Analytical and Quality Control Report

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Report Date: November 10, 2006

Work Order: 6092920

Project Name: HELSTF Phase III Soil Sampling
Project Number: 7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
104711	HLSF-0085-SB-032-(0.5-1.0)	soil	2006-09-28	11:15	2006-09-29
104712	HLSF-0085-SB-033-(0.5-1.0)	soil	2006-09-28	11:25	2006-09-29
104713	HLSF-0085-SB-034-(0.5-1.0)	soil	2006-09-28	11:30	2006-09-29
104714	HLSF-0085-SB-035-(0.5-1.0)	soil	2006-09-28	11:05	2006-09-29
104715	HLSF-0085-SB-036-(0.5-1.0)	soil	2006-09-28	11:35	2006-09-29
104716	HLSF-0085-SB-136-(0.5-1.0)	soil	2006-09-28	11:35	2006-09-29
104717	HLSF-0085-TB-568	water	2006-09-28	11:05	2006-09-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 104711 - HLSF-0085-SB-032-(0.5-1.0)

Analysis:	Volatiles WTS	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	31721	Date Analyzed:	2006-10-11	Analyzed By:	JG
Prep Batch:	27629	Sample Preparation:	2006-10-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Isopropyl Alcohol		<200	µg/kg	1	200
Bromochloromethane		<10.0	µg/Kg	1	10.0
Tert-butly Alcohol		<200	µg/kg	1	200
Dichlorodifluoromethane		<10.0	µg/Kg	1	10.0
1,4-Dioxane		<500	µg/kg	1	500
Chloromethane (methyl chloride)		<10.0	µg/Kg	1	10.0
Vinyl Chloride		<10.0	µg/Kg	1	10.0
Bromomethane (methyl bromide)		<50.0	µg/Kg	1	50.0
Chloroethane		<10.0	µg/Kg	1	10.0
Trichlorofluoromethane		<10.0	µg/Kg	1	10.0
Acetone		<100	µg/Kg	1	100
Iodomethane (methyl iodide)		<50.0	µg/Kg	1	50.0
Carbon Disulfide		<10.0	µg/Kg	1	10.0
Acrylonitrile		<10.0	µg/Kg	1	10.0
2-Butanone (MEK)		<50.0	µg/Kg	1	50.0
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	1	50.0
2-Hexanone		<50.0	µg/Kg	1	50.0
trans 1,4-Dichloro-2-butene		<100	µg/Kg	1	100
1,1-Dichloroethene		<10.0	µg/Kg	1	10.0
Methylene chloride	*B*	<50.0	µg/Kg	1	50.0
MTBE		<10.0	µg/Kg	1	10.0
trans-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
1,1-Dichloroethane		<10.0	µg/Kg	1	10.0
cis-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
2,2-Dichloropropane		<10.0	µg/Kg	1	10.0
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1	10.0
Chloroform		<10.0	µg/Kg	1	10.0
1,1,1-Trichloroethane		<10.0	µg/Kg	1	10.0
1,1-Dichloropropene		<10.0	µg/Kg	1	10.0
Benzene		<10.0	µg/Kg	1	10.0
Carbon Tetrachloride		<10.0	µg/Kg	1	10.0
1,2-Dichloropropane		<10.0	µg/Kg	1	10.0
Trichloroethene (TCE)		<10.0	µg/Kg	1	10.0
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1	10.0
Bromodichloromethane		<10.0	µg/Kg	1	10.0
2-Chloroethyl vinyl ether		<50.0	µg/Kg	1	50.0
cis-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
trans-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
Toluene		<10.0	µg/Kg	1	10.0
1,1,2-Trichloroethane		<10.0	µg/Kg	1	10.0
1,3-Dichloropropane		<10.0	µg/Kg	1	10.0
Dibromochloromethane		<10.0	µg/Kg	1	10.0
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1	10.0
Tetrachloroethene (PCE)		<10.0	µg/Kg	1	10.0

continued . . .

sample 104711 continued . . .

Parameter	Flag	Result	RL Units	Dilution	RL
Chlorobenzene		<10.0	µg/Kg	1	10.0
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
Ethylbenzene		<10.0	µg/Kg	1	10.0
m,p-Xylene		<10.0	µg/Kg	1	10.0
Bromoform		<10.0	µg/Kg	1	10.0
Styrene		<10.0	µg/Kg	1	10.0
o-Xylene		<10.0	µg/Kg	1	10.0
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
2-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2,3-Trichloropropane		<10.0	µg/Kg	1	10.0
Isopropylbenzene		<10.0	µg/Kg	1	10.0
Bromobenzene		<10.0	µg/Kg	1	10.0
n-Propylbenzene		<10.0	µg/Kg	1	10.0
1;3,5-Trimethylbenzene		<10.0	µg/Kg	1	10.0
tert-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1	10.0
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1	10.0
sec-Butylbenzene		<10.0	µg/Kg	1	10.0
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1	10.0
p-Isopropyltoluene		<10.0	µg/Kg	1	10.0
4-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1	10.0
n-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	1	50.0
1,2,3-Trichlorobenzene		<50.0	µg/Kg	1	50.0
1,2,4-Trichlorobenzene		<50.0	µg/Kg	1	50.0
Naphthalene		<50.0	µg/Kg	1	50.0
Hexachlorobutadiene		<50.0	µg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		450	µg/Kg	1	500	90	42 - 129
Toluene-d8		489	µg/Kg	1	500	98	93 - 107
4-Bromofluorobenzene (4-BFB)		468	µg/Kg	1	500	94	78 - 120

Sample: 104712 - HLSF-0085-SB-033-(0.5-1.0)

Analysis:	Volatiles WTS	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	31721	Date Analyzed:	2006-10-11	Analyzed By:	JG
Prep Batch:	27629	Sample Preparation:	2006-10-11	Prepared By:	JG

Parameter	Flag	Result	RL Units	Dilution	RL
Isopropyl Alcohol		<200	µg/kg	1	200
Bromochloromethane		<10.0	µg/Kg	1	10.0
Tert-butly Alcohol		<200	µg/kg	1	200
Dichlorodifluoromethane		<10.0	µg/Kg	1	10.0
1,4-Dioxane		<500	µg/kg	1	500

continued . . .

sample 104712 continued . . .

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloromethane (methyl chloride)		<10.0		µg/Kg	1	10.0
Vinyl Chloride		<10.0		µg/Kg	1	10.0
Bromomethane (methyl bromide)		<50.0		µg/Kg	1	50.0
Chloroethane		<10.0		µg/Kg	1	10.0
Trichlorofluoromethane		<10.0		µg/Kg	1	10.0
Acetone		<100		µg/Kg	1	100
Iodomethane (methyl iodide)		<50.0		µg/Kg	1	50.0
Carbon Disulfide		<10.0		µg/Kg	1	10.0
Acrylonitrile		<10.0		µg/Kg	1	10.0
2-Butanone (MEK)		<50.0		µg/Kg	1	50.0
4-Methyl-2-pentanone (MIBK)		<50.0		µg/Kg	1	50.0
2-Hexanone		<50.0		µg/Kg	1	50.0
trans 1,4-Dichloro-2-butene		<100		µg/Kg	1	100
1,1-Dichloroethene		<10.0		µg/Kg	1	10.0
Methylene chloride	*B*	<50.0		µg/Kg	1	50.0
MTBE		<10.0		µg/Kg	1	10.0
trans-1,2-Dichloroethene		<10.0		µg/Kg	1	10.0
1,1-Dichloroethane		<10.0		µg/Kg	1	10.0
cis-1,2-Dichloroethene		<10.0		µg/Kg	1	10.0
2,2-Dichloropropane		<10.0		µg/Kg	1	10.0
1,2-Dichloroethane (EDC)		<10.0		µg/Kg	1	10.0
Chloroform		<10.0		µg/Kg	1	10.0
1,1,1-Trichloroethane		<10.0		µg/Kg	1	10.0
1,1-Dichloropropene		<10.0		µg/Kg	1	10.0
Benzene		<10.0		µg/Kg	1	10.0
Carbon Tetrachloride		<10.0		µg/Kg	1	10.0
1,2-Dichloropropane		<10.0		µg/Kg	1	10.0
Trichloroethene (TCE)		<10.0		µg/Kg	1	10.0
Dibromomethane (methylene bromide)		<10.0		µg/Kg	1	10.0
Bromodichloromethane		<10.0		µg/Kg	1	10.0
2-Chloroethyl vinyl ether		<50.0		µg/Kg	1	50.0
cis-1,3-Dichloropropene		<10.0		µg/Kg	1	10.0
trans-1,3-Dichloropropene		<10.0		µg/Kg	1	10.0
Toluene		<10.0		µg/Kg	1	10.0
1,1,2-Trichloroethane		<10.0		µg/Kg	1	10.0
1,3-Dichloropropane		<10.0		µg/Kg	1	10.0
Dibromochloromethane		<10.0		µg/Kg	1	10.0
1,2-Dibromoethane (EDB)		<10.0		µg/Kg	1	10.0
Tetrachloroethene (PCE)		<10.0		µg/Kg	1	10.0
Chlorobenzene		<10.0		µg/Kg	1	10.0
1,1,1,2-Tetrachloroethane		<10.0		µg/Kg	1	10.0
Ethylbenzene		<10.0		µg/Kg	1	10.0
m,p-Xylene		<10.0		µg/Kg	1	10.0
Bromoform		<10.0		µg/Kg	1	10.0
Styrene		<10.0		µg/Kg	1	10.0
o-Xylene		<10.0		µg/Kg	1	10.0
1,1,2,2-Tetrachloroethane		<10.0		µg/Kg	1	10.0
2-Chlorotoluene		<10.0		µg/Kg	1	10.0
1,2,3-Trichloropropane		<10.0		µg/Kg	1	10.0

continued . . .

sample 104712 continued . . .

Parameter	Flag	Result	RL	Units	Dilution	RL
Isopropylbenzene		<10.0		µg/Kg	1	10.0
Bromobenzene		<10.0		µg/Kg	1	10.0
n-Propylbenzene		<10.0		µg/Kg	1	10.0
1,3,5-Trimethylbenzene		<10.0		µg/Kg	1	10.0
tert-Butylbenzene		<10.0		µg/Kg	1	10.0
1,2,4-Trimethylbenzene		<10.0		µg/Kg	1	10.0
1,4-Dichlorobenzene (para)		<10.0		µg/Kg	1	10.0
sec-Butylbenzene		<10.0		µg/Kg	1	10.0
1,3-Dichlorobenzene (meta)		<10.0		µg/Kg	1	10.0
p-Isopropyltoluene		<10.0		µg/Kg	1	10.0
4-Chlorotoluene		<10.0		µg/Kg	1	10.0
1,2-Dichlorobenzene (ortho)		<10.0		µg/Kg	1	10.0
n-Butylbenzene		<10.0		µg/Kg	1	10.0
1,2-Dibromo-3-chloropropane		<50.0		µg/Kg	1	50.0
1,2,3-Trichlorobenzene		<50.0		µg/Kg	1	50.0
1,2,4-Trichlorobenzene		<50.0		µg/Kg	1	50.0
Naphthalene		<50.0		µg/Kg	1	50.0
Hexachlorobutadiene		<50.0		µg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		458	µg/Kg	1	500	92	42 - 129
Toluene-d8		491	µg/Kg	1	500	98	93 - 107
4-Bromofluorobenzene (4-BFB)		470	µg/Kg	1	500	94	78 - 120

Sample: 104713 - HLSF-0085-SB-034-(0.5-1.0)

Analysis:	Volatiles WTS	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	31721	Date Analyzed:	2006-10-11	Analyzed By:	JG
Prep Batch:	27629	Sample Preparation:	2006-10-11	Prepared By:	JG

Parameter	Flag	Result	RL	Units	Dilution	RL
Bromochloromethane		<10.0		µg/Kg	1	10.0
Isopropyl Alcohol		<200		µg/kg	1	200
Tert-butly Alcohol		<200		µg/kg	1	200
Dichlorodifluoromethane		<10.0		µg/Kg	1	10.0
Chloromethane (methyl chloride)		<10.0		µg/Kg	1	10.0
1,4-Dioxane		<500		µg/kg	1	500
Vinyl Chloride		<10.0		µg/Kg	1	10.0
Bromomethane (methyl bromide)		<50.0		µg/Kg	1	50.0
Chloroethane		<10.0		µg/Kg	1	10.0
Trichlorofluoromethane		<10.0		µg/Kg	1	10.0
Acetone		<100		µg/Kg	1	100
Iodomethane (methyl iodide)		<50.0		µg/Kg	1	50.0
Carbon Disulfide		<10.0		µg/Kg	1	10.0
Acrylonitrile		<10.0		µg/Kg	1	10.0
2-Butanone (MEK)		<50.0		µg/Kg	1	50.0

continued . . .

sample 104713 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	1	50.0
2-Hexanone		<50.0	µg/Kg	1	50.0
trans 1,4-Dichloro-2-butene		<100	µg/Kg	1	100
1,1-Dichloroethene		<10.0	µg/Kg	1	10.0
Methylene chloride	B	<50.0	µg/Kg	1	50.0
MTBE		<10.0	µg/Kg	1	10.0
trans-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
1,1-Dichloroethane		<10.0	µg/Kg	1	10.0
cis-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
2,2-Dichloropropane		<10.0	µg/Kg	1	10.0
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1	10.0
Chloroform		<10.0	µg/Kg	1	10.0
1,1,1-Trichloroethane		<10.0	µg/Kg	1	10.0
1,1-Dichloropropene		<10.0	µg/Kg	1	10.0
Benzene		<10.0	µg/Kg	1	10.0
Carbon Tetrachloride		<10.0	µg/Kg	1	10.0
1,2-Dichloropropane		<10.0	µg/Kg	1	10.0
Trichloroethene (TCE)		<10.0	µg/Kg	1	10.0
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1	10.0
Bromodichloromethane		<10.0	µg/Kg	1	10.0
2-Chloroethyl vinyl ether		<50.0	µg/Kg	1	50.0
cis-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
trans-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
Toluene		<10.0	µg/Kg	1	10.0
1,1,2-Trichloroethane		<10.0	µg/Kg	1	10.0
1,3-Dichloropropane		<10.0	µg/Kg	1	10.0
Dibromochloromethane		<10.0	µg/Kg	1	10.0
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1	10.0
Tetrachloroethene (PCE)		<10.0	µg/Kg	1	10.0
Chlorobenzene		<10.0	µg/Kg	1	10.0
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
Ethylbenzene		<10.0	µg/Kg	1	10.0
m,p-Xylene		<10.0	µg/Kg	1	10.0
Bromoform		<10.0	µg/Kg	1	10.0
Styrene		<10.0	µg/Kg	1	10.0
o-Xylene		<10.0	µg/Kg	1	10.0
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
2-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2,3-Trichloropropane		<10.0	µg/Kg	1	10.0
Isopropylbenzene		<10.0	µg/Kg	1	10.0
Bromobenzene		<10.0	µg/Kg	1	10.0
n-Propylbenzene		<10.0	µg/Kg	1	10.0
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1	10.0
tert-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1	10.0
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1	10.0
sec-Butylbenzene		<10.0	µg/Kg	1	10.0
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1	10.0
p-Isopropyltoluene		<10.0	µg/Kg	1	10.0

continued...

sample 104713 continued . . .

Parameter	Flag	Result	RL Units	Dilution	RL
4-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1	10.0
n-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	1	50.0
1,2,3-Trichlorobenzene		<50.0	µg/Kg	1	50.0
1,2,4-Trichlorobenzene		<50.0	µg/Kg	1	50.0
Naphthalene		<50.0	µg/Kg	1	50.0
Hexachlorobutadiene		<50.0	µg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		455	µg/Kg	1	500	91	42 - 129
Toluene-d8		484	µg/Kg	1	500	97	93 - 107
4-Bromofluorobenzene (4-BFB)		465	µg/Kg	1	500	93	78 - 120

Sample: 104714 - HLSF-0085-SB-035-(0.5-1.0)

Analysis:	Volatiles WTS	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	31721	Date Analyzed:	2006-10-11	Analyzed By:	JG
Prep Batch:	27629	Sample Preparation:	2006-10-11	Prepared By:	JG

Parameter	Flag	Result	RL Units	Dilution	RL
Isopropyl Alcohol		<200	µg/kg	1	200
Bromochloromethane		<10.0	µg/Kg	1	10.0
Dichlorodifluoromethane		<10.0	µg/Kg	1	10.0
Tert-butly Alcohol		<200	µg/kg	1	200
Chloromethane (methyl chloride)		<10.0	µg/Kg	1	10.0
1,4-Dioxane		<500	µg/kg	1	500
Vinyl Chloride		<10.0	µg/Kg	1	10.0
Bromomethane (methyl bromide)		<50.0	µg/Kg	1	50.0
Chloroethane		<10.0	µg/Kg	1	10.0
Trichlorofluoromethane		<10.0	µg/Kg	1	10.0
Acetone		<100	µg/Kg	1	100
Iodomethane (methyl iodide)		<50.0	µg/Kg	1	50.0
Carbon Disulfide		<10.0	µg/Kg	1	10.0
Acrylonitrile		<10.0	µg/Kg	1	10.0
2-Butanone (MEK)		<50.0	µg/Kg	1	50.0
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	1	50.0
2-Hexanone		<50.0	µg/Kg	1	50.0
trans 1,4-Dichloro-2-butene		<100	µg/Kg	1	100
1,1-Dichloroethene		<10.0	µg/Kg	1	10.0
Methylene chloride	B	<50.0	µg/Kg	1	50.0
MTBE		<10.0	µg/Kg	1	10.0
trans-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
1,1-Dichloroethane		<10.0	µg/Kg	1	10.0
cis-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
2,2-Dichloropropane		<10.0	µg/Kg	1	10.0

continued . . .

sample 104714 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1	10.0
Chloroform		<10.0	µg/Kg	1	10.0
1,1,1-Trichloroethane		<10.0	µg/Kg	1	10.0
1,1-Dichloropropene		<10.0	µg/Kg	1	10.0
Benzene		<10.0	µg/Kg	1	10.0
Carbon Tetrachloride		<10.0	µg/Kg	1	10.0
1,2-Dichloropropane		<10.0	µg/Kg	1	10.0
Trichloroethene (TCE)		<10.0	µg/Kg	1	10.0
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1	10.0
Bromodichloromethane		<10.0	µg/Kg	1	10.0
2-Chloroethyl vinyl ether		<50.0	µg/Kg	1	50.0
cis-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
trans-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
Toluene		<10.0	µg/Kg	1	10.0
1,1,2-Trichloroethane		<10.0	µg/Kg	1	10.0
1,3-Dichloropropane		<10.0	µg/Kg	1	10.0
Dibromochloromethane		<10.0	µg/Kg	1	10.0
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1	10.0
Tetrachloroethene (PCE)		<10.0	µg/Kg	1	10.0
Chlorobenzene		<10.0	µg/Kg	1	10.0
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
Ethylbenzene		<10.0	µg/Kg	1	10.0
m,p-Xylene		<10.0	µg/Kg	1	10.0
Bromoform		<10.0	µg/Kg	1	10.0
Styrene		<10.0	µg/Kg	1	10.0
o-Xylene		<10.0	µg/Kg	1	10.0
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
2-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2,3-Trichloropropane		<10.0	µg/Kg	1	10.0
Isopropylbenzene		<10.0	µg/Kg	1	10.0
Bromobenzene		<10.0	µg/Kg	1	10.0
n-Propylbenzene		<10.0	µg/Kg	1	10.0
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1	10.0
tert-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1	10.0
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1	10.0
sec-Butylbenzene		<10.0	µg/Kg	1	10.0
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1	10.0
p-Isopropyltoluene		<10.0	µg/Kg	1	10.0
4-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1	10.0
n-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	1	50.0
1,2,3-Trichlorobenzene		<50.0	µg/Kg	1	50.0
1,2,4-Trichlorobenzene		<50.0	µg/Kg	1	50.0
Naphthalene		<50.0	µg/Kg	1	50.0
Hexachlorobutadiene		<50.0	µg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		461	µg/Kg	1	500	92	42 - 129
Toluene-d8		498	µg/Kg	1	500	100	93 - 107
4-Bromofluorobenzene (4-BFB)		478	µg/Kg	1	500	96	78 - 120

Sample: 104715 - HLSF-0085-SB-036-(0.5-1.0)

Analysis:	Volatiles WTS	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	31721	Date Analyzed:	2006-10-11	Analyzed By:	JG
Prep Batch:	27629	Sample Preparation:	2006-10-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Isopropyl Alcohol		<200	µg/kg	1	200
Bromochloromethane		<10.0	µg/Kg	1	10.0
Dichlorodifluoromethane		<10.0	µg/Kg	1	10.0
Tert-butly Alcohol		<200	µg/kg	1	200
Chloromethane (methyl chloride)		<10.0	µg/Kg	1	10.0
1,4-Dioxane		<500	µg/kg	1	500
Vinyl Chloride		<10.0	µg/Kg	1	10.0
Bromomethane (methyl bromide)		<50.0	µg/Kg	1	50.0
Chloroethane		<10.0	µg/Kg	1	10.0
Trichlorofluoromethane		<10.0	µg/Kg	1	10.0
Acetone		<100	µg/Kg	1	100
Iodomethane (methyl iodide)		<50.0	µg/Kg	1	50.0
Carbon Disulfide		<10.0	µg/Kg	1	10.0
Acrylonitrile		<10.0	µg/Kg	1	10.0
2-Butanone (MEK)		<50.0	µg/Kg	1	50.0
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	1	50.0
2-Hexanone		<50.0	µg/Kg	1	50.0
trans 1,4-Dichloro-2-butene		<100	µg/Kg	1	100
1,1-Dichloroethene		<10.0	µg/Kg	1	10.0
Methylene chloride	*B*	<50.0	µg/Kg	1	50.0
MTBE		<10.0	µg/Kg	1	10.0
trans-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
1,1-Dichloroethane		<10.0	µg/Kg	1	10.0
cis-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
2,2-Dichloropropane		<10.0	µg/Kg	1	10.0
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1	10.0
Chloroform		<10.0	µg/Kg	1	10.0
1,1,1-Trichloroethane		<10.0	µg/Kg	1	10.0
1,1-Dichloropropene		<10.0	µg/Kg	1	10.0
Benzene		<10.0	µg/Kg	1	10.0
Carbon Tetrachloride		<10.0	µg/Kg	1	10.0
1,2-Dichloropropane		<10.0	µg/Kg	1	10.0
Trichloroethene (TCE)		<10.0	µg/Kg	1	10.0
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1	10.0
Bromodichloromethane		<10.0	µg/Kg	1	10.0
2-Chloroethyl vinyl ether		<50.0	µg/Kg	1	50.0
cis-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
trans-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0

continued . . .

sample 104715 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
Toluene		<10.0		µg/Kg	1	10.0
1,1,2-Trichloroethane		<10.0		µg/Kg	1	10.0
1,3-Dichloropropane		<10.0		µg/Kg	1	10.0
Dibromochloromethane		<10.0		µg/Kg	1	10.0
1,2-Dibromoethane (EDB)		<10.0		µg/Kg	1	10.0
Tetrachloroethene (PCE)		<10.0		µg/Kg	1	10.0
Chlorobenzene		<10.0		µg/Kg	1	10.0
1,1,1,2-Tetrachloroethane		<10.0		µg/Kg	1	10.0
Ethylbenzene		<10.0		µg/Kg	1	10.0
m,p-Xylene		<10.0		µg/Kg	1	10.0
Bromoform		<10.0		µg/Kg	1	10.0
Styrene		<10.0		µg/Kg	1	10.0
o-Xylene		<10.0		µg/Kg	1	10.0
1,1,2,2-Tetrachloroethane		<10.0		µg/Kg	1	10.0
2-Chlorotoluene		<10.0		µg/Kg	1	10.0
1,2,3-Trichloropropane		<10.0		µg/Kg	1	10.0
Isopropylbenzene		<10.0		µg/Kg	1	10.0
Bromobenzene		<10.0		µg/Kg	1	10.0
n-Propylbenzene		<10.0		µg/Kg	1	10.0
1,3,5-Trimethylbenzene		<10.0		µg/Kg	1	10.0
tert-Butylbenzene		<10.0		µg/Kg	1	10.0
1,2,4-Trimethylbenzene		<10.0		µg/Kg	1	10.0
1,4-Dichlorobenzene (para)		<10.0		µg/Kg	1	10.0
sec-Butylbenzene		<10.0		µg/Kg	1	10.0
1,3-Dichlorobenzene (meta)		<10.0		µg/Kg	1	10.0
p-Isopropyltoluene		<10.0		µg/Kg	1	10.0
4-Chlorotoluene		<10.0		µg/Kg	1	10.0
1,2-Dichlorobenzene (ortho)		<10.0		µg/Kg	1	10.0
n-Butylbenzene		<10.0		µg/Kg	1	10.0
1,2-Dibromo-3-chloropropane		<50.0		µg/Kg	1	50.0
1,2,3-Trichlorobenzene		<50.0		µg/Kg	1	50.0
1,2,4-Trichlorobenzene		<50.0		µg/Kg	1	50.0
Naphthalene		<50.0		µg/Kg	1	50.0
Hexachlorobutadiene		<50.0		µg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		466	µg/Kg	1	500	93	42 - 129
Toluene-d8		494	µg/Kg	1	500	99	93 - 107
4-Bromofluorobenzene (4-BFB)		473	µg/Kg	1	500	95	78 - 120

Sample: 104716 - HLSF-0085-SB-136-(0.5-1.0)

Analysis:	Volatiles WTS	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	31721	Date Analyzed:	2006-10-11	Analyzed By:	JG
Prep Batch:	27629	Sample Preparation:	2006-10-11	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Bromochloromethane		<10.0	µg/Kg	1	10.0
Isopropyl Alcohol		<200	µg/kg	1	200
Tert-butly Alcohol		<200	µg/kg	1	200
Dichlorodifluoromethane		<10.0	µg/Kg	1	10.0
Chloromethane (methyl chloride)		<10.0	µg/Kg	1	10.0
1,4-Dioxane		<500	µg/kg	1	500
Vinyl Chloride		<10.0	µg/Kg	1	10.0
Bromomethane (methyl bromide)		<50.0	µg/Kg	1	50.0
Chloroethane		<10.0	µg/Kg	1	10.0
Trichlorofluoromethane		<10.0	µg/Kg	1	10.0
Acetone		<100	µg/Kg	1	100
Iodomethane (methyl iodide)		<50.0	µg/Kg	1	50.0
Carbon Disulfide		<10.0	µg/Kg	1	10.0
Acrylonitrile		<10.0	µg/Kg	1	10.0
2-Butanone (MEK)		<50.0	µg/Kg	1	50.0
4-Methyl-2-pentanone (MIBK)		<50.0	µg/Kg	1	50.0
2-Hexanone		<50.0	µg/Kg	1	50.0
trans 1,4-Dichloro-2-butene		<100	µg/Kg	1	100
1,1-Dichloroethene		<10.0	µg/Kg	1	10.0
Methylene chloride	*B*	<50.0	µg/Kg	1	50.0
MTBE		<10.0	µg/Kg	1	10.0
trans-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
1,1-Dichloroethane		<10.0	µg/Kg	1	10.0
cis-1,2-Dichloroethene		<10.0	µg/Kg	1	10.0
2,2-Dichloropropane		<10.0	µg/Kg	1	10.0
1,2-Dichloroethane (EDC)		<10.0	µg/Kg	1	10.0
Chloroform		<10.0	µg/Kg	1	10.0
1,1,1-Trichloroethane		<10.0	µg/Kg	1	10.0
1,1-Dichloropropene		<10.0	µg/Kg	1	10.0
Benzene		<10.0	µg/Kg	1	10.0
Carbon Tetrachloride		<10.0	µg/Kg	1	10.0
1,2-Dichloropropane		<10.0	µg/Kg	1	10.0
Trichloroethene (TCE)		<10.0	µg/Kg	1	10.0
Dibromomethane (methylene bromide)		<10.0	µg/Kg	1	10.0
Bromodichloromethane		<10.0	µg/Kg	1	10.0
2-Chloroethyl vinyl ether		<50.0	µg/Kg	1	50.0
cis-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
trans-1,3-Dichloropropene		<10.0	µg/Kg	1	10.0
Toluene		<10.0	µg/Kg	1	10.0
1,1,2-Trichloroethane		<10.0	µg/Kg	1	10.0
1,3-Dichloropropane		<10.0	µg/Kg	1	10.0
Dibromochloromethane		<10.0	µg/Kg	1	10.0
1,2-Dibromoethane (EDB)		<10.0	µg/Kg	1	10.0
Tetrachloroethene (PCE)		<10.0	µg/Kg	1	10.0
Chlorobenzene		<10.0	µg/Kg	1	10.0
1,1,1,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
Ethylbenzene		<10.0	µg/Kg	1	10.0
m,p-Xylene		<10.0	µg/Kg	1	10.0
Bromoform		<10.0	µg/Kg	1	10.0
Styrene		<10.0	µg/Kg	1	10.0
o-Xylene		<10.0	µg/Kg	1	10.0

continued . . .

sample 104716 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
1,1,2,2-Tetrachloroethane		<10.0	µg/Kg	1	10.0
2-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2,3-Trichloropropane		<10.0	µg/Kg	1	10.0
Isopropylbenzene		<10.0	µg/Kg	1	10.0
Bromobenzene		<10.0	µg/Kg	1	10.0
n-Propylbenzene		<10.0	µg/Kg	1	10.0
1,3,5-Trimethylbenzene		<10.0	µg/Kg	1	10.0
tert-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2,4-Trimethylbenzene		<10.0	µg/Kg	1	10.0
1,4-Dichlorobenzene (para)		<10.0	µg/Kg	1	10.0
sec-Butylbenzene		<10.0	µg/Kg	1	10.0
1,3-Dichlorobenzene (meta)		<10.0	µg/Kg	1	10.0
p-Isopropyltoluene		<10.0	µg/Kg	1	10.0
4-Chlorotoluene		<10.0	µg/Kg	1	10.0
1,2-Dichlorobenzene (ortho)		<10.0	µg/Kg	1	10.0
n-Butylbenzene		<10.0	µg/Kg	1	10.0
1,2-Dibromo-3-chloropropane		<50.0	µg/Kg	1	50.0
1,2,3-Trichlorobenzene		<50.0	µg/Kg	1	50.0
1,2,4-Trichlorobenzene		<50.0	µg/Kg	1	50.0
Naphthalene		<50.0	µg/Kg	1	50.0
Hexachlorobutadiene		<50.0	µg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		465	µg/Kg	1	500	93	42 - 129
Toluene-d8		499	µg/Kg	1	500	100	93 - 107
4-Bromofluorobenzene (4-BFB)		474	µg/Kg	1	500	95	78 - 120

Method Blank (1) QC Batch: 31721

QC Batch: 31721 Date Analyzed: 2006-10-11 Analyzed By: JG
Prep Batch: 27629 QC Preparation: 2006-10-11 Prepared By: JG

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.825	µg/Kg	10
Isopropyl Alcohol		<85.5	µg/kg	200
Tert-butly Alcohol		<88.1	µg/kg	200
Dichlorodifluoromethane		<0.889	µg/Kg	10
1,4-Dioxane		<176	µg/kg	500
Chloromethane (methyl chloride)		<0.929	µg/Kg	10
Vinyl Chloride		<0.463	µg/Kg	10
Bromomethane (methyl bromide)		<1.71	µg/Kg	50
Chloroethane		<3.68	µg/Kg	10
Trichlorofluoromethane		<0.306	µg/Kg	10
Acetone		<1.70	µg/Kg	100
Iodomethane (methyl iodide)		<0.640	µg/Kg	50
Carbon Disulfide		<0.346	µg/Kg	10

continued . . .

method blank continued . . .

Parameter	Flag	MDL Result	Units	RL
Acrylonitrile		<1.51	µg/Kg	10
2-Butanone (MEK)		<3.78	µg/Kg	50
4-Methyl-2-pentanone (MIBK)		<7.86	µg/Kg	50
2-Hexanone		<5.70	µg/Kg	50
trans 1,4-Dichloro-2-butene		<1.33	µg/Kg	100
1,1-Dichloroethene		<0.639	µg/Kg	10
Methylene chloride		8.53	µg/Kg	50
MTBE		<0.362	µg/Kg	10
trans-1,2-Dichloroethene		<0.419	µg/Kg	10
1,1-Dichloroethane		<0.257	µg/Kg	10
cis-1,2-Dichloroethene		<0.627	µg/Kg	10
2,2-Dichloropropane		<0.593	µg/Kg	10
1,2-Dichloroethane (EDC)		<0.524	µg/Kg	10
Chloroform		<0.440	µg/Kg	10
1,1,1-Trichloroethane		<0.750	µg/Kg	10
1,1-Dichloropropene		<0.622	µg/Kg	10
Benzene		<0.644	µg/Kg	10
Carbon Tetrachloride		<0.485	µg/Kg	10
1,2-Dichloropropane		<0.547	µg/Kg	10
Trichloroethene (TCE)		<0.836	µg/Kg	10
Dibromomethane (methylene bromide)		<0.435	µg/Kg	10
Bromodichloromethane		<0.457	µg/Kg	10
2-Chloroethyl vinyl ether		<0.547	µg/Kg	50
cis-1,3-Dichloropropene		<0.596	µg/Kg	10
trans-1,3-Dichloropropene		<0.561	µg/Kg	10
Toluene		<1.12	µg/Kg	10
1,1,2-Trichloroethane		<3.25	µg/Kg	10
1,3-Dichloropropane		<0.505	µg/Kg	10
Dibromochloromethane		<0.552	µg/Kg	10
1,2-Dibromoethane (EDB)		<0.688	µg/Kg	10
Tetrachloroethene (PCE)		<0.826	µg/Kg	10
Chlorobenzene		<0.426	µg/Kg	10
1,1,1,2-Tetrachloroethane		<0.289	µg/Kg	10
Ethylbenzene		<0.376	µg/Kg	10
m,p-Xylene		<0.714	µg/Kg	10
Bromoform		<0.426	µg/Kg	10
Styrene		<0.796	µg/Kg	10
o-Xylene		<0.679	µg/Kg	10
1,1,2,2-Tetrachloroethane		<0.703	µg/Kg	10
2-Chlorotoluene		<1.26	µg/Kg	10
1,2,3-Trichloropropane		<0.504	µg/Kg	10
Isopropylbenzene		<1.30	µg/Kg	10
Bromobenzene		<0.480	µg/Kg	10
n-Propylbenzene		<0.421	µg/Kg	10
1,3,5-Trimethylbenzene		<2.10	µg/Kg	10
tert-Butylbenzene		<0.410	µg/Kg	10
1,2,4-Trimethylbenzene		<0.535	µg/Kg	10
1,4-Dichlorobenzene (para)		<0.387	µg/Kg	10
sec-Butylbenzene		<0.632	µg/Kg	10
1,3-Dichlorobenzene (meta)		<0.534	µg/Kg	10

continued . . .

method blank continued . . .

Parameter	Flag	MDL Result	Units	RL
p-Isopropyltoluene		<0.679	µg/Kg	10
4-Chlorotoluene		<0.675	µg/Kg	10
1,2-Dichlorobenzene (ortho)		<0.475	µg/Kg	10
n-Butylbenzene		<0.979	µg/Kg	10
1,2-Dibromo-3-chloropropane		<0.883	µg/Kg	50
1,2,3-Trichlorobenzene		<3.64	µg/Kg	50
1,2,4-Trichlorobenzene		<2.28	µg/Kg	50
Naphthalene		<4.41	µg/Kg	50
Hexachlorobutadiene		<3.24	µg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		461	µg/Kg	1	500	92	42 - 129
Toluene-d8		488	µg/Kg	1	500	98	93 - 107
4-Bromofluorobenzene (4-BFB)		476	µg/Kg	1	500	95	78 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 31721 Date Analyzed: 2006-10-11 Analyzed By: JG
Prep Batch: 27629 QC Preparation: 2006-10-11 Prepared By: JG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	462	µg/Kg	1	500	<0.639	92	76.9 - 114
Benzene	494	µg/Kg	1	500	<0.644	99	79.7 - 113
Trichloroethene (TCE)	516	µg/Kg	1	500	<0.836	103	84.2 - 119
Toluene	487	µg/Kg	1	500	<1.12	97	82 - 110
Chlorobenzene	494	µg/Kg	1	500	<0.426	99	85.9 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	456	µg/Kg	1	500	<0.639	91	76.9 - 114	1	20
Benzene	504	µg/Kg	1	500	<0.644	101	79.7 - 113	2	20
Trichloroethene (TCE)	522	µg/Kg	1	500	<0.836	104	84.2 - 119	1	20
Toluene	496	µg/Kg	1	500	<1.12	99	82 - 110	2	20
Chlorobenzene	506	µg/Kg	1	500	<0.426	101	85.9 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	470	471	µg/Kg	1	500	94	94	87 - 108
Toluene-d8	489	489	µg/Kg	1	500	98	98	92.3 - 106
4-Bromofluorobenzene (4-BFB)	459	459	µg/Kg	1	500	92	92	83.4 - 117

Matrix Spike (MS-1) Spiked Sample: 104711

QC Batch: 31721 Date Analyzed: 2006-10-11 Analyzed By: JG
Prep Batch: 27629 QC Preparation: 2006-10-11 Prepared By: JG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	470	µg/Kg	1	500	<0.639	94	76.1 - 115
Benzene	486	µg/Kg	1	500	<0.644	97	82.1 - 110
Trichloroethene (TCE)	506	µg/Kg	1	500	<0.836	101	75.5 - 129
Toluene	474	µg/Kg	1	500	<1.12	95	82.3 - 108
Chlorobenzene	486	µg/Kg	1	500	<0.426	97	84.1 - 111

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	469	µg/Kg	1	500	<0.639	94	76.1 - 115	0	20
Benzene	480	µg/Kg	1	500	<0.644	96	82.1 - 110	1	20
Trichloroethene (TCE)	502	µg/Kg	1	500	<0.836	100	75.5 - 129	1	20
Toluene	473	µg/Kg	1	500	<1.12	95	82.3 - 108	0	20
Chlorobenzene	485	µg/Kg	1	500	<0.426	97	84.1 - 111	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	453	480	µg/Kg	1	500	91	96	87.9 - 105
Toluene-d8	476	492	µg/Kg	1	500	95	98	90.2 - 109
4-Bromofluorobenzene (4-BFB)	450	464	µg/Kg	1	500	90	93	82.9 - 116

Standard (CCV-1)

QC Batch: 31721 Date Analyzed: 2006-10-11 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	48.4	97	80 - 120	2006-10-11
1,1-Dichloroethene		µg/Kg	50.0	49.6	99	80 - 120	2006-10-11
Chloroform		µg/Kg	50.0	48.8	98	80 - 120	2006-10-11
1,2-Dichloropropane		µg/Kg	50.0	50.4	101	80 - 120	2006-10-11
Toluene		µg/Kg	50.0	47.6	95	80 - 120	2006-10-11
Chlorobenzene		µg/Kg	50.0	48.1	96	80 - 120	2006-10-11
Ethylbenzene		µg/Kg	50.0	46.9	94	80 - 120	2006-10-11

Analytical and Quality Control Report

William Little
WTS
P.O. Box 363
Building 126 3RD Floor
WSMR, NM, 88002

Report Date: November 10, 2006

Work Order: 6092920

Project Name: HELSTF Phase III Soil Sampling
Project Number: 7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
104711	HLSF-0085-SB-032-(0.5-1.0)	soil	2006-09-28	11:15	2006-09-29
104712	HLSF-0085-SB-033-(0.5-1.0)	soil	2006-09-28	11:25	2006-09-29
104713	HLSF-0085-SB-034-(0.5-1.0)	soil	2006-09-28	11:30	2006-09-29
104714	HLSF-0085-SB-035-(0.5-1.0)	soil	2006-09-28	11:05	2006-09-29
104715	HLSF-0085-SB-036-(0.5-1.0)	soil	2006-09-28	11:35	2006-09-29
104716	HLSF-0085-SB-136-(0.5-1.0)	soil	2006-09-28	11:35	2006-09-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 104711 - HLSF-0085-SB-032-(0.5-1.0)

Analysis:	K, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Potassium		**451**	mg/Kg	1	50.0

Sample: 104711 - HLSF-0085-SB-032-(0.5-1.0)

Analysis:	Na, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Sodium		**244**	mg/Kg	1	50.0

Sample: 104711 - HLSF-0085-SB-032-(0.5-1.0)

Analysis:	P, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Phosphorous		**100**	mg/Kg	1	2.00

Sample: 104711 - HLSF-0085-SB-032-(0.5-1.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	30711	Date Analyzed:	2006-10-05	Analyzed By:	TP
Prep Batch:	26709	Sample Preparation:	2006-10-04	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Silver		<0.0500	mg/Kg	1	0.0500
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		**31.9**	mg/Kg	1	1.00
Total Cadmium		<0.100	mg/Kg	1	0.100
Total Chromium		**3.38**	mg/Kg	1	0.500
Total Mercury		<0.0400	mg/Kg	1	0.0400
Total Lead		**4.69**	mg/Kg	1	1.00

continued . . .

sample 104711 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 104711 - HLSF-0085-SB-032-(0.5-1.0)

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Zinc		**8.72**	mg/Kg	1	2.00

Sample: 104712 - HLSF-0085-SB-033-(0.5-1.0)

Analysis:	K, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Potassium		**407**	mg/Kg	1	50.0

Sample: 104712 - HLSF-0085-SB-033-(0.5-1.0)

Analysis:	Na, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Sodium		**332**	mg/Kg	1	50.0

Sample: 104712 - HLSF-0085-SB-033-(0.5-1.0)

Analysis:	P, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Phosphorous		**67.7**	mg/Kg	1	2.00

Sample: 104712 - HLSF-0085-SB-033-(0.5-1.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	30711	Date Analyzed:	2006-10-05	Analyzed By:	TP
Prep Batch:	26709	Sample Preparation:	2006-10-04	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Silver		<0.0500	mg/Kg	1	0.0500
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		**26.3**	mg/Kg	1	1.00
Total Cadmium		**0.134**	mg/Kg	1	0.100
Total Chromium		**2.21**	mg/Kg	1	0.500
Total Mercury		<0.0400	mg/Kg	1	0.0400
Total Lead		**2.73**	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 104712 - HLSF-0085-SB-033-(0.5-1.0)

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Zinc		**4.55**	mg/Kg	1	2.00

Sample: 104713 - HLSF-0085-SB-034-(0.5-1.0)

Analysis:	K, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Potassium		**709**	mg/Kg	1	50.0

Sample: 104713 - HLSF-0085-SB-034-(0.5-1.0)

Analysis:	Na, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Sodium		**253**	mg/Kg	1	50.0

Sample: 104713 - HLSF-0085-SB-034-(0.5-1.0)

Analysis:	P, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Phosphorous		**74.7**	mg/Kg	1	2.00

Sample: 104713 - HLSF-0085-SB-034-(0.5-1.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	30711	Date Analyzed:	2006-10-05	Analyzed By:	TP
Prep Batch:	26709	Sample Preparation:	2006-10-04	Prepared By:	TP

Parameter	Flag	Result	RL Units	Dilution	RL
Total Silver		<0.0500	mg/Kg	1	0.0500
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		**41.7**	mg/Kg	1	1.00
Total Cadmium		<0.100	mg/Kg	1	0.100
Total Chromium		**3.33**	mg/Kg	1	0.500
Total Mercury		<0.0400	mg/Kg	1	0.0400
Total Lead		<1.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 104713 - HLSF-0085-SB-034-(0.5-1.0)

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Zinc		**6.98**	mg/Kg	1	2.00

Sample: 104714 - HLSF-0085-SB-035-(0.5-1.0)

Analysis:	K, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL Units	Dilution	RL
Total Potassium		**632**	mg/Kg	1	50.0

Sample: 104714 - HLSF-0085-SB-035-(0.5-1.0)

Analysis:	Na, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Sodium		**214**		mg/Kg	1	50.0

Sample: 104714 - HLSF-0085-SB-035-(0.5-1.0)

Analysis:	P, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Phosphorous		**120**		mg/Kg	1	2.00

Sample: 104714 - HLSF-0085-SB-035-(0.5-1.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	30711	Date Analyzed:	2006-10-05	Analyzed By:	TP
Prep Batch:	26709	Sample Preparation:	2006-10-04	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Silver		<0.0500		mg/Kg	1	0.0500
Total Arsenic		**2.68**		mg/Kg	1	2.00
Total Barium		**48.6**		mg/Kg	1	1.00
Total Cadmium		<0.100		mg/Kg	1	0.100
Total Chromium		**3.93**		mg/Kg	1	0.500
Total Mercury		<0.0400		mg/Kg	1	0.0400
Total Lead		<1.00		mg/Kg	1	1.00
Total Selenium		<1.00		mg/Kg	1	1.00

Sample: 104714 - HLSF-0085-SB-035-(0.5-1.0)

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Zinc		**7.91**		mg/Kg	1	2.00

Sample: 104715 - HLSF-0085-SB-036-(0.5-1.0)

Analysis:	K, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Potassium		**915**		mg/Kg	1	50.0

Sample: 104715 - HLSF-0085-SB-036-(0.5-1.0)

Analysis:	Na, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Sodium		**203**		mg/Kg	1	50.0

Sample: 104715 - HLSF-0085-SB-036-(0.5-1.0)

Analysis:	P, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Phosphorous		**102**		mg/Kg	1	2.00

Sample: 104715 - HLSF-0085-SB-036-(0.5-1.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	30711	Date Analyzed:	2006-10-05	Analyzed By:	TP
Prep Batch:	26709	Sample Preparation:	2006-10-04	Prepared By:	TP

Parameter	Flag	Result	RL	Units	Dilution	RL
Total Silver		<0.0500		mg/Kg	1	0.0500
Total Arsenic		<2.00		mg/Kg	1	2.00
Total Barium		**43.4**		mg/Kg	1	1.00
Total Cadmium		<0.100		mg/Kg	1	0.100
Total Chromium		**3.07**		mg/Kg	1	0.500
Total Mercury		<0.0400		mg/Kg	1	0.0400
Total Lead		<1.00		mg/Kg	1	1.00
Total Selenium		<1.00		mg/Kg	1	1.00

Sample: 104715 - HLSF-0085-SB-036-(0.5-1.0)

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Zinc		**6.63**	mg/Kg	1	2.00

Sample: 104716 - HLSF-0085-SB-136-(0.5-1.0)

Analysis:	K, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Potassium		**732**	mg/Kg	1	50.0

Sample: 104716 - HLSF-0085-SB-136-(0.5-1.0)

Analysis:	Na, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Sodium		**149**	mg/Kg	1	50.0

Sample: 104716 - HLSF-0085-SB-136-(0.5-1.0)

Analysis:	P, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Phosphorous		**104**	mg/Kg	1	2.00

Sample: 104716 - HLSF-0085-SB-136-(0.5-1.0)

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	30711	Date Analyzed:	2006-10-05	Analyzed By:	TP
Prep Batch:	26709	Sample Preparation:	2006-10-04	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.0500	mg/Kg	1	0.0500
Total Arsenic		<2.00	mg/Kg	1	2.00
Total Barium		**44.2**	mg/Kg	1	1.00
Total Cadmium		<0.100	mg/Kg	1	0.100
Total Chromium		**2.93**	mg/Kg	1	0.500
Total Mercury		<0.0400	mg/Kg	1	0.0400
Total Lead		<1.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 104716 - HLSF-0085-SB-136-(0.5-1.0)

Analysis:	Zn, Total	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	Sample Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Total Zinc		**6.67**	mg/Kg	1	2.00

Method Blank (1) QC Batch: 30611

QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	QC Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Total Phosphorous		<0.223	mg/Kg	2

Method Blank (1) QC Batch: 30611

QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	QC Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Total Zinc		<0.124	mg/Kg	2

Method Blank (1) QC Batch: 30611

QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	QC Preparation:	2006-10-03	Prepared By:	TS

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Parameter	Flag	MDL Result	Units	RL

Parameter	Flag	MDL Result	Units	RL
Total Silver		<0.00444	mg/Kg	0.05
Total Arsenic		<0.228	mg/Kg	2
Total Barium		<0.0601	mg/Kg	1
Total Cadmium		<0.00794	mg/Kg	0.1
Total Chromium		<0.0125	mg/Kg	0.5
Total Lead		<0.367	mg/Kg	1
Total Selenium		<0.0767	mg/Kg	1

Method Blank (1) QC Batch: 30619

QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	QC Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Total Potassium		<0.291	mg/Kg	50

Method Blank (1) QC Batch: 30619

QC Batch:	30619	Date Analyzed:	2006-10-03	Analyzed By:	TP
Prep Batch:	26662	QC Preparation:	2006-10-03	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Total Sodium		<0.0820	mg/Kg	50

Method Blank (1) QC Batch: 30711

QC Batch:	30711	Date Analyzed:	2006-10-05	Analyzed By:	TP
Prep Batch:	26709	QC Preparation:	2006-10-04	Prepared By:	TP

Parameter	Flag	MDL Result	Units	RL
Total Mercury		<0.00299	mg/Kg	0.04

Laboratory Control Spike (LCS-1)

QC Batch:	30611	Date Analyzed:	2006-10-03	Analyzed By:	RR
Prep Batch:	26662	QC Preparation:	2006-10-03	Prepared By:	TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Phosphorous	48.8	mg/Kg	1	50.0	<0.223	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Phosphorous	48.6	mg/Kg	1	50.0	<0.223	97	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR
Prep Batch: 26662 QC Preparation: 2006-10-03 Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	26.0	mg/Kg	1	25.0	<0.124	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	25.9	mg/Kg	1	25.0	<0.124	104	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR
Prep Batch: 26662 QC Preparation: 2006-10-03 Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	11.8	mg/Kg	1	12.5	<0.00444	94	85 - 113
Total Arsenic	46.6	mg/Kg	1	50.0	<0.228	93	85 - 111
Total Barium	96.7	mg/Kg	1	100	<0.0601	97	85 - 103
Total Cadmium	23.4	mg/Kg	1	25.0	<0.00794	94	85 - 115
Total Chromium	10.3	mg/Kg	1	10.0	<0.0125	103	85 - 115
Total Lead	48.4	mg/Kg	1	50.0	<0.367	97	85 - 115
Total Selenium	40.2	mg/Kg	1	50.0	<0.0767	80	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	11.8	mg/Kg	1	12.5	<0.00444	94	85 - 113	0	20
Total Arsenic	44.8	mg/Kg	1	50.0	<0.228	90	85 - 111	4	20
Total Barium	97.6	mg/Kg	1	100	<0.0601	98	85 - 103	1	20
Total Cadmium	23.3	mg/Kg	1	25.0	<0.00794	93	85 - 115	0	20
Total Chromium	10.4	mg/Kg	1	10.0	<0.0125	104	85 - 115	1	20
Total Lead	48.6	mg/Kg	1	50.0	<0.367	97	85 - 115	0	20
Total Selenium	41.2	mg/Kg	1	50.0	<0.0767	82	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP
Prep Batch: 26662 QC Preparation: 2006-10-03 Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	4660	mg/Kg	100	5000	<29.1	93	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	4600	mg/Kg	100	5000	<29.1	92	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP
Prep Batch: 26662 QC Preparation: 2006-10-03 Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	4640	mg/Kg	100	5000	<8.20	93	85.4 - 108

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	4700	mg/Kg	100	5000	<8.20	94	85.4 - 108	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 30711 Date Analyzed: 2006-10-05 Analyzed By: TP
Prep Batch: 26709 QC Preparation: 2006-10-04 Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.465	mg/Kg	1	0.500	<0.00299	93	85.2 - 118

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.498	mg/Kg	1	0.500	<0.00299	100	85.2 - 118	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 104712

QC Batch: 30611 | Date Analyzed: 2006-10-03 | Analyzed By: RR
Prep Batch: 26662 | QC Preparation: 2006-10-03 | Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Phosphorous	106	mg/Kg	1	50.0	67.7	77	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Phosphorous	124	mg/Kg	1	50.0	67.7	113	75 - 125	16	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 104712

QC Batch: 30611 | Date Analyzed: 2006-10-03 | Analyzed By: RR
Prep Batch: 26662 | QC Preparation: 2006-10-03 | Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Zinc	34.1	mg/Kg	1	25.0	4.55	118	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Zinc	29.7	mg/Kg	1	25.0	4.55	101	75 - 125	14	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 104712

QC Batch: 30611 | Date Analyzed: 2006-10-03 | Analyzed By: RR
Prep Batch: 26662 | QC Preparation: 2006-10-03 | Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	10.5	mg/Kg	1	12.5	<0.00444	84	78.1 - 115
Total Arsenic	41.1	mg/Kg	1	50.0	<0.228	82	75 - 114
Total Barium	111	mg/Kg	1	100	26.3	85	75.7 - 123
Total Cadmium	19.2	mg/Kg	1	25.0	0.134	76	75 - 112
Total Chromium	10.3	mg/Kg	1	10.0	2.21	81	75 - 125
Total Lead	43.9	mg/Kg	1	50.0	2.73	82	75 - 125
Total Selenium	38.6	mg/Kg	1	50.0	<0.0767	77	75 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	11.2	mg/Kg	1	12.5	<0.00444	90	78.1 - 115	6	20

continued . . .

matrix spikes continued . . .

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Arsenic	43.3	mg/Kg	1	50.0	<0.228	87	75 - 114	5	20
Total Barium	113	mg/Kg	1	100	26.3	87	75.7 - 123	2	20
Total Cadmium	20.3	mg/Kg	1	25.0	0.134	81	75 - 112	6	20
Total Chromium	11.1	mg/Kg	1	10.0	2.21	89	75 - 125	8	20
Total Lead	47.1	mg/Kg	1	50.0	2.73	89	75 - 125	7	20
Total Selenium	38.0	mg/Kg	1	50.0	<0.0767	76	75 - 117	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 104712

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP
Prep Batch: 26662 QC Preparation: 2006-10-03 Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Potassium	5080	mg/Kg	100	5000	407	93	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Potassium	5060	mg/Kg	100	5000	407	93	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 104712

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP
Prep Batch: 26662 QC Preparation: 2006-10-03 Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Sodium	4920	mg/Kg	100	5000	332	92	78.4 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Sodium	5030	mg/Kg	100	5000	332	94	78.4 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 104711

QC Batch: 30711 Date Analyzed: 2006-10-05 Analyzed By: TP
Prep Batch: 26709 QC Preparation: 2006-10-04 Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Mercury	0.476	mg/Kg	1	0.500	<0.00299	95	77.6 - 124

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Mercury	0.484	mg/Kg	1	0.500	<0.00299	97	77.6 - 124	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/Kg	5.00	4.92	98	90 - 110	2006-10-03

Standard (ICV-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/Kg	1.00	0.985	98	90 - 110	2006-10-03

Standard (ICV-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.129	103	90 - 110	2006-10-03
Total Arsenic		mg/Kg	1.00	1.02	102	95 - 105	2006-10-03
Total Barium		mg/Kg	1.00	1.02	102	95 - 105	2006-10-03
Total Cadmium		mg/Kg	1.00	0.980	98	95 - 105	2006-10-03
Total Chromium		mg/Kg	1.00	0.988	99	90 - 110	2006-10-03
Total Lead		mg/Kg	1.00	0.983	98	90 - 110	2006-10-03
Total Selenium		mg/Kg	1.00	0.998	100	90 - 110	2006-10-03

Standard (CCV-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Phosphorous		mg/Kg	5.00	5.04	101	90 - 110	2006-10-03

Standard (CCV-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Zinc		mg/Kg	1.00	1.01	101	90 - 110	2006-10-03

Standard (CCV-1)

QC Batch: 30611 Date Analyzed: 2006-10-03 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.131	105	90 - 110	2006-10-03
Total Arsenic		mg/Kg	1.00	1.02	102	90 - 110	2006-10-03
Total Barium		mg/Kg	1.00	1.05	105	90 - 110	2006-10-03
Total Cadmium		mg/Kg	1.00	1.01	101	90 - 110	2006-10-03
Total Chromium		mg/Kg	1.00	1.01	101	90 - 110	2006-10-03
Total Lead		mg/Kg	1.00	1.01	101	90 - 110	2006-10-03
Total Selenium		mg/Kg	1.00	1.03	103	90 - 110	2006-10-03

Standard (ICV-1)

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/Kg	50.0	49.5	99	90 - 110	2006-10-03

Standard (ICV-1)

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/Kg	50.0	48.9	98	90 - 110	2006-10-03

Standard (CCV-1)

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Potassium		mg/Kg	50.0	47.4	95	90 - 110	2006-10-03

Standard (CCV-1)

QC Batch: 30619 Date Analyzed: 2006-10-03 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Sodium		mg/Kg	50.0	46.7	93	90 - 110	2006-10-03

Standard (ICV-1)

QC Batch: 30711 Date Analyzed: 2006-10-05 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00512	102	90 - 110	2006-10-05

Standard (CCV-1)

QC Batch: 30711 Date Analyzed: 2006-10-05 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00529	106	80 - 120	2006-10-05

Analytical and Quality Control Report

William Little
WTS
P.O. Box 363
Building 126 3RD Floor
WSMR, NM, 88002

Report Date: November 10, 2006

Work Order: 6092920

Project Name: HELSTF Phase III Soil Sampling
Project Number: 7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
104711	HLSF-0085-SB-032-(0.5-1.0)	soil	2006-09-28	11:15	2006-09-29
104712	HLSF-0085-SB-033-(0.5-1.0)	soil	2006-09-28	11:25	2006-09-29
104713	HLSF-0085-SB-034-(0.5-1.0)	soil	2006-09-28	11:30	2006-09-29
104714	HLSF-0085-SB-035-(0.5-1.0)	soil	2006-09-28	11:05	2006-09-29
104715	HLSF-0085-SB-036-(0.5-1.0)	soil	2006-09-28	11:35	2006-09-29
104716	HLSF-0085-SB-136-(0.5-1.0)	soil	2006-09-28	11:35	2006-09-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 3 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 104711 - HLSF-0085-SB-032-(0.5-1.0)

Analysis:	FOC	Analytical Method:	ASTM D 2974-87	Prep Method:	N/A
QC Batch:	30863	Date Analyzed:	2006-10-05	Analyzed By:	SM
Prep Batch:	26701	Sample Preparation:	2006-10-03	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
FOC		**6.58**	%	1	0.00

Sample: 104712 - HLSF-0085-SB-033-(0.5-1.0)

Analysis:	FOC	Analytical Method:	ASTM D 2974-87	Prep Method:	N/A
QC Batch:	30863	Date Analyzed:	2006-10-05	Analyzed By:	SM
Prep Batch:	26701	Sample Preparation:	2006-10-03	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
FOC		**6.21**	%	1	0.00

Sample: 104713 - HLSF-0085-SB-034-(0.5-1.0)

Analysis:	FOC	Analytical Method:	ASTM D 2974-87	Prep Method:	N/A
QC Batch:	30863	Date Analyzed:	2006-10-05	Analyzed By:	SM
Prep Batch:	26701	Sample Preparation:	2006-10-03	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
FOC		**6.16**	%	1	0.00

Sample: 104714 - HLSF-0085-SB-035-(0.5-1.0)

Analysis:	FOC	Analytical Method:	ASTM D 2974-87	Prep Method:	N/A
QC Batch:	30863	Date Analyzed:	2006-10-05	Analyzed By:	SM
Prep Batch:	26701	Sample Preparation:	2006-10-03	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
FOC		**4.93**	%	1	0.00

Sample: 104715 - HLSF-0085-SB-036-(0.5-1.0)

Analysis:	FOC	Analytical Method:	ASTM D 2974-87	Prep Method:	N/A
QC Batch:	30863	Date Analyzed:	2006-10-05	Analyzed By:	SM
Prep Batch:	26701	Sample Preparation:	2006-10-03	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
FOC		**5.95**	%	1	0.00

Sample: 104716 - HLSF-0085-SB-136-(0.5-1.0)

Analysis:	FOC	Analytical Method:	ASTM D 2974-87	Prep Method:	N/A
QC Batch:	30863	Date Analyzed:	2006-10-05	Analyzed By:	SM
Prep Batch:	26701	Sample Preparation:	2006-10-03	Prepared By:	WB

Parameter	Flag	RL Result	Units	Dilution	RL
FOC		**6.04**	%	1	0.00

Duplicates (1)

QC Batch:	30863	Date Analyzed:	2006-10-05	Analyzed By:	SM
Prep Batch:	26701	QC Preparation:	2006-10-03	Prepared By:	WB

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
FOC	2.89	3.28	%	1	13	34