fax 303/935-6575

DATA ASSESSMENT FORM

Project Title: Rocketdyne SSFL RFI
QC Level: V[1]
SDG: 31
Matrix: Soil Vapor
No. of Samples: 95
No. Renalyses/Dilutions: 0
Date Reviewed: April 24, 2001
Reviewer: K. Chapman
Reference: *USEPA Contract Laboratory Program National Functional Guidelines For Organic Data Review, (Feb. 1994)*, and Interim Guidance For Active Soil Gas Investigation, State of California Regional Water Quality Control Board (LA Region).

EPA Level V – Volatiles Assessment

Data Validation Findings

	Problems	Qualifications
1. Sample Management	There were instances on the COC of uninitialed corrections to the information.	No qualifications were required as field logs were reviewed to verify the accuracy of the undocumented corrections. Field personnel reviewing the accuracy of the field logs initialed and dated the COCs.
4 Method Blanks	No problems were noted with the method blanks. Seven method blanks were analyzed with this SDG. No target compounds were detected in the method blanks.	No qualifications were required.
6 Surrogates	No surrogate deficiencies were noted.	No qualifications were required.

	Problems	Qualifications
7. Calibration	The calibration verification standard analyzed with samples RV931-RV949 exhibited %D outliers for methylene chloride, 1,2-dichloroethene, and 1,1,2,2-tetrachloroethane.	Samples RV931-RV949 were qualified as estimated, "UJ" for the noted compounds.
	The calibration verification standard analyzed with samples RV901-RV911 exhibited a %D outlier for 1,1,2,2-tetrachloroethane.	Samples RV901-RV911 were qualified as estimated, "UJ" for the noted compound.
	The calibration verification standard analyzed with samples RV912-RV930 exhibited %D outliers for carbon tetrachloride, 1,1,2-trichloroethane, and 1,1,2,2-tetrachloroethane.	Samples RV912-RV930 were qualified as estimated, "UJ" for the noted compounds.
	The calibration verification standard analyzed with samples RV950-RV957, and RV961-RV968 exhibited %D outliers for vinyl chloride and chloroethane.	Samples RV950-RV957, and RV961-RV968 were qualified as estimated, "UJ" for the noted compounds.
	The calibration verification standard analyzed with samples RV969, RV971-RV973, RV967, and RV974-RV982 exhibited a %D outlier for chloroethane.	Samples RV969, RV971-RV973, RV967, and RV974-RV982 were qualified as estimated, "UJ" for the noted compound.
10. Other	According to the laboratory, the reporting limit of 1.0 ppb on the Form Is for 1,1,2-trichloro-trifluoroethane is incorrect. This reporting limit should be 5.0 ppb. The reviewer hand-corrected the Form Is to reflect the correct reporting limit. As the laboratory MDL study does support a reporting limit of 1.0 ppb, detects between 1.0 ppb and 5.0 ppb were reported as estimated values.	Detects below 5.0 ppb reported for samples RV908, RV919, RV938, RV941, and RV942 were qualified as estimated "J."
	Samples RV986, RV987, RV989, RV990, RV991, and RV992 were reported from 5× dilutions.	The reporting limits for these samples were changed on the Form Is to reflect the dilutions. These detects were qualified as estimated, "J."
	Detects for trichloroethane in samples RV950, RV951, RV952, RV977, and RV980, 1,1,2-trichloro-trifluoroethane in samples RV951 and RV952, and 1,1,1-trichloroethane in samples RV955 and RV956 were reported at concentrations above the linear range of the calibration.	

	Problems	Qualifications
Comments	None.	

[1] A modified level V validation was performed, reviewing only the sample management, surrogate, blank, and calibration data. The blank and surrogate qualifications are based solely upon summary information, unless otherwise noted. The reported values on the summary forms are presumed to be correct and no verification of the values from the raw instrument output is performed.

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/13/00	12/13/00	12/13/00	12/13/00
ANALYTICAL BATCH		001213M4V315	001213M4V315	001213M4V315	001213M4V315
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		NA	CLSV49/S03	CLSV49/S02	CLSV49/S01
EPA I.D. & DEPTH		NA	RV901 15'	RV902 10'	RV903 5'
LAB SAMPLE I.D.		Blank	M4-199-01	M4-199-02	M4-199-03
COMPOUND	RL		Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND J	ND J	ND J
o-Xylene	1.0	ND	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND	ND U #	ND U #	ND U #

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	88	90	92	84
d-Chloroform	25	75-125	83	88	87	78
d-Benzene	25	75-125	115	119	118	107
Dibromofluoromethane	50	75-125	94	94	95	96
Toluene-d8	50	75-125	97	95	97	97
Bromofluorobenzene	50	75-125	103	99	102	102

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

REC 4/6/01

LEVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/13/00	12/13/00	12/13/00	12/13/00
ANALYTICAL BATCH		001213M4V315	001213M4V315	001213M4V315	001213M4V315
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV49/D01	CLSV49/S05	CLSV49/S04	CLSV49/F01
EPA I.D. & DEPTH		RV904 5'	RV905 25'	RV906 20'	RV907
LAB SAMPLE I.D.		M4-199-04	M4-199-05	M4-199-06	M4-199-07
COMPOUND	RL	Raw Qual / Dilution Factor	Raw Qual / Dilution Factor	Raw Qual / Dilution Factor	Raw Qual / Dilution Factor
Dichlorodifluoromethane	1.0	ND u	ND u	ND u	ND u
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND u	ND u	ND u	ND u
o-Xylene	1.0	ND u	ND u	ND u	ND u
1,1,2,2-Tetrachloroethane	1.0	ND u c	ND u c	ND u c	ND u c
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND u f	ND u f	ND u f	ND u f

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	88	91	88	87
d-Chloroform	25	75-125	83	86	84	81
d-Benzene	25	75-125	113	118	114	109
Dibromofluoromethane	50	75-125	96	96	94	98
Toluene-d8	50	75-125	99	96	99	97
Bromofluorobenzene	50	75-125	104	103	102	104

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

Rec 4/6/01

LEVEL V

GOLDEN VALIDA

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/13/00	12/13/00	12/13/00	12/13/00
ANALYTICAL BATCH		001213M4V315	001213M4V315	001213M4V315	001213M4V315
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		LFSV14/S01	LFSV14/S02	LFSV14/S03	LFSV18/S01
EPA I.D. & DEPTH		RV908 5'	RV909 10'	RV910 15'	RV911 5'
LAB SAMPLE I.D.		M4-199-08	M4-199-09	M4-199-10	M4-199-11
COMPOUND	**RL**	Raw Qual / Qual Code	Raw Qual / Qual Code	Raw Qual / Qual Code	Raw Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND U	ND U	ND U	ND
Trichloroethene	1.0	**1.9**	**16**	**38**	ND
Toluene	1.0	ND U	ND U	ND U	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	5.0 1.0	**1.1** J	**6.3**	**14**	ND U

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	87	104	98	93
d-Chloroform	25	75-125	82	92	93	87
d-Benzene	25	75-125	112	124	123	116
Dibromofluoromethane	50	75-125	96	94	97	98
Toluene-d8	50	75-125	97	96	97	96
Bromofluorobenzene	50	75-125	102	103	101	103

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KEC 4/6/01

LEVEL V

OGDEN VAL...

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/14/00	12/14/00	12/14/00	12/14/00
ANALYTICAL BATCH		001214M4V316	001214M4V316	001214M4V316	001214M4V316
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		NA	CLSV57/S01	CLSV57/S02	CLSV57/D02
EPA I.D. & DEPTH		NA	RV912 3'	RV913 7'	RV914 7'
LAB SAMPLE I.D.		Blank	M4-200-01	M4-200-02	M4-200-03
COMPOUND	RL		Raw Qual / Final Qual	Raw Qual / Final Qual	Raw Qual / Final Qual
Dichlorodifluoromethane	1.0	ND	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND ↓	ND ↓	ND ↓
1,1,1-Trichloroethane	1.0	ND	ND U	ND U	ND U
Carbon Tetrachloride	1.0	ND	ND UJ C	ND UJ C	ND UJ C
1,2-Dichloroethane	1.0	ND	ND U	ND U	ND U
Benzene	1.0	ND	ND ↓	ND ↓	ND ↓
Trichloroethene	1.0	ND	**2.1**	**8.7**	**8.1**
Toluene	1.0	ND	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloroethane	1.0	ND	ND UJ C	ND UJ C	ND UJ C
Tetrachloroethene	1.0	ND	ND U	ND U	ND U
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND ↓	ND ↓	ND ↓
o-Xylene	1.0	ND	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND	ND U #	ND U #	ND U #

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	106	99	107	108
d-Chloroform	25	75-125	105	101	108	107
d-Benzene	25	75-125	92	87	96	94
Dibromofluoromethane	50	75-125	94	84	94	95
Toluene-d8	50	75-125	97	98	96	98
Bromofluorobenzene	50	75-125	103	103	102	103

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

Rec 4/6/01

LEVEL V

OGDEN

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/14/00	12/14/00	12/14/00	12/14/00
ANALYTICAL BATCH		001214M4V316	001214M4V316	001214M4V316	001214M4V316
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV58/S01	CLSV59/S01	CLSV59/S03	CLSV59/S02
EPA I.D. & DEPTH		RV915 1.5'	RV916 5'	RV917 15'	RV918 10'
LAB SAMPLE I.D.		M4-200-04	M4-200-05	M4-200-06	M4-200-07
COMPOUND	**RL**	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND U	ND U	ND U
cis-1,2-Dichloroethene	1.0	ND	**1.0**	**5.0**	**3.6**
1,1-Dichloroethane	1.0	ND	ND U	ND U	ND U
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND U	ND U	ND U	ND U
Carbon Tetrachloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,2-Dichloroethane	1.0	ND U	ND U	ND U	ND U
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	**3.2**	**14**	**9.6**
Toluene	1.0	ND	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Tetrachloroethene	1.0	ND U	ND U	ND U	ND U
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	5010	ND U	ND U	ND U	ND U

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	110	104	123	120
d-Chloroform	25	75-125	109	104	122	114
d-Benzene	25	75-125	97	93	108	102
Dibromofluoromethane	50	75-125	96	96	96	94
Toluene-d8	50	75-125	98	97	99	101
Bromofluorobenzene	50	75-125	104	106	105	104

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

REC 4/6/01

LEVEL ... OGDEN ...

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/14/00	12/14/00	12/14/00	12/14/00
ANALYTICAL BATCH		001214M4V316	001214M4V316	001214M4V316	001214M4V316
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV56/S01	CLSV61/S01	CLSV54/S01	CLSV54/S02
EPA I.D. & DEPTH		RV919 3'	RV920 5'	RV921 5'	RV922 11'
LAB SAMPLE I.D.		M4-200-08	M4-200-09	M4-200-10	M4-200-11
COMPOUND	RL	Raw Qual / Qual Code	Raw Qual / Qual Code	Raw Qual / Qual Code	Raw Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	**3.4**
Chloroethane	1.0	ND	ND	ND	ND U
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND U	ND U	ND U
cis-1,2-Dichloroethene	1.0	ND	**1.6**	**6.1**	**2.0**
1,1-Dichloroethane	1.0	ND	ND U	ND U	ND U
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND U	ND U	ND U	ND U
Carbon Tetrachloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,2-Dichloroethane	1.0	ND U	ND U	ND U	ND U
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	**12**	ND	ND	ND
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Tetrachloroethene	1.0	ND U	ND U	ND U	ND U
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	**1.1** J	ND U J	ND U J	ND U J

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	120	113	123	120
d-Chloroform	25	75-125	116	108	118	117
d-Benzene	25	75-125	105	96	104	104
Dibromofluoromethane	50	75-125	93	95	96	93
Toluene-d8	50	75-125	97	98	99	97
Bromofluorobenzene	50	75-125	103	105	104	104

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

REC 4/6/01

LEVEL II

OGDEN ENVIRONMENTAL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/14/00	12/14/00	12/14/00	12/14/00
ANALYTICAL BATCH		001214M4V316	001214M4V316	001214M4V316	001214M4V316
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV55/S01	CLSV53/S01	CLSV52/S01	CLSV38/S01
EPA I.D. & DEPTH		RV923 5'	RV924 1.5'	RV925 4.5'	RV926 6'
LAB SAMPLE I.D.		M4-200-12	M4-200-13	M4-200-14	M4-200-15
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND ↓	ND ↓	ND ↓	ND ↓
1,1,1-Trichloroethane	1.0	ND U	ND U	ND U	ND U
Carbon Tetrachloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,2-Dichloroethane	1.0	ND U	ND U	ND U	ND U
Benzene	1.0	ND	ND ↓	ND	ND
Trichloroethene	1.0	ND ↓	**2.0**	ND ↓	ND ↓
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Tetrachloroethene	1.0	ND U	ND U	ND U	ND U
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND ↓	ND ↓	ND ↓	ND ↓
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	5.0 1.0	ND U	ND U	ND U	ND U

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	113	102	81	87
d-Chloroform	25	75-125	115	105	81	86
d-Benzene	25	75-125	104	96	81	75
Dibromofluoromethane	50	75-125	95	94	100	94
Toluene-d8	50	75-125	99	97	99	101
Bromofluorobenzene	50	75-125	105	105	104	106

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

Kec 4/6/01

LEVEL

OGDEN VA

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/14/00	12/14/00	12/14/00	12/14/00
ANALYTICAL BATCH		001214M4V316	001214M4V316	001214M4V316	001214M4V316
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV39/S03	CLSV51/S01	CLSV48/S02	CLSV48/S01
EPA I.D. & DEPTH		RV927 16'	RV928 1.5'	RV929 8'	RV930 3'
LAB SAMPLE I.D.		M4-200-16	M4-200-17	M4-200-18	M4-200-19
COMPOUND	RL	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND U	ND U	ND U	ND U
1,1,1-Trichloroethane	1.0	ND U	ND U	ND U	ND U
Carbon Tetrachloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,2-Dichloroethane	1.0	ND U	ND U	ND U	ND U
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND U	ND U	ND U	ND U
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Tetrachloroethene	1.0	ND U	ND U	ND U	ND U
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND U	ND U	ND U	ND U
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	5.0 1.0	ND U	ND U	ND U	ND U

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	110	97	90	102
d-Chloroform	25	75-125	109	94	89	102
d-Benzene	25	75-125	96	82	77	90
Dibromofluoromethane	50	75-125	96	97	97	96
Toluene-d8	50	75-125	99	99	98	97
Bromofluorobenzene	50	75-125	106	106	105	104

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KG 4/6/01

LEVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/15/00	12/15/00	12/15/00	12/15/00
ANALYTICAL BATCH		001215M4V317	001215M4V317	001215M4V317	001215M4V317
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		NA	CLSV48/F01	CLSV48/S03	CLSV48/D03
EPA I.D. & DEPTH		NA	RV931 0'	RV932 13'	RV933 13'
LAB SAMPLE I.D.		Blank	M4-201-01	M4-201-02	M4-201-03
COMPOUND	RL		Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND U	ND U	ND U
Methylene Chloride	1.0	ND	ND U J C	ND U J C	ND U J C
cis-1,2-Dichloroethene	1.0	ND	ND U	ND U	ND U
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND U	ND U	ND U
1,2-Dichloroethane	1.0	ND	ND U J C	ND U J C	ND U J C
Benzene	1.0	ND	ND U	ND U	ND U
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND	ND U J C	ND U J C	ND U J C
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND	ND U	ND U	ND U

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	97	98	104	110
d-Chloroform	25	75-125	116	84	91	95
d-Benzene	25	75-125	110	125	116	122
Dibromofluoromethane	50	75-125	95	95	94	95
Toluene-d8	50	75-125	99	99	99	99
Bromofluorobenzene	50	75-125	108	107	110	108

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

EEC 4/6/01

LEVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/15/00	12/15/00	12/15/00	12/15/00
ANALYTICAL BATCH		001215M4V317	001215M4V317	001215M4V317	001215M4V317
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		CLSV48/S04	CLSV50/S01	CLSV50/S02	CLSV50/S03
EPA I.D. & DEPTH		RV934 18'	RV935 5'	RV936 10'	RV937 16'
LAB SAMPLE I.D.		M4-201-04	M4-201-05	M4-201-06	M4-201-07
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND V	ND V	ND V	ND V
1,1-Dichloroethene	1.0	ND U	ND U	ND U	ND U
Methylene Chloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
cis-1,2-Dichloroethene	1.0	ND U	ND U	ND U	ND U
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND V	ND V	ND V	ND V
Carbon Tetrachloride	1.0	ND U	ND U	ND U	ND U
1,2-Dichloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Benzene	1.0	ND U	ND U	ND U	ND U
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND V	ND V	ND V	ND V
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	5.0 1.0	ND U #	ND U #	ND U #	ND U #

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	103	105	94	114
d-Chloroform	25	75-125	90	94	82	100
d-Benzene	25	75-125	114	120	118	121
Dibromofluoromethane	50	75-125	96	95	94	94
Toluene-d8	50	75-125	100	99	100	101
Bromofluorobenzene	50	75-125	110	106	107	107

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KCA 4/6/01

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/15/00	12/15/00	12/15/00	12/15/00
ANALYTICAL BATCH		001215M4V317	001215M4V317	001215M4V317	001215M4V317
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		LFSV16/S02	LFSV16/S03	LFSV16/S04	LFSV16/S01
EPA I.D. & DEPTH		RV938 10'	RV939 15'	RV940 20'	RV941 5'
LAB SAMPLE I.D.		M4-201-08	M4-201-09	M4-201-10	M4-201-11
COMPOUND	RL	Raw Qual / Final Qual Code	Raw Qual / Final Qual Code	Raw Qual / Final Qual Code	Raw Qual / Final Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND U	**1.2**	**1.8**	ND U
Methylene Chloride	1.0	ND U,J C	ND U,J C	ND U,J C	ND U,J C
cis-1,2-Dichloroethene	1.0	**2.1**	**4.9**	**7.8**	ND U
1,1-Dichloroethane	1.0	ND U	ND U	ND U	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND U,J C	ND U,J C	ND U,J C	ND U,J C
Benzene	1.0	ND U	ND U	ND U	ND U
Trichloroethene	1.0	**170**	**370*** J	**270** J	**45**
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND U,J C	ND U,J C	ND U,J C	ND U,J C
Tetrachloroethene	1.0	ND U	ND U	ND U	ND U
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND U,J C	ND U,J C	ND U,J C	ND U,J C
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	**4.0** J	**7.9**	**11**	**1.2** J

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	91	86	83	82
d-Chloroform	25	75-125	82	77	99	99
d-Benzene	25	75-125	120	111	91	90
Dibromofluoromethane	50	75-125	95	95	97	98
Toluene-d8	50	75-125	99	99	98	99
Bromofluorobenzene	50	75-125	109	108	107	109

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

*This concentration is an estimated value; see Case Narrative.

KTC
4/16/01

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/15/00	12/15/00	12/15/00	12/15/00
ANALYTICAL BATCH		001215M4V317	001215M4V317	001215M4V317	001215M4V317
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		LFSV15/S02	LFSV15/S03	LFSV15/S01	LFSV06/S03
EPA I.D. & DEPTH		RV942 8'	RV943 13'	RV944 3'	RV945 15'
LAB SAMPLE I.D.		M4-201-12	M4-201-13	M4-201-14	M4-201-15
COMPOUND	RL	Rev Qual / Orig Qual	Rev Qual / Orig Qual	Rev Qual / Orig Qual	Rev Qual / Orig Qual
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND U	ND U	ND U	ND U
Methylene Chloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
cis-1,2-Dichloroethene	1.0	ND U	2.2	ND U	ND U
1,1-Dichloroethane	1.0	ND	ND U	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND U	ND U	ND U	ND U
1,2-Dichloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Benzene	1.0	ND U	ND U	ND U	ND U
Trichloroethene	1.0	52	220	2.5	1.6
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	2.9 J	11	ND U	8.4

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	86	86	82	87
d-Chloroform	25	75-125	77	78	75	78
d-Benzene	25	75-125	112	115	106	110
Dibromofluoromethane	50	75-125	96	96	97	103
Toluene-d8	50	75-125	98	98	98	99
Bromofluorobenzene	50	75-125	106	108	106	105

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

Rec 4/4/01

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/15/00	12/15/00	12/15/00	12/15/00
ANALYTICAL BATCH		001215M4V317	001215M4V317	001215M4V317	001215M4V317
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		LFSV06/S01	CLSV42/S01	ILSV53/S01	EVSV13/S01
EPA I.D. & DEPTH		RV946 5'	RV947 6'	RV948 5'	RV949 5'
LAB SAMPLE I.D.		M4-201-16	M4-201-17	M4-201-18	M4-201-19
COMPOUND	RL	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND U	ND
1,1-Dichloroethene	1.0	ND U	ND U	**6.6**	ND U
Methylene Chloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
cis-1,2-Dichloroethene	1.0	ND U	**230** J	ND U	ND U
1,1-Dichloroethane	1.0	ND	ND U	ND	ND
trans-1,2-Dichloroethene	1.0	ND	**2.4**	ND	ND
Chloroform	1.0	ND	ND U	ND U	ND
1,1,1-Trichloroethane	1.0	ND	ND	**2.7**	ND
Carbon Tetrachloride	1.0	ND U	ND	ND U	ND U
1,2-Dichloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Benzene	1.0	ND U	ND U	ND U	ND U
Trichloroethene	1.0	ND	**170**	**18**	**40**
Toluene	1.0	ND	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND U	ND U	ND U	ND U
1,1,2,2-Tetrachloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
1,1,2-Trichloro-trifluoroethane	5.0 1.0	ND U	ND U	**13**	ND U

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	87	86	85	86
d-Chloroform	25	75-125	80	79	77	78
d-Benzene	25	75-125	115	111	111	110
Dibromofluoromethane	50	75-125	97	95	97	96
Toluene-d8	50	75-125	99	98	99	99
Bromofluorobenzene	50	75-125	107	103	105	106

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

RCL 4/6/01

EVEL V

OGDEN VALLEY

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/18/00	12/18/00	12/18/00	12/18/00
ANALYTICAL BATCH		001218M4V319	001218M4V319	001218M4V319	001218M4V319
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		NA	ILSV72/S01	ILSV72/S02	ILSV72/S03
EPA I.D. & DEPTH		NA	RV950 6'	RV951 10'	RV952 15'
LAB SAMPLE I.D.		Blank	M4-202-01	M4-202-02	M4-202-03
COMPOUND	RL		Low Conc / Conc	Low Conc / Conc	Low Conc / Conc
Dichlorodifluoromethane	1.0	ND	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND UJ C	ND UJ C	ND UJ C
Chloroethane	1.0	ND	ND ↓ ↓	ND ↓ ↓	ND ↓ ↓
Trichlorofluoromethane	1.0	ND	ND U	ND U	ND U
1,1-Dichloroethene	1.0	ND	**97**	**120**	**150**
Methylene Chloride	1.0	ND	ND U	ND U	ND U
cis-1,2-Dichloroethene	1.0	ND	ND ↓	ND ↓	ND ↓
1,1-Dichloroethane	1.0	ND	ND ↓	ND ↓	ND ↓
trans-1,2-Dichloroethene	1.0	ND	ND ↓	ND ↓	ND ↓
Chloroform	1.0	ND	ND U	ND U	ND U
1,1,1-Trichloroethane	1.0	ND	**14**	**16**	**20**
Carbon Tetrachloride	1.0	ND	ND U	ND U	ND U
1,2-Dichloroethane	1.0	ND	ND ↓	ND ↓	ND ↓
Benzene	1.0	ND	ND ↓	ND ↓	ND ↓
Trichloroethene	1.0	ND	**280** J X10	**330*** J X10	**410*** J X10
Toluene	1.0	ND	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND ↓	ND ↓	ND U
Tetrachloroethene	1.0	ND	ND ↓	ND ↓	**1.0**
Ethylbenzene	1.0	ND	ND ↓	ND ↓	ND U
1,1,1,2-Tetrachloroethane	1.0	ND	ND ↓	ND ↓	ND ↓
m,p-Xylenes	1.0	ND	ND ↓	ND ↓	ND ↓
o-Xylene	1.0	ND	ND ↓	ND ↓	ND ↓
1,1,2,2-Tetrachloroethane	1.0	ND	ND U	ND U	ND U
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND	**170**	**220** J X10	**310*** J X10

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	119	108	118	115
d-Chloroform	25	75-125	121	109	116	118
d-Benzene	25	75-125	121	111	116	119
Dibromofluoromethane	50	75-125	96	95	97	96
Toluene-d8	50	75-125	101	103	102	100
Bromofluorobenzene	50	75-125	103	100	103	100

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

*This concentration is an estimated value; see Case Narrative.

KEC 4/6/01

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/18/00	12/18/00	12/18/00	12/18/00
ANALYTICAL BATCH		001218M4V319	001218M4V319	001218M4V319	001218M4V319
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		ILSV71/S01	ILSV71/D01	ILSV70/S01	ILSV70/S02
EPA I.D. & DEPTH		RV953 5'	RV954 5'	RV955 5'	RV956 9'
LAB SAMPLE I.D.		M4-202-04	M4-202-05	M4-202-06	M4-202-07
COMPOUND	**RL**	Raw Qual / Final Qual / Code	Raw Qual / Final Qual / Code	Raw Qual / Final Qual / Code	Raw Qual / Final Qual / Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND UJ c	ND UJ c	ND UJ c	ND UJ c
Chloroethane	1.0	ND ↓ ↓	ND ↓ ↓	ND ↓ ↓	ND ↓ ↓
Trichlorofluoromethane	1.0	ND U	ND U	ND U	ND U
1,1-Dichloroethene	1.0	ND	ND	**100**	**97**
Methylene Chloride	1.0	ND	ND	ND U	ND U
cis-1,2-Dichloroethene	1.0	ND	ND	ND U	ND U
1,1-Dichloroethane	1.0	ND	ND	**1.7**	**1.8**
trans-1,2-Dichloroethene	1.0	ND	ND	ND U	ND U
Chloroform	1.0	ND	ND	ND U	ND U
1,1,1-Trichloroethane	1.0	ND	ND	**700*** J	**730*** J
Carbon Tetrachloride	1.0	ND	ND	ND U	ND U
1,2-Dichloroethane	1.0	ND ↓	ND	ND ↓	ND
Benzene	1.0	ND U	ND	ND U	ND U
Trichloroethene	1.0	**2.5**	ND	**180**	**200**
Toluene	1.0	ND U	ND	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND ↓	ND ↓
1,1,2,2-Tetrachloroethane	1.0	ND ↓	ND ↓	ND U	ND U
1,1,2-Trichloro-trifluoroethane	1.0	ND U ↓	ND U ↓	**100**	**110**

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	100	116	97	90
d-Chloroform	25	75-125	100	115	98	91
d-Benzene	25	75-125	103	115	97	93
Dibromofluoromethane	50	75-125	96	96	96	96
Toluene-d8	50	75-125	101	101	103	100
Bromofluorobenzene	50	75-125	102	103	103	104

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

*This concentration is an estimated value; see Case Narrative.

KEC 4/6/01

LEVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/18/00	12/18/00	12/18/00	12/18/00
ANALYTICAL BATCH		001218M4V319	001218M4V319	001218M4V319	001218M4V319
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		ILSV70/F01	LFSV17/S03	LFSV17/S04	LFSV17/S01
EPA I.D. & DEPTH		RV957	RV961 13'	RV962 18'	RV963 3'
LAB SAMPLE I.D.		M4-202-08	M4-202-09	M4-202-10	M4-202-11
COMPOUND	**RL**	Raw Qual / Qual Code	Raw Qual / Qual Code	Raw Qual / Qual Code	Raw Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND UJ C	ND UJ C	ND UJ C	ND UJ C
Chloroethane	1.0	ND ↓ ↓	ND ↓ ↓	ND ↓ ↓	ND ↓ ↓
Trichlorofluoromethane	1.0	ND U	ND U	ND U	ND U
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND ↓
cis-1,2-Dichloroethene	1.0	ND	ND	ND	**2.6**
1,1-Dichloroethane	1.0	ND	ND	ND	ND U
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND ✓	ND ✓	ND ✓
Benzene	1.0	ND	ND U	ND U	ND U
Trichloroethene	1.0	ND	**9.2**	**7.4**	**3.6**
Toluene	1.0	ND	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND ✓	ND ✓	ND ✓	ND ✓
1,1,2-Trichloro-trifluoroethane	1.0	ND U ✓	ND U ✓	ND U ✓	ND U ✓

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	85	84	102	96
d-Chloroform	25	75-125	114	90	104	99
d-Benzene	25	75-125	115	90	104	102
Dibromofluoromethane	50	75-125	98	98	99	97
Toluene-d8	50	75-125	101	100	102	102
Bromofluorobenzene	50	75-125	102	99	100	100

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

REC 4/6/01

LEVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/18/00	12/18/00	12/18/00	12/18/00
ANALYTICAL BATCH		001218M4V319	001218M4V319	001218M4V319	001218M4V319
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		LFSV17/S02	LFSV19/S01	LFSV20/S01	LFSV21/S01
EPA I.D. & DEPTH		RV964 8'	RV965 5.5'	RV966 5'	RV968 1.5'
LAB SAMPLE I.D.		M4-202-12	M4-202-13	M4-202-14	M4-202-16
COMPOUND	**RL**	Raw Qual / Final Conc	Raw Qual / Final Conc	Raw Qual / Final Conc	Raw Qual / Final Conc
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND UJ c	ND UJ c	ND UJ c	ND UJ c
Chloroethane	1.0	ND ↓ ↓	ND ↓ ↓	ND ↓ ↓	ND ↓ ↓
Trichlorofluoromethane	1.0	ND U	ND U	ND U	ND U
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND ↓	ND ↓	ND ↓	ND ↓
Benzene	1.0	ND U	ND U	ND U	ND U
Trichloroethene	1.0	**1.9**	**44**	**1.1**	**1.8**
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND ↓	ND ↓	ND ↓	ND ↓
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND U ↓	ND U ↓	ND U ↓	ND U ↓

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	100	92	98	96
d-Chloroform	25	75-125	102	92	99	96
d-Benzene	25	75-125	106	93	102	98
Dibromofluoromethane	50	75-125	98	98	97	96
Toluene-d8	50	75-125	102	103	102	104
Bromofluorobenzene	50	75-125	101	100	100	101

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KEC
4/6/01

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/19/00	12/19/00	12/19/00	12/19/00
ANALYTICAL BATCH		001219M4V320	001219M4V320	001219M4V320	001219M4V320
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		NA	MCSV01/S02	SRSV02/S04	BUSV72/S02
EPA I.D. & DEPTH		NA	RV969 10'	RV971 22'	RV972 11'
LAB SAMPLE I.D.		Blank	M4-203-01	M4-203-02	M4-203-03
COMPOUND	**RL**		Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND U	ND U	ND U
Chloroethane	1.0	ND	ND UJ C	ND UJ C	ND UJ C
Trichlorofluoromethane	1.0	ND	ND U	ND U	ND U
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND U	ND	ND
Trichloroethene	1.0	ND	**1.0**	ND	ND
Toluene	1.0	ND	ND U	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND U	ND	ND
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND	ND U	ND U	ND U

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	99	109	100	107
d-Chloroform	25	75-125	97	105	98	102
d-Benzene	25	75-125	97	109	99	104
Dibromofluoromethane	50	75-125	97	95	100	97
Toluene-d8	50	75-125	104	101	101	101
Bromofluorobenzene	50	75-125	101	101	101	102

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

Rec 4/25/01

EVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/19/00	12/19/00	12/19/00	12/19/00
ANALYTICAL BATCH		001219M4V320	001219M4V320	001219M4V320	001219M4V320
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		BUSV02/D02	LFSV20S02	LFSV07S04	CTSV11/S02
EPA I.D. & DEPTH		RV973 11'	RV967 10'	RV974 22'	RV975 6.5'
LAB SAMPLE I.D.		M4-203-04	M4-203-05	M4-203-06	M4-203-07
COMPOUND	**RL**	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND U	ND U	ND U	ND U
Chloroethane	1.0	ND UJ c	ND UJ c	ND UJ c	ND UJ c
Trichlorofluoromethane	1.0	ND U	ND U	ND U	ND U
1,1-Dichloroethene	1.0	ND	ND	ND	**18**
Methylene Chloride	1.0	ND	ND	ND	ND U
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND U
1,1,1-Trichloroethane	1.0	ND	ND	ND	**17**
Carbon Tetrachloride	1.0	ND	ND	ND	ND U
1,2-Dichloroethane	1.0	ND U	ND U	ND U	ND U
Benzene	1.0	ND U	ND U	ND U	ND U
Trichloroethene	1.0	**1.9**	**1.8**	**1.7**	**42**
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND U	ND U	**6.3**	ND U

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	100	75	95	103
d-Chloroform	25	75-125	92	76	94	100
d-Benzene	25	75-125	93	75	94	102
Dibromofluoromethane	50	75-125	98	100	97	97
Toluene-d8	50	75-125	102	103	102	102
Bromofluorobenzene	50	75-125	102	103	103	101

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/19/00	12/19/00	12/19/00	12/19/00	
ANALYTICAL BATCH		001219M4V320	001219M4V320	001219M4V320	001219M4V320	
DILUTION FACTOR		1	1	1	1	
CLIENT SAMPLE I.D.		CTSV11/S01	CTSV9/S01	CTSV12/S01	CTSV12/S02	
EPA I.D. & DEPTH		RV976 2.5'	RV977 3'	RV978 3'	RV979 7'	
LAB SAMPLE I.D.		M4-203-08	M4-203-09	M4-203-10	M4-203-11	
COMPOUND	**RL**	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code	Res Qual / Qual Code	
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U	
Vinyl Chloride	1.0	ND U	ND U	ND U	ND U	
Chloroethane	1.0	ND U J C	ND U J C	ND U J C	ND U J C	
Trichlorofluoromethane	1.0	ND U	ND U	ND U	ND U	
1,1-Dichloroethene	1.0	**15**	**6.3**	**3.1**	**3.4**	
Methylene Chloride	1.0	ND U	ND U	ND U	ND U	
cis-1,2-Dichloroethene	1.0	ND	**3.5**	ND	ND	
1,1-Dichloroethane	1.0	ND	**5.6**	ND	ND	
trans-1,2-Dichloroethene	1.0	ND	ND U	ND	ND	
Chloroform	1.0	ND U	ND U	ND U	ND	
1,1,1-Trichloroethane	1.0	**13**	**220**	**5.2**	**5.6**	
Carbon Tetrachloride	1.0	ND U	ND U	ND U	ND U	
1,2-Dichloroethane	1.0	ND	ND U	ND	ND	
Benzene	1.0	ND	ND U	ND	ND	
Trichloroethene	1.0	**32**	**340* J X10**	**19**	**20**	
Toluene	1.0	ND U	ND U	ND U	ND U	
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND	
Tetrachloroethene	1.0	ND	ND	ND	ND	
Ethylbenzene	1.0	ND	ND	ND	ND	
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND	
m,p-Xylenes	1.0	ND	ND	ND	ND	
o-Xylene	1.0	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND	
1,1,2-Trichloro-trifluoroethane	5.0 ~~1.0~~	ND U	ND U	ND U	ND U	

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	**%REC**
d-Methylene Chloride	25	75-125	109	106	100	103
d-Chloroform	25	75-125	105	106	97	101
d-Benzene	25	75-125	105	105	98	101
Dibromofluoromethane	50	75-125	99	97	96	97
Toluene-d8	50	75-125	102	100	102	102
Bromofluorobenzene	50	75-125	102	102	101	101

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

*This concentration is an estimated value; see Case Narrative.

9/25/01 ktc

LEVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/19/00	12/19/00	12/19/00	
ANALYTICAL BATCH		001219M4V320	001219M4V320	001219M4V320	
DILUTION FACTOR		1	1	1	
CLIENT SAMPLE I.D.		CTSV10/S01	CTSV13/S01	CTSV14/S01	
EPA I.D. & DEPTH		RV980 4'	RV981 3.5'	RV982 1.5'	
LAB SAMPLE I.D.		M4-203-12	M4-203-13	M4-203-14	
COMPOUND	**RL**	Raw Qual / Qual Code	Raw Qual / Qual Code	Raw Qual / Qual Code	
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	
Vinyl Chloride	1.0	ND U	ND U	ND U	
Chloroethane	1.0	ND UJ C	ND UJ C	ND UJ C	
Trichlorofluoromethane	1.0	ND U	ND U	ND U	
1,1-Dichloroethene	1.0	**5.4**	ND	ND	
Methylene Chloride	1.0	ND U	ND	ND	
cis-1,2-Dichloroethene	1.0	**3.1**	ND	ND	
1,1-Dichloroethane	1.0	**3.3**	ND	ND	
trans-1,2-Dichloroethene	1.0	ND U	ND	ND	
Chloroform	1.0	ND U	ND	ND	
1,1,1-Trichloroethane	1.0	**150**	ND	ND	
Carbon Tetrachloride	1.0	ND U	ND	ND	
1,2-Dichloroethane	1.0	ND	ND V	ND	
Benzene	1.0	ND U	ND U	ND	
Trichloroethene	1.0	**390*** J X ID	**12**	ND	
Toluene	1.0	ND U	ND U	ND	
1,1,2-Trichloroethane	1.0	ND	ND	ND	
Tetrachloroethene	1.0	ND	ND	ND	
Ethylbenzene	1.0	ND	ND	ND	
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	
m,p-Xylenes	1.0	ND U	ND	ND	
o-Xylene	1.0	ND U	ND	ND	
1,1,2,2-Tetrachloroethane	1.0	ND U	ND V	ND V	
1,1,2-Trichloro-trifluoroethane	~~5.0~~ 1.0	ND U J	ND U J	ND U J	

SURROGATE	**SPK CONC**	**ACP%**	**%REC**	**%REC**	**%REC**	
d-Methylene Chloride	25	75-125	102	99	97	
d-Chloroform	25	75-125	101	97	94	
d-Benzene	25	75-125	105	97	94	
Dibromofluoromethane	50	75-125	97	99	96	
Toluene-d8	50	75-125	103	104	102	
Bromofluorobenzene	50	75-125	100	102	101	

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

*This concentration is an estimated value; see Case Narrative.

Rec 4/25/01

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/20/00	12/20/00		12/20/00		
ANALYTICAL BATCH		001219M4V322	001219M4V322		001219M4V322		
DILUTION FACTOR		1	1		1		
CLIENT SAMPLE I.D.		NA	ILSV07S01		ILSV07S03		
EPA I.D. & DEPTH		NA	RV983 5'		RV984 14.5'		
LAB SAMPLE I.D.		Blank	M4-204-01		M4-204-02		
COMPOUND	RL		Res Qual	Qual Code	Res Qual	Qual Code	
Dichlorodifluoromethane	1.0	ND	ND	U	ND	U	
Vinyl Chloride	1.0	ND	ND		ND		
Chloroethane	1.0	ND	ND		ND		
Trichlorofluoromethane	1.0	ND	ND		ND		
1,1-Dichloroethene	1.0	ND	ND		ND		
Methylene Chloride	1.0	ND	ND		ND		
cis-1,2-Dichloroethene	1.0	ND	ND		ND		
1,1-Dichloroethane	1.0	ND	ND		ND		
trans-1,2-Dichloroethene	1.0	ND	ND		ND		
Chloroform	1.0	ND	ND		ND		
1,1,1-Trichloroethane	1.0	ND	ND		ND		
Carbon Tetrachloride	1.0	ND	ND		ND		
1,2-Dichloroethane	1.0	ND	ND		ND		
Benzene	1.0	ND	ND		ND		
Trichloroethene	1.0	ND	ND		ND		
Toluene	1.0	ND	ND		ND		
1,1,2-Trichloroethane	1.0	ND	ND		ND		
Tetrachloroethene	1.0	ND	ND		ND		
Ethylbenzene	1.0	ND	ND		ND		
1,1,1,2-Tetrachloroethane	1.0	ND	ND		ND		
m,p-Xylenes	1.0	ND	ND		ND		
o-Xylene	1.0	ND	ND		ND		
1,1,2,2-Tetrachloroethane	1.0	ND	ND	U	ND	U	
1,1,2-Trichloro-trifluoroethane	5.0 1.0	ND	ND	U	ND	U	

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	
d-Methylene Chloride	25	75-125	103	99	110	
d-Chloroform	25	75-125	95	88	97	
d-Benzene	25	75-125	102	94	105	
Dibromofluoromethane	50	75-125	94	95	96	
Toluene-d8	50	75-125	102	101	102	
Bromofluorobenzene	50	75-125	101	102	103	

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent, %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL), NA = Not Applicable

REC 4/6/01

EVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/21/00	12/21/00	12/21/00	12/21/00
ANALYTICAL BATCH		001221M4V325	001221M4V325	001221M4V325	001221M4V325
DILUTION FACTOR		1	5	5	1
CLIENT SAMPLE I.D.		NA	ILSV70S01	ILSV70S02	ILSV71S01
EPA I.D. & DEPTH		NA	RV986 5'	RV987 9'	RV988 5'
LAB SAMPLE I.D.		Blank	M4-205-01	M4-205-02	M4-205-03
COMPOUND	RL		R.L. Raw Qual Qual Code	R.L. Raw Qual Qual Code	Raw Qual Qual Code
Dichlorodifluoromethane	1.0	ND	5.0 ND U	5.0 ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND U	ND U	ND
1,1-Dichloroethene	1.0	ND	**90**	**120**	ND
Methylene Chloride	1.0	ND	5.0 ND U	ND U	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND U	ND U	ND
1,1,1-Trichloroethane	1.0	ND	**850**	**740**	ND
Carbon Tetrachloride	1.0	ND	5.0 ND U	ND U	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND U	ND U	ND U
Trichloroethene	1.0	ND	**210**	**200**	**1.4**
Toluene	1.0	ND	5.0 ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	J ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND U	5.0 ND U	ND
1,1,2-Trichloro-trifluoroethane	5.0 1.0	ND	25 **96**	25 **120**	ND U

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	113	84	113	79
d-Chloroform	25	75-125	111	108	108	116
d-Benzene	25	75-125	109	108	105	112
Dibromofluoromethane	50	75-125	94	98	96	99
Toluene-d8	50	75-125	102	102	102	98
Bromofluorobenzene	50	75-125	101	101	103	99

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

REC 4/6/01

LEVEL

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/21/00	12/21/00	12/21/00	12/21/00
ANALYTICAL BATCH		001221M4V325	001221M4V325	001221M4V325	001221M4V325
DILUTION FACTOR		5	5	5	5
CLIENT SAMPLE I.D.		ILSV72S01	ILSV72S02	ILSV72S03	ILSV72D03
EPA I.D. & DEPTH		RV989 6'	RV990 10'	RV991 15'	RV992 15'
LAB SAMPLE I.D.		M4-205-04	M4-205-05	M4-205-06	M4-205-07
COMPOUND	RL	RL Res Qual Qual Code	RL Res Qual Qual Code	RL Res Qual Qual Code	RL Res Qual Qual Code
Dichlorodifluoromethane	1.0	5.0 ND U	5.0 ND U	5.0 ND U	5.0 ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND U	ND U	ND U	ND U
1,1-Dichloroethene	1.0	**81**	**110**	**160**	**170**
Methylene Chloride	1.0	ND U	ND U	ND U	ND U
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND U	ND U	ND U	ND U
1,1,1-Trichloroethane	1.0	**14**	**16**	**19**	**20**
Carbon Tetrachloride	1.0	ND U	ND U	ND U	ND U
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND U	ND U	ND U	ND U
Trichloroethene	1.0	**280**	**290**	**420**	**460**
Toluene	1.0	ND U	ND U	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	5.0 ND U	5.0 ND U	5.0 ND U	5.0 ND U
1,1,2-Trichloro-trifluoroethane	5.0 1.0	25 **190**	25 **220**	25 **330**	25 **350**

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	81	81	94	109
d-Chloroform	25	75-125	87	80	88	99
d-Benzene	25	75-125	81	88	91	99
Dibromofluoromethane	50	75-125	98	99	97	93
Toluene-d8	50	75-125	103	103	101	102
Bromofluorobenzene	50	75-125	99	100	97	101

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KK 4/6/01

LEVEL V

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/21/00	12/21/00	12/21/00	12/21/00
ANALYTICAL BATCH		001221M4V325	001221M4V325	001221M4V325	001221M4V325
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		ILSV64S01	ILSV64S02	ILSV64S03	ILSV65S01
EPA I.D. & DEPTH		RV993 5'	RV994 10'	RV995 15'	RV996 6'
LAB SAMPLE I.D.		M4-205-08	M4-205-09	M4-205-10	M4-205-11
COMPOUND	RL	Raw Qual / Final Code	Raw Qual / Final Code	Raw Qual / Final Code	Raw Qual / Final Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND V
Chloroform	1.0	ND	ND	ND	ND U
1,1,1-Trichloroethane	1.0	ND	ND	ND	2.7
Carbon Tetrachloride	1.0	ND	ND	ND	ND U
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND	ND
Trichloroethene	1.0	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND V	ND V	ND V	ND V
1,1,2-Trichloro-trifluoroethane	~~1.0~~ 5.0	ND U J	ND U J	ND U J	ND U J

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	86	76	108	97
d-Chloroform	25	75-125	83	107	106	98
d-Benzene	25	75-125	80	110	110	98
Dibromofluoromethane	50	75-125	102	101	98	101
Toluene-d8	50	75-125	101	100	100	100
Bromofluorobenzene	50	75-125	98	99	99	100

SPK CONC = Spiking Concentration, ACP % = Acceptable Range of Percent, %REC = % Recovery

RL = Reporting Limit, MB = Method Blank; ND = Not Detected (Below RL), NA = Not Applicable

REC 4/6/01

SURROGATE

VELV

Centrum Analytical Laboratories, Inc.

ANALYTICAL TEST RESULTS

Reporting Unit: ug/L

DATE ANALYZED		12/21/00	12/21/00	12/21/00	12/21/00
ANALYTICAL BATCH		001221M4V325	001221M4V325	001221M4V325	001221M4V325
DILUTION FACTOR		1	1	1	1
CLIENT SAMPLE I.D.		ILSV67S01	ILSV67S03	ILSV68S01	ILSV68D01
EPA I.D. & DEPTH		RV997 3'	RV998 13'	RV999 3.5'	TV001 3.5'
LAB SAMPLE I.D.		M4-205-12	M4-205-13	M4-205-14	M4-205-15
COMPOUND	RL	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code	Rev Qual / Qual Code
Dichlorodifluoromethane	1.0	ND U	ND U	ND U	ND U
Vinyl Chloride	1.0	ND	ND	ND	ND
Chloroethane	1.0	ND	ND	ND	ND
Trichlorofluoromethane	1.0	ND	ND	ND	ND
1,1-Dichloroethene	1.0	ND	ND	ND	ND
Methylene Chloride	1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND	ND	ND
1,1-Dichloroethane	1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND	ND	ND
Chloroform	1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	1.0	ND	ND	ND	ND
Carbon Tetrachloride	1.0	ND	ND	ND	ND
1,2-Dichloroethane	1.0	ND	ND	ND	ND
Benzene	1.0	ND	ND	ND U	ND U
Trichloroethene	1.0	ND	ND	**1.4**	**1.8**
Toluene	1.0	ND	ND	ND U	ND U
1,1,2-Trichloroethane	1.0	ND	ND	ND	ND
Tetrachloroethene	1.0	ND	ND	ND	ND
Ethylbenzene	1.0	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	1.0	ND	ND	ND	ND
m,p-Xylenes	1.0	ND	ND	ND	ND
o-Xylene	1.0	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND	ND	ND
1,1,2-Trichloro-trifluoroethane	~~1.0~~ 5.0	ND U	ND U	ND U	ND U

SURROGATE	SPK CONC	ACP%	%REC	%REC	%REC	%REC
d-Methylene Chloride	25	75-125	112	109	110	104
d-Chloroform	25	75-125	112	111	110	105
d-Benzene	25	75-125	118	112	111	105
Dibromofluoromethane	50	75-125	97	97	99	97
Toluene-d8	50	75-125	102	101	101	100
Bromofluorobenzene	50	75-125	98	99	98	100

SPK CONC = Spiking Concentration; ACP % = Acceptable Range of Percent; %REC = % Recovery

RL = Reporting Limit; MB = Method Blank; ND = Not Detected (Below RL); NA = Not Applicable

KA 1/8/01

LEVEL V