THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

A.7

Current USATHAMA Methods Table

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT 2/5/92
DO NOT DUPLICATE

ENTER LAB FOR THIS PRINTOUT; ES
1018 records copied
1018 indexed 1018 Records indexed

Recnum	M_LAB	M_METH_NO	METH_NAME	M_TST_NAM	CERTREPLIM	MAXCON	M_ACCURAC	HOLD_TIME	HOLD_TIME1	HOLD_TIME2
446	ES	00			0.000000	0.0000	.000	0	0	0
447	ES	99			0.000000	0.0000	.000	0	0	0
1	ES	A6	PESTICIDES/TISSUE/GCEC	44DCBZ	0.012000	0.2330	.773	999	7	40
2	ES	A6	PESTICIDES/TISSUE/GCEC	ALDRN	0.026000	0.2330	.662	999	7	40
3	ES	A6	PESTICIDES/TISSUE/GCEC	DLDRN	0.043000	0.2070	.716	999	7	40
4	ES	A6	PESTICIDES/TISSUE/GCEC	ENDRN	0.039000	0.2000	.756	999	7	40
5	ES	A7	METALS/AIR/COLDVAPORAA	HG	0.062900	0.6940	.751	180	0	0
6	ES	A8	METALS/WATER/AA	AS	3.880000	50.0000	.976	180	0	0
7	ES	A8A	METALS/WATER/GFAA	AS	3.070000	50.0000	1.00	180	0	0
939	ES	AA01	VOLATILES/AIR/GCMS	CCL4	0.120000	1.0000	.746	14	0	0
941	ES	AA01	VOLATILES/AIR/GCMS	CH2CL2	1.000000	90.0000	.578	14	0	0
940	ES	AA01	VOLATILES/AIR/GCMS	CHCL3	13.000000	320.0000	.746	14	0	0
8	ES	AA8	METALS/WATER/AA	K	1256.000000	50000.0000	1.01	180	0	0
9	ES	AAA9	AGENTPRODS/SOIL/IONCHROM	FC2A	2.000000	40.0000	.929	0	7	40
10	ES	AAA9	AGENTPRODS/SOIL/IONCHROM	IMPA	2.110000	40.0000	.929	0	7	40
11	ES	AAA9	AGENTPRODS/SOIL/IONCHROM	MPA	2.000000	40.0000	.866	0	7	40
12	ES	AD01	METALS/AIR/GFAA	SE	0.002130	0.0100	.767	180	0	0
13	ES	AD02	METALS/AIR/GFAA	AS	0.003060	0.0100	.635	180	0	0
14	ES	B7	METALS/AIR/ICPLASMA-AA	AS	0.003100	0.0100	.635	180	0	0
15	ES	B7	METALS/AIR/ICPLASMA-AA	CD	0.001980	0.1000	.931	180	0	0
16	ES	B7	METALS/AIR/ICPLASMA-AA	CR	0.002600	0.1000	.869	180	0	0
17	ES	B7	METALS/AIR/ICPLASMA-AA	CU	0.016400	0.2000	.887	180	0	0
18	ES	B7	METALS/AIR/ICPLASMA-AA	PB	0.007700	0.2000	.915	180	0	0
19	ES	B7	METALS/AIR/ICPLASMA-AA	ZN	0.009700	0.5000	.865	180	0	0
20	ES	B8	METALS/WATER/ICP	CA	500.000000	50000.0000	.974	180	0	0
21	ES	B8	METALS/WATER/ICP	CD	5.160000	5000.0000	1.00	180	0	0
22	ES	B8	METALS/WATER/ICP	CR	5.960000	5000.0000	1.01	180	0	0
23	ES	B8	METALS/WATER/ICP	CU	7.930000	10000.0000	.985	180	0	0
24	ES	B8	METALS/WATER/ICP	MG	500.000000	20000.0000	.988	180	0	0
25	ES	B8	METALS/WATER/ICP	NA	764.000000	50000.0000	.954	180	0	0
26	ES	B8	METALS/WATER/ICP	PB	18.600000	5000.0000	.945	180	0	0
27	ES	B8	METALS/WATER/ICP	ZN	20.100000	20000.0000	.949	180	0	0
28	ES	BB8	ORGANICS/WATER/GCMS	13DBD4	23.000000	94.0000	.362	0	7	40
29	ES	BB8	ORGANICS/WATER/GCMS	2CLPD4	7.400000	94.0000	.803	0	7	40
30	ES	BB8	ORGANICS/WATER/GCMS	ALDRN	4.700000	94.0000	.904	0	7	40
31	ES	BB8	ORGANICS/WATER/GCMS	ATZ	5.900000	94.0000	1.05	0	7	40
32	ES	BB8	ORGANICS/WATER/GCMS	CL6CP	11.000000	46.9000	.468	0	7	40
33	ES	BB8	ORGANICS/WATER/GCMS	CLDAN	5.100000	94.0000	1.02	0	7	40
34	ES	BB8	ORGANICS/WATER/GCMS	CPMS	14.000000	94.0000	.662	0	7	40
35	ES	BB8	ORGANICS/WATER/GCMS	CPMSO	17.000000	94.0000	1.18	0	7	40
36	ES	BB8	ORGANICS/WATER/GCMS	CPMSO2	8.000000	94.0000	1.05	0	7	40
37	ES	BB8	ORGANICS/WATER/GCMS	DBCP	15.000000	94.0000	.563	0	7	40
38	ES	BB8	ORGANICS/WATER/GCMS	DCPD	4.700000	19.0000	.572	0	7	40
39	ES	BB8	ORGANICS/WATER/GCMS	DDVP	9.000000	47.0000	.962	0	7	40
40	ES	BB8	ORGANICS/WATER/GCMS	DEPD4	5.800000	94.0000	1.05	0	7	40
41	ES	BB8	ORGANICS/WATER/GCMS	DIMP	5.700000	94.0000	.995	0	7	40
42	ES	BB8	ORGANICS/WATER/GCMS	DITH	11.000000	94.0000	.709	0	7	40
43	ES	BB8	ORGANICS/WATER/GCMS	DLDRN	4.700000	94.0000	1.02	0	7	40
44	ES	BB8	ORGANICS/WATER/GCMS	DNOPD4	13.000000	94.0000	1.14	0	7	40
45	ES	BB8	ORGANICS/WATER/GCMS	ENDRN	7.600000	47.0000	1.10	0	7	40
46	ES	BB8	ORGANICS/WATER/GCMS	ISODR	5.900000	94.0000	.918	0	7	40
47	ES	BB8	ORGANICS/WATER/GCMS	MLTHN	7.600000	47.0000	1.05	0	7	40
48	ES	BB8	ORGANICS/WATER/GCMS	OXAT	6.100000	94.0000	.716	0	7	40
49	ES	BB8	ORGANICS/WATER/GCMS	PPDDE	4.700000	94.0000	.972	0	7	40
50	ES	BB8	ORGANICS/WATER/GCMS	PPDDT	10.000000	47.0000	1.15	0	7	40
51	ES	BB8	ORGANICS/WATER/GCMS	PRTHN	14.000000	94.0000	1.20	0	7	40
52	ES	BB8	ORGANICS/WATER/GCMS	SUPONA	6.500000	94.0000	1.07	0	7	40
53	ES	C7	VOLATILES/AIR/GCMS	111TCE	22.000000	220.0000	.739	14	0	0
54	ES	C7	VOLATILES/AIR/GCMS	112TCE	6.000000	220.0000	.721	14	0	0
55	ES	C7	VOLATILES/AIR/GCMS	11DCLE	27.000000	220.0000	.834	14	0	0
56	ES	C7	VOLATILES/AIR/GCMS	12DCE	27.000000	220.0000	.867	14	0	0
57	ES	C7	VOLATILES/AIR/GCMS	12DCLE	26.000000	220.0000	.735	14	0	0
58	ES	C7	VOLATILES/AIR/GCMS	12DMB	19.000000	88.0000	.593	14	0	0
59	ES	C7	VOLATILES/AIR/GCMS	BCHPD	19.000000	220.0000	.692	14	0	0
60	ES	C7	VOLATILES/AIR/GCMS	C6H6	26.000000	220.0000	.734	14	0	0
61	ES	C7	VOLATILES/AIR/GCMS	CCL4	12.000000	220.0000	.746	14	0	0
62	ES	C7	VOLATILES/AIR/GCMS	CH2CL2	11.000000	90.0000	.578	14	0	0
63	ES	C7	VOLATILES/AIR/GCMS	CHCL3	13.000000	220.0000	.746	14	0	0
64	ES	C7	VOLATILES/AIR/GCMS	CLC6H5	29.000000	220.0000	.673	14	0	0
65	ES	C7	VOLATILES/AIR/GCMS	DBCP	40.000000	44.0000	.413	14	0	0
66	ES	C7	VOLATILES/AIR/GCMS	DCPD	19.000000	89.0000	1.27	14	0	0
67	ES	C7	VOLATILES/AIR/GCMS	DMDS	22.000000	220.0000	.734	14	0	0
68	ES	C7	VOLATILES/AIR/GCMS	ETC6H5	20.000000	220.0000	.628	14	0	0
69	ES	C7	VOLATILES/AIR/GCMS	MEC6H5	7.000000	220.0000	.716	14	0	0
70	ES	C7	VOLATILES/AIR/GCMS	MIBK	8.000000	220.0000	.804	14	0	0
71	ES	C7	VOLATILES/AIR/GCMS	TCLEE	18.000000	220.0000	.625	14	0	0
72	ES	C7	VOLATILES/AIR/GCMS	TRCLE	19.000000	220.0000	.625	14	0	0
73	ES	C7	VOLATILES/AIR/GCMS	XYLEN	31.000000	170.0000	.611	14	0	0

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A UNIVERSITY OF TENNESSEE DOCUMENT
DO NOT DUPLICATE

74	ES	CM01	VOLATILES/AIR/GCMS	112TCE	21.000000	220.0000 .739	14	0	0
75	ES	CM01	VOLATILES/AIR/GCMS	112TCF	6.000000	220.0000 .721	14	0	0
76	ES	CM01	VOLATILES/AIR/GCMS	[illegible]	[illegible]	220.0000 .834	14	0	0
77	ES	CM01	VOLATILES/AIR/GCMS	12DCE	27.000000	220.0000 .867	14	0	0
78	ES	CM01	VOLATILES/AIR/GCMS	12DCLE	26.000000	220.0000 .735	14	0	0
79	ES	CM01	VOLATILES/AIR/GCMS	12DMB	19.000000	88.0000 .593	14	0	0
80	ES	CM01	VOLATILES/AIR/GCMS	BCHPD	22.000000	220.0000 .692	14	0	0
81	ES	CM01	VOLATILES/AIR/GCMS	C6H6	26.000000	220.0000 .734	14	0	0
82	ES	CM01	VOLATILES/AIR/GCMS	CCL4	12.000000	220.0000 .746	14	0	0
83	ES	CM01	VOLATILES/AIR/GCMS	CH2CL2	11.000000	90.0000 .578	14	0	0
84	ES	CM01	VOLATILES/AIR/GCMS	CHCL3	13.000000	220.0000 .746	14	0	0
85	ES	CM01	VOLATILES/AIR/GCMS	CLC6H5	29.000000	220.0000 .673	14	0	0
86	ES	CM01	VOLATILES/AIR/GCMS	DBCP	40.000000	44.0000 .413	14	0	0
87	ES	CM01	VOLATILES/AIR/GCMS	DCPD	19.000000	89.0000 1.27	14	0	0
88	ES	CM01	VOLATILES/AIR/GCMS	DMDS	19.000000	220.0000 .734	14	0	0
89	ES	CM01	VOLATILES/AIR/GCMS	ETC6H5	20.000000	220.0000 .628	14	0	0
90	ES	CM01	VOLATILES/AIR/GCMS	MEC6H5	7.000000	220.0000 .716	14	0	0
91	ES	CM01	VOLATILES/AIR/GCMS	MIBK	8.000000	220.0000 .804	14	0	0
92	ES	CM01	VOLATILES/AIR/GCMS	TCLEE	18.000000	220.0000 .582	14	0	0
93	ES	CM01	VOLATILES/AIR/GCMS	TRCLE	19.000000	220.0000 .625	14	0	0
94	ES	CM01	VOLATILES/AIR/GCMS	XYLEN	31.000000	170.0000 .611	14	0	0
95	ES	D7	ORGANICS/AIR/GCMS	ATZ	0.023000	0.7900 .905	14	0	0
96	ES	D7	ORGANICS/AIR/GCMS	DLDRN	0.018000	0.0990 .881	14	0	0
97	ES	D7	ORGANICS/AIR/GCMS	ENDRN	0.015000	0.0990 .581	14	0	0
98	ES	D7	ORGANICS/AIR/GCMS	PPDDE	0.011000	0.0990 .691	14	0	0
99	ES	D7	ORGANICS/AIR/GCMS	PPDDT	0.022000	0.0990 .448	14	0	0
100	ES	D7	ORGANICS/AIR/GCMS	PRTHN	0.046000	0.7900 .956	14	0	0
964	ES	G007	EXPLOSIVES/SURFACE/NONE	XPLOSV	0.360000	0.0000 0	0	0	0
450	ES	H2	PHENOLS/WATER/TECHNICON	PHENLC	7.120000	50.0000 .878	28	0	0
451	ES	J2	METALS/WATER/TECHNICON	CRHEX	2.500000	50.0000 .994	1	0	0
101	ES	JB01	METALS/SOIL/CVAA	HG	0.050000	1.0000 1.02	28	0	0
102	ES	JD02	METALS/SOIL/GFAA	AS	4.700000	50.0000 .964	180	0	0
103	ES	JD03	METALS/SOIL/GFAA	SE	8.300000	50.0000 .742	180	0	0
799	ES	JD15	METALS/SOIL/GFAA	SE	0.250000	10.0000 .757	180	0	0
800	ES	JD16	METALS/SOIL/GFAA	V	0.775000	20.0000 .833	180	0	0
801	ES	JD17	METALS/SOIL/GFAA	PB	0.177000	10.0000 .890	180	0	0
802	ES	JD18	METALS/SOIL/GFAA	AG	0.025000	1.0000 .882	180	0	0
803	ES	JD19	METALS/SOIL/GFAA	AS	0.250000	10.0000 .842	180	0	0
963	ES	JD24	METALS/SOIL/FURNACE	TL	0.319000	10.0000 .864	180	0	0
967	ES	JD25	METALS/SOIL/FURNACE	SB	1.090000	20.0000 .849	180	0	0
104	ES	JS01	METALS/SOIL/ICP	AG	6.020000	50.0000 1.04	180	0	0
453	ES	JS01	METALS/SOIL/ICP	BA	0.863000	200.0000 1.01	180	0	0
105	ES	JS01	METALS/SOIL/ICP	BE	5.100000	50.0000 .867	180	0	0
106	ES	JS01	METALS/SOIL/ICP	CD	3.490000	50.0000 1.09	180	0	0
107	ES	JS01	METALS/SOIL/ICP	CR	7.720000	50.0000 1.07	180	0	0
108	ES	JS01	METALS/SOIL/ICP	CU	6.560000	50.0000 .929	180	0	0
109	ES	JS01	METALS/SOIL/ICP	NI	5.410000	50.0000 .927	180	0	0
110	ES	JS01	METALS/SOIL/ICP	PB	6.810000	50.0000 .952	180	0	0
452	ES	JS01	METALS/SOIL/ICP	SB	4.640000	200.0000 .954	180	0	0
111	ES	JS01	METALS/SOIL/ICP	TL	12.300000	50.0000 .860	180	0	0
112	ES	JS01	METALS/SOIL/ICP	ZN	12.400000	50.0000 .936	180	0	0
876	ES	JS11	METALS/SOIL/ICP	AG	2.500000	50.0000 .965	180	0	0
877	ES	JS11	METALS/SOIL/ICP	AL	14.100000	50000.0000 .891	180	0	0
878	ES	JS11	METALS/SOIL/ICP	B	32.700000	200.0000 .602	180	0	0
879	ES	JS11	METALS/SOIL/ICP	BA	29.600000	200.0000 .629	180	0	0
880	ES	JS11	METALS/SOIL/ICP	BE	1.860000	20.0000 .739	180	0	0
881	ES	JS11	METALS/SOIL/ICP	BI	31.500000	5000.0000 .725	180	0	0
882	ES	JS11	METALS/SOIL/ICP	CA	59.000000	50000.0000 .947	180	0	0
883	ES	JS11	METALS/SOIL/ICP	CD	3.050000	20.0000 .826	180	0	0
884	ES	JS11	METALS/SOIL/ICP	CO	15.000000	5000.0000 .608	180	0	0
885	ES	JS11	METALS/SOIL/ICP	CR	12.700000	5000.0000 .613	180	0	0
886	ES	JS11	METALS/SOIL/ICP	CU	58.600000	5000.0000 .675	180	0	0
887	ES	JS11	METALS/SOIL/ICP	FE	50.000000	50000.0000 .938	180	0	0
888	ES	JS11	METALS/SOIL/ICP	K	37.500000	5000.0000 .733	180	0	0
889	ES	JS11	METALS/SOIL/ICP	MG	50.000000	50000.0000 .988	180	0	0
890	ES	JS11	METALS/SOIL/ICP	MN	0.275000	5000.0000 .642	180	0	0
891	ES	JS11	METALS/SOIL/ICP	MO	1.150000	5000.0000 .650	180	0	0
892	ES	JS11	METALS/SOIL/ICP	NA	150.000000	5000.0000 .703	180	0	0
893	ES	JS11	METALS/SOIL/ICP	NI	12.600000	5000.0000 .593	180	0	0
894	ES	JS11	METALS/SOIL/ICP	PB	6.620000	5000.0000 1.05	180	0	0
895	ES	JS11	METALS/SOIL/ICP	SB	3.800000	5000.0000 .581	180	0	0
896	ES	JS11	METALS/SOIL/ICP	SE	9.530000	5000.0000 .600	180	0	0
897	ES	JS11	METALS/SOIL/ICP	TE	54.200000	5000.0000 .628	180	0	0
898	ES	JS11	METALS/SOIL/ICP	TL	31.300000	5000.0000 .580	180	0	0
899	ES	JS11	METALS/SOIL/ICP	V	13.000000	5000.0000 .650	180	0	0
900	ES	JS11	METALS/SOIL/ICP	ZN	30.200000	5000.0000 .573	180	0	0
965	ES	JS16	METALS/SOIL/ICP	AG	0.589000	10.0000 1.03	180	0	0
1017	ES	JS16	METALS/SOIL/ICP	AL	2.350000	50000.0000 1.01	180	0	0
1018	ES	JS16	METALS/SOIL/ICP	AL	2.350000	50000.0000 1.01	180	0	0
966	ES	JS16	METALS/SOIL/ICP	AS	5.710000	5000.0000 .933	180	0	0
967	ES	JS16	METALS/SOIL/ICP	B	5.910000	5000.0000 .901	180	0	0
968	ES	JS16	METALS/SOIL/ICP	BA	5.180000	2500.0000 .947	180	0	0
969	ES	JS16	METALS/SOIL/ICP	BE	0.500000	1000.0000 .956	180	0	0
970	ES	JS16	METALS/SOIL/ICP	BI	52.800000	2500.0000 .964	180	0	0

[illegible] INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE [illegible] THIS DOCUMENT

THIS IS A CONTROLLED COPY
DO NOT DUPLICATE

1012	ES	JS16	METALS/SOIL/ICP	ACA	100.000000	50000.0000	.965	180	0	0
971	ES	JS16	METALS/SOIL/ICP	CD	0.700000	1000.0000	.920	180	0	0
972	ES	JS16	METALS/SOIL/ICP	CO	1.120000	1000.0000	.906	180	0	0
973	ES	JS16	METALS/SOIL/ICP	CR	4.050000	5000.0000	.876	180	0	0
974	ES	JS16	METALS/SOIL/ICP	CU	0.965000	2500.0000	.958	180	0	0
1014	ES	JS16	METALS/SOIL/ICP	FE	3.680000	50000.0000	.970	180	0	0
1013	ES	JS16	METALS/SOIL/ICP	K	100.000000	50000.0000	.968	180	0	0
1015	ES	JS16	METALS/SOIL/ICP	MG	100.000000	50000.0000	.940	180	0	0
975	ES	JS16	METALS/SOIL/ICP	MN	2.050000	5000.0000	.899	180	0	0
976	ES	JS16	METALS/SOIL/ICP	MO	1.120000	1000.0000	.922	180	0	0
1016	ES	JS16	METALS/SOIL/ICP	NA	100.000000	50000.0000	.972	180	0	0
978	ES	JS16	METALS/SOIL/ICP	NI	1.710000	5000.0000	.870	180	0	0
979	ES	JS16	METALS/SOIL/ICP	PB	10.500000	5000.0000	.901	180	0	0
980	ES	JS16	METALS/SOIL/ICP	SB	7.140000	5000.0000	.878	180	0	0
981	ES	JS16	METALS/SOIL/ICP	SE	2.420000	5000.0000	.929	180	0	0
982	ES	JS16	METALS/SOIL/ICP	TE	10.700000	1000.0000	.904	180	0	0
983	ES	JS16	METALS/SOIL/ICP	TL	6.620000	5000.0000	.857	180	0	0
984	ES	JS16	METALS/SOIL/ICP	V	3.390000	1000.0000	.928	180	0	0
985	ES	JS16	METALS/SOIL/ICPP	ZN	8.030000	5000.0000	.888	180	0	0
946	ES	JY02	INORGANIC/SOIL/SPECTRO	CRHEX	0.514000	5.0000	.880	1	0	0
113	ES	K8	ANIONS/WATER/TECHNICON	NIT	10.000000	200.0000	1.00	28	0	0
448	ES	KF10	ANIONS/SOIL/TECHNICON	NIT	0.600000	12.0000	1.08	28	0	0
942	ES	KF14	INORGANIC/SOIL/TECHNICON	TPO4	7.490000	100.0000	.953	28	0	0
911	ES	KT05	ANIONS/SOIL/IONCHROM	BR	5.000000	200.0000	.957	28	0	0
910	ES	KT05	ANIONS/SOIL/IONCHROM	CL	6.050000	204.0000	.994	28	0	0
908	ES	KT05	ANIONS/SOIL/IONCHROM	F	3.620000	51.2000	.871	28	0	0
909	ES	KT05	ANIONS/SOIL/IONCHROM	SO4	90.400000	512.0000	.904	28	0	0
114	ES	KY01	CYANIDE/SOIL/TECHNICON	CYN	0.920000	10.0000	.924	14	0	0
115	ES	L6	METALS/WATER/CVAA	HG	0.242000	10.0000	1.03	28	0	0
476	ES	LF03	EXPLOSIVES/SOIL/TECHNICON	NC	10.400000	125.0000	.533	0	40	1
116	ES	LG01	HALOCARBONS/SOIL/GCCON	111TCE	0.120000	0.9800	1.08	0	7	40
117	ES	LG01	HALOCARBONS/SOIL/GCCON	112TCE	0.120000	1.0000	1.09	0	7	40
118	ES	LG01	HALOCARBONS/SOIL/GCCON	11DCE	0.120000	0.9400	1.12	0	7	40
119	ES	LG01	HALOCARBONS/SOIL/GCCON	11DCLE	0.130000	0.9700	1.09	0	7	40
120	ES	LG01	HALOCARBONS/SOIL/GCCON	12DCE	0.150000	1.0200	1.16	0	7	40
121	ES	LG01	HALOCARBONS/SOIL/GCCON	12DCLE	0.080000	1.0000	1.10	0	7	40
122	ES	LG01	HALOCARBONS/SOIL/GCCON	CCL4	0.120000	1.0300	1.00	0	7	40
123	ES	LG01	HALOCARBONS/SOIL/GCCON	CH2CL2	0.150000	0.9900	1.10	0	7	40
124	ES	LG01	HALOCARBONS/SOIL/GCCON	CHCL3	0.100000	1.0400	1.04	0	7	40
125	ES	LG01	HALOCARBONS/SOIL/GCCON	CLC6H5	0.180000	1.0200	1.11	0	7	40
126	ES	LG01	HALOCARBONS/SOIL/GCCON	TCLEE	0.120000	1.0100	1.03	0	7	40
127	ES	LG01	HALOCARBONS/SOIL/GCCON	TRCLE	0.090000	1.0000	1.06	0	7	40
128	ES	LH02	HALOCARBONS/SOIL/GCCON	TRCLE	0.023000	2.0000	1.02	0	7	40
696	ES	LH10	PESTICIDES/SOIL/GCEC	ABHC	0.009070	0.0270	.919	0	7	40
703	ES	LH10	PESTICIDES/SOIL/GCEC	AENSLF	0.006020	0.0244	1.03	0	7	40
701	ES	LH10	PESTICIDES/SOIL/GCEC	ALDRN	0.007290	0.0257	.988	0	7	40
700	ES	LH10	PESTICIDES/SOIL/GCEC	BBHC	0.002570	0.0254	.975	0	7	40
708	ES	LH10	PESTICIDES/SOIL/GCEC	BENSLF	0.006630	0.0244	1.10	0	7	40
904	ES	LH10	PESTICIDES/SOIL/GCEC	CLDAN	0.017700	0.1970	.839	0	7	40
698	ES	LH10	PESTICIDES/SOIL/GCEC	DBHC	0.005550	0.0252	1.28	0	7	40
705	ES	LH10	PESTICIDES/SOIL/GCEC	DLDRN	0.006290	0.0254	1.04	0	7	40
706	ES	LH10	PESTICIDES/SOIL/GCEC	ENDRN	0.006570	0.0252	1.09	0	7	40
710	ES	LH10	PESTICIDES/SOIL/GCEC	ENDRNA	0.024000	0.0302	.871	0	7	40
711	ES	LH10	PESTICIDES/SOIL/GCEC	ESFSO4	0.007630	0.0286	1.06	0	7	40
699	ES	LH10	PESTICIDES/SOIL/GCEC	HPCL	0.006180	0.0262	1.04	0	7	40
702	ES	LH10	PESTICIDES/SOIL/GCEC	HPCLE	0.006200	0.0260	1.04	0	7	40
903	ES	LH10	PESTICIDES/SOIL/GCEC	ISODR	0.004610	0.0412	.941	0	7	40
697	ES	LH10	PESTICIDES/SOIL/GCEC	LIN	0.006380	0.0262	1.03	0	7	40
712	ES	LH10	PESTICIDES/SOIL/GCEC	MEXCLR	0.071100	0.2490	1.20	0	7	40
707	ES	LH10	PESTICIDES/SOIL/GCEC	PPDDD	0.008260	0.0246	1.11	0	7	40
704	ES	LH10	PESTICIDES/SOIL/GCEC	PPDDE	0.007650	0.0286	1.06	0	7	40
709	ES	LH10	PESTICIDES/SOIL/GCEC	PPDDT	0.007070	0.0281	1.01	0	7	40
713	ES	LH10	PESTICIDES/SOIL/GCEC	TXPHEN	0.444000	1.1200	1.35	0	7	40
736	ES	LH11	HERBICIDES/SOIL/HPLC	245TP	0.008500	0.1090	.907	0	7	40
735	ES	LH11	HERBICIDES/SOIL/HPLC	24D	0.017700	0.2020	1.08	0	7	40
936	ES	LH16	PESTICIDES/SOIL/GCEC	PCB016	0.066600	0.3670	1.18	0	7	40
937	ES	LH16	PESTICIDES/SOIL/GCEC	PCB260	0.080400	0.4070	1.06	0	7	40
796	ES	LL03	ORGANOSULFURS/SOIL/GCFP	BTZ	1.080000	13.2000	.788	0	7	40
795	ES	LL03	ORGANOSULFURS/SOIL/GCFP	CPMS	1.080000	21.6000	.999	0	7	40
797	ES	LL03	ORGANOSULFURS/SOIL/GCFP	CPMSO	2.250000	45.0000	1.02	0	7	40
798	ES	LL03	ORGANOSULFURS/SOIL/GCFP	CPMSO2	2.370000	47.4000	.790	0	7	40
794	ES	LL03	ORGANOSULFURS/SOIL/GCFP	DITH	1.470000	11.4000	.916	0	7	40
792	ES	LL03	ORGANOSULFURS/SOIL/GCFP	DMDS	0.692000	13.8000	.946	0	7	40
793	ES	LL03	ORGANOSULFURS/SOIL/GCFP	OXAT	0.856000	17.1000	.930	0	7	40
129	ES	LM02	VOLATILES/SOIL/GCMS	111TCE	0.250000	25.0000	.955	0	7	40
130	ES	LM02	VOLATILES/SOIL/GCMS	112TCE	0.250000	25.0000	1.01	0	7	40
131	ES	LM02	VOLATILES/SOIL/GCMS	11DCLE	0.250000	25.0000	1.02	0	7	40
132	ES	LM02	VOLATILES/SOIL/GCMS	12DCD4	0.850000	25.0000	1.02	0	7	40
133	ES	LM02	VOLATILES/SOIL/GCMS	12DCE	0.250000	25.0000	1.00	0	7	40
134	ES	LM02	VOLATILES/SOIL/GCMS	12DCLE	0.280000	25.0000	1.02	0	7	40
135	ES	LM02	VOLATILES/SOIL/GCMS	13DMB	0.250000	25.0000	1.05	0	7	40
136	ES	LM02	VOLATILES/SOIL/GCMS	BCHPD	0.250000	25.0000	1.05	0	7	40
137	ES	LM02	VOLATILES/SOIL/GCMS	C6H6	0.250000	25.0000	1.06	0	7	40
138	ES	LM02	VOLATILES/SOIL/GCMS	CCL4	0.250000	25.0000	1.03	0	7	40

THE INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

DO NOT DUPLICATE

139	ES	LM02	VOLATILES/SOIL/GCMS	CD2CL2	1.100000	25.0000	.995	0	7	40
140	ES	LM02	VOLATILES/SOIL/GCMS	CHZCL2	0.250000	25.0000	.964	0	7	40
141	ES	LM02	VOLATILES/SOIL/GCMS	CHCL3	0.250000	25.0000	1.06	0	7	40
142	ES	LM02	VOLATILES/SOIL/GCMS	CLC6H5	0.250000	25.0000	1.04	0	7	40
143	ES	LM02	VOLATILES/SOIL/GCMS	DBCP	0.330000	25.0000	.980	0	7	40
144	ES	LM02	VOLATILES/SOIL/GCMS	DCPD	0.270000	26.5000	1.07	0	7	40
145	ES	LM02	VOLATILES/SOIL/GCMS	DMDS	0.250000	25.0000	1.03	0	7	40
146	ES	LM02	VOLATILES/SOIL/GCMS	ETBD10	0.730000	25.0000	1.06	0	7	40
147	ES	LM02	VOLATILES/SOIL/GCMS	ETC6H5	0.250000	25.0000	1.06	0	7	40
148	ES	LM02	VOLATILES/SOIL/GCMS	MEC6H5	0.250000	25.0000	1.05	0	7	40
149	ES	LM02	VOLATILES/SOIL/GCMS	MIBK	0.500000	25.0000	.935	0	7	40
150	ES	LM02	VOLATILES/SOIL/GCMS	TCLEE	0.250000	25.0000	1.04	0	7	40
151	ES	LM02	VOLATILES/SOIL/GCMS	TRCLE	0.250000	25.0000	1.03	0	7	40
152	ES	LM02	VOLATILES/SOIL/GCMS	XYLEN	0.500000	50.0000	1.09	0	7	40
153	ES	LM03	ORGANICS/SOIL/GCMS	13DBD4	0.280000	100.0000	.919	0	7	40
154	ES	LM03	ORGANICS/SOIL/GCMS	2CLPD4	0.340000	25.0000	1.04	0	7	40
155	ES	LM03	ORGANICS/SOIL/GCMS	ALDRN	0.940000	100.0000	.877	0	7	40
156	ES	LM03	ORGANICS/SOIL/GCMS	ATZ	0.730000	100.0000	1.02	0	7	40
157	ES	LM03	ORGANICS/SOIL/GCMS	CL6CP	1.100000	50.0000	1.17	0	7	40
158	ES	LM03	ORGANICS/SOIL/GCMS	CLDAN	1.000000	100.0000	.937	0	7	40
159	ES	LM03	ORGANICS/SOIL/GCMS	CPMS	0.250000	50.0000	1.04	0	7	40
160	ES	LM03	ORGANICS/SOIL/GCMS	CPMSO	0.350000	50.0000	.972	0	7	40
161	ES	LM03	ORGANICS/SOIL/GCMS	CPMSO2	0.290000	100.0000	.898	0	7	40
162	ES	LM03	ORGANICS/SOIL/GCMS	DBCP	0.330000	50.0000	1.03	0	7	40
163	ES	LM03	ORGANICS/SOIL/GCMS	DCPD	0.260000	25.0000	1.04	0	7	40
164	ES	LM03	ORGANICS/SOIL/GCMS	DDVP	0.250000	25.0000	.722	0	7	40
165	ES	LM03	ORGANICS/SOIL/GCMS	DEPD4	0.250000	50.0000	.958	0	7	40
166	ES	LM03	ORGANICS/SOIL/GCMS	DIMP	0.500000	10.0000	1.13	0	7	40
167	ES	LM03	ORGANICS/SOIL/GCMS	DITH	0.250000	100.0000	.926	0	7	40
168	ES	LM03	ORGANICS/SOIL/GCMS	DLDRN	0.250000	100.0000	.984	0	7	40
169	ES	LM03	ORGANICS/SOIL/GCMS	DMMP	1.500000	10.0000	1.07	0	7	40
170	ES	LM03	ORGANICS/SOIL/GCMS	DNOPD4	0.570000	100.0000	1.09	0	7	40
171	ES	LM03	ORGANICS/SOIL/GCMS	ENDRN	0.700000	50.0000	1.00	0	7	40
172	ES	LM03	ORGANICS/SOIL/GCMS	ISODR	0.330000	100.0000	.939	0	7	40
173	ES	LM03	ORGANICS/SOIL/GCMS	MLTHN	0.590000	2.5000	1.07	0	7	40
174	ES	LM03	ORGANICS/SOIL/GCMS	OXAT	0.270000	100.0000	.956	0	7	40
175	ES	LM03	ORGANICS/SOIL/GCMS	PPDDE	0.290000	100.0000	.877	0	7	40
176	ES	LM03	ORGANICS/SOIL/GCMS	PPDDT	0.370000	100.0000	1.12	0	7	40
177	ES	LM03	ORGANICS/SOIL/GCMS	PRTHN	0.630000	100.0000	1.06	0	7	40
178	ES	LM03	ORGANICS/SOIL/GCMS	SUPONA	0.490000	10.0000	1.12	0	7	40
691	ES	LM18	ORGANICS/SOIL/GCMS	124TCB	0.040000	13.0000	.801	0	7	40
692	ES	LM18	ORGANICS/SOIL/GCMS	12DCLB	0.110000	13.0000	.734	0	7	40
694	ES	LM18	ORGANICS/SOIL/GCMS	13DCLB	0.130000	13.0000	.724	0	7	40
695	ES	LM18	ORGANICS/SOIL/GCMS	14DCLB	0.098000	13.0000	.715	0	7	40
659	ES	LM18	ORGANICS/SOIL/GCMS	245TCP	0.100000	13.0000	.897	0	7	40
631	ES	LM18	ORGANICS/SOIL/GCMS	246TBP	0.380000	13.0000	.910	0	7	40
591	ES	LM18	ORGANICS/SOIL/GCMS	246TCP	0.170000	13.0000	.948	0	7	40
674	ES	LM18	ORGANICS/SOIL/GCMS	24DCLP	0.180000	13.0000	.909	0	7	40
672	ES	LM18	ORGANICS/SOIL/GCMS	24DMPN	0.690000	1.3000	.917	0	7	40
675	ES	LM18	ORGANICS/SOIL/GCMS	24DNP	1.200000	6.7000	.816	0	7	40
693	ES	LM18	ORGANICS/SOIL/GCMS	24DNT	0.140000	13.0000	.936	0	7	40
599	ES	LM18	ORGANICS/SOIL/GCMS	26DNT	0.085000	13.0000	.954	0	7	40
641	ES	LM18	ORGANICS/SOIL/GCMS	2CLP	0.060000	13.0000	.745	0	7	40
667	ES	LM18	ORGANICS/SOIL/GCMS	2CNAP	0.036000	13.0000	.847	0	7	40
661	ES	LM18	ORGANICS/SOIL/GCMS	2FBP	0.021000	6.7000	.903	0	7	40
664	ES	LM18	ORGANICS/SOIL/GCMS	2FP	0.170000	13.0000	.744	0	7	40
670	ES	LM18	ORGANICS/SOIL/GCMS	2MNAP	0.049000	6.7000	.828	0	7	40
663	ES	LM18	ORGANICS/SOIL/GCMS	2MP	0.029000	1.3000	.490	0	7	40
660	ES	LM18	ORGANICS/SOIL/GCMS	2NANIL	0.062000	13.0000	.865	0	7	40
633	ES	LM18	ORGANICS/SOIL/GCMS	2NP	0.140000	13.0000	.915	0	7	40
682	ES	LM18	ORGANICS/SOIL/GCMS	33DCBD	6.300000	13.0000	.633	0	7	40
644	ES	LM18	ORGANICS/SOIL/GCMS	3NANIL	0.450000	13.0000	.909	0	7	40
668	ES	LM18	ORGANICS/SOIL/GCMS	46DN2C	0.550000	13.0000	1.06	0	7	40
687	ES	LM18	ORGANICS/SOIL/GCMS	4BRPPE	0.033000	6.7000	.921	0	7	40
666	ES	LM18	ORGANICS/SOIL/GCMS	4CANIL	0.810000	3.3000	.517	0	7	40
679	ES	LM18	ORGANICS/SOIL/GCMS	4CL3C	0.095000	13.0000	.894	0	7	40
636	ES	LM18	ORGANICS/SOIL/GCMS	4CLPPE	0.033000	13.0000	.826	0	7	40
656	ES	LM18	ORGANICS/SOIL/GCMS	4MP	0.240000	1.3000	.439	0	7	40
657	ES	LM18	ORGANICS/SOIL/GCMS	4NANIL	0.410000	13.0000	.739	0	7	40
652	ES	LM18	ORGANICS/SOIL/GCMS	4NP	1.400000	13.0000	.921	0	7	40
634	ES	LM18	ORGANICS/SOIL/GCMS	ANAPNE	0.036000	13.0000	.826	0	7	40
638	ES	LM18	ORGANICS/SOIL/GCMS	ANAPYL	0.033000	6.7000	.881	0	7	40
639	ES	LM18	ORGANICS/SOIL/GCMS	ANTRC	0.033000	13.0000	.870	0	7	40
632	ES	LM18	ORGANICS/SOIL/GCMS	B2CEXM	6.059000	13.0000	.863	0	7	40
685	ES	LM18	ORGANICS/SOIL/GCMS	B2CIPE	0.200000	13.0000	.819	0	7	40
686	ES	LM18	ORGANICS/SOIL/GCMS	B2CLEE	0.033000	6.7000	.802	0	7	40
688	ES	LM18	ORGANICS/SOIL/GCMS	B2EHP	0.620000	13.0000	.974	0	7	40
642	ES	LM18	ORGANICS/SOIL/GCMS	BAANTR	0.170000	13.0000	1.06	0	7	40
643	ES	LM18	ORGANICS/SOIL/GCMS	BAPYR	0.250000	13.0000	.840	0	7	40
645	ES	LM18	ORGANICS/SOIL/GCMS	BBFANT	0.210000	3.3000	.785	0	7	40
673	ES	LM18	ORGANICS/SOIL/GCMS	BBZP	0.170000	6.7000	.963	0	7	40
647	ES	LM18	ORGANICS/SOIL/GCMS	BGHIPY	0.250000	3.3000	1.02	0	7	40
648	ES	LM18	ORGANICS/SOIL/GCMS	BKFANT	0.066000	0.6700	.964	0	7	40
665	ES	LM18	ORGANICS/SOIL/GCMS	BZALC	0.190000	13.0000	.963	0	7	40

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

635	ES	LM18	ORGANICS/SOIL/GCMS	CHRY	0.120000	6.7000	.816	0	7	40
690	ES	LM18	ORGANICS/SOIL/GCMS	CL6BZ	0.033000	6.7000	.907	0	7	40
649	ES	LM18	ORGANICS/SOIL/GCMS	CL6CP	0.270000	13.0000	.131	0	7	40
655	ES	LM18	ORGANICS/SOIL/GCMS	CL6ET	0.150000	13.0000	.716	0	7	40
654	ES	LM18	ORGANICS/SOIL/GCMS	DBAHA	0.210000	13.0000	.999	0	7	40
637	ES	LM18	ORGANICS/SOIL/GCMS	DBZFUR	0.035000	6.7000	.901	0	7	40
677	ES	LM18	ORGANICS/SOIL/GCMS	DEP	0.240000	6.7000	.927	0	7	40
669	ES	LM18	ORGANICS/SOIL/GCMS	DMP	0.170000	13.0000	.890	0	7	40
681	ES	LM18	ORGANICS/SOIL/GCMS	DNBP	0.061000	3.3000	.935	0	7	40
590	ES	LM18	ORGANICS/SOIL/GCMS	DNOP	0.190000	6.7000	.712	0	7	40
650	ES	LM18	ORGANICS/SOIL/GCMS	FANT	0.068000	13.0000	.863	0	7	40
671	ES	LM18	ORGANICS/SOIL/GCMS	FLRENE	0.033000	13.0000	.856	0	7	40
680	ES	LM18	ORGANICS/SOIL/GCMS	HCBD	0.230000	13.0000	.747	0	7	40
640	ES	LM18	ORGANICS/SOIL/GCMS	ICDPYR	0.290000	13.0000	.948	0	7	40
689	ES	LM18	ORGANICS/SOIL/GCMS	ISOPHR	0.033000	13.0000	.833	0	7	40
676	ES	LM18	ORGANICS/SOIL/GCMS	NAP	0.037000	3.3000	.858	0	7	40
653	ES	LM18	ORGANICS/SOIL/GCMS	NB	0.045000	13.0000	.840	0	7	40
684	ES	LM18	ORGANICS/SOIL/GCMS	NBD5	0.025000	6.7000	.858	0	7	40
646	ES	LM18	ORGANICS/SOIL/GCMS	NNDNPA	0.200000	13.0000	.849	0	7	40
586	ES	LM18	ORGANICS/SOIL/GCMS	NNDPA	0.190000	13.0000	.848	0	7	40
651	ES	LM18	ORGANICS/SOIL/GCMS	PCP	1.300000	6.7000	.790	0	7	40
662	ES	LM18	ORGANICS/SOIL/GCMS	PHANTR	0.033000	13.0000	.969	0	7	40
592	ES	LM18	ORGANICS/SOIL/GCMS	PHEND6	0.230000	13.0000	.824	0	7	40
658	ES	LM18	ORGANICS/SOIL/GCMS	PHENOL	0.110000	3.3000	.811	0	7	40
674	ES	LM18	ORGANICS/SOIL/GCMS	PYR	0.033000	3.3000	.845	0	7	40
663	ES	LM18	ORGANICS/SOIL/GCMS	TRPD14	0.340000	6.7000	1.07	0	7	40
597	ES	LM19	VOLATILES/SOIL/GCMS	111TCE	0.004400	0.2000	1.20	14	0	0
598	ES	LM19	VOLATILES/SOIL/GCMS	112TCE	0.005400	0.2000	1.10	14	0	0
630	ES	LM19	VOLATILES/SOIL/GCMS	11DCE	0.003900	0.1000	1.07	14	0	0
628	ES	LM19	VOLATILES/SOIL/GCMS	11DCLE	0.002300	0.2000	1.03	14	0	0
608	ES	LM19	VOLATILES/SOIL/GCMS	12DCD4	0.003200	0.2000	.995	14	0	0
600	ES	LM19	VOLATILES/SOIL/GCMS	12DCE	0.003000	0.1000	.986	14	0	0
629	ES	LM19	VOLATILES/SOIL/GCMS	12DCLE	0.001700	0.2000	1.02	14	0	0
593	ES	LM19	VOLATILES/SOIL/GCMS	12DCLP	0.002900	0.2000	1.10	14	0	0
[illegible]	ES	LM19	VOLATILES/SOIL/GCMS	4BFB	0.002900	0.2000	.924	14	0	0
596	ES	LM19	VOLATILES/SOIL/GCMS	ACET	0.017000	0.1000	.970	14	0	0
606	ES	LM19	VOLATILES/SOIL/GCMS	BRDCLM	0.002900	0.2000	1.18	14	0	0
620	ES	LM19	VOLATILES/SOIL/GCMS	C13DCP	0.003200	0.2480	1.13	14	0	0
601	ES	LM19	VOLATILES/SOIL/GCMS	C2AVE	0.003200	0.1000	1.37	14	0	0
604	ES	LM19	VOLATILES/SOIL/GCMS	C2H3CL	0.006200	0.2000	1.09	14	0	0
618	ES	LM19	VOLATILES/SOIL/GCMS	C2H5CL	0.012000	0.2000	1.05	14	0	0
605	ES	LM19	VOLATILES/SOIL/GCMS	C6H6	0.001500	0.2000	1.02	14	0	0
599	ES	LM19	VOLATILES/SOIL/GCMS	CCL3F	0.005900	0.1000	1.17	14	0	0
614	ES	LM19	VOLATILES/SOIL/GCMS	CCL4	0.007000	0.2000	1.27	14	0	0
595	ES	LM19	VOLATILES/SOIL/GCMS	CH2CL2	0.012000	0.2000	.988	14	0	0
610	ES	LM19	VOLATILES/SOIL/GCMS	CH3BR	0.005700	0.2000	.891	14	0	0
623	ES	LM19	VOLATILES/SOIL/GCMS	CH3CL	0.008800	0.1000	.882	14	0	0
607	ES	LM19	VOLATILES/SOIL/GCMS	CHBR3	0.006900	0.2000	1.33	14	0	0
619	ES	LM19	VOLATILES/SOIL/GCMS	CHCL3	0.000870	0.2000	1.03	14	0	0
615	ES	LM19	VOLATILES/SOIL/GCMS	CLC6H5	0.000860	0.2000	1.07	14	0	0
612	ES	LM19	VOLATILES/SOIL/GCMS	CS2	0.004400	0.1000	.993	14	0	0
626	ES	LM19	VOLATILES/SOIL/GCMS	DBRCLM	0.003100	0.2000	1.23	14	0	0
621	ES	LM19	VOLATILES/SOIL/GCMS	ETC6H5	0.001700	0.2000	1.03	14	0	0
609	ES	LM19	VOLATILES/SOIL/GCMS	MEC6D8	0.001500	0.2000	.999	14	0	0
602	ES	LM19	VOLATILES/SOIL/GCMS	MEC6H5	0.000780	0.2000	1.02	14	0	0
611	ES	LM19	VOLATILES/SOIL/GCMS	MEK	0.070000	0.2000	1.14	14	0	0
624	ES	LM19	VOLATILES/SOIL/GCMS	MIBK	0.027000	0.1000	1.30	14	0	0
622	ES	LM19	VOLATILES/SOIL/GCMS	MNBK	0.032000	0.1000	1.24	14	0	0
617	ES	LM19	VOLATILES/SOIL/GCMS	STYR	0.002600	0.2000	1.03	14	0	0
594	ES	LM19	VOLATILES/SOIL/GCMS	T13DCP	0.002800	0.1520	1.15	14	0	0
625	ES	LM19	VOLATILES/SOIL/GCMS	TCLEA	0.002400	0.2000	1.13	14	0	0
627	ES	LM19	VOLATILES/SOIL/GCMS	TCLEE	0.000810	0.2000	1.03	14	0	0
603	ES	LM19	VOLATILES/SOIL/GCMS	TRCLE	0.002800	0.2000	1.16	14	0	0
613	ES	LM19	VOLATILES/SOIL/GCMS	XYLEN	0.001500	0.2000	1.01	14	0	0
749	ES	LN01	NITROSAMINES/SOIL/GCNP	24DNT	0.092000	1.0000	.737	0	7	40
748	ES	LN01	NITROSAMINES/SOIL/GCNP	26DNT	0.055800	1.0000	.736	0	7	40
751	ES	LN01	NITROSAMINES/SOIL/GCNP	NB	0.096200	5.0000	.751	0	7	40
746	ES	LN01	NITROSAMINES/SOIL/GCNP	NNDMEA	0.108000	0.5000	.330	0	7	40
750	ES	LN01	NITROSAMINES/SOIL/GCNP	NNDNPA	0.231000	1.0000	.561	0	7	40
747	ES	LN01	NITROSAMINES/SOIL/GCNP	NNDPA	0.163000	5.0000	.938	0	7	40
916	ES	LN05	NP-PESTICIDES/SOIL/GCFP	ATZ	0.250000	2.0000	1.12	0	7	40
919	ES	LN05	NP-PESTICIDES/SOIL/GCFP	DDVP	0.452000	5.0000	1.02	0	7	40
917	ES	LN05	NP-PESTICIDES/SOIL/GCFP	MLTHN	0.580000	5.0000	1.17	0	7	40
918	ES	LN05	NP-PESTICIDES/SOIL/GCFP	PRTHN	0.733000	5.0000	1.23	0	7	40
920	ES	LN05	NP-PESTICIDES/SOIL/GCFP	SUPONA	0.250000	5.0000	1.28	0	7	40
805	ES	LO02	VOLATILES/SOIL/GCDUAL	111TCE	0.040000	5.0000	.988	14	0	0
806	ES	LO02	VOLATILES/SOIL/GCDUAL	112TCE	0.081000	5.0000	.957	14	0	0
807	ES	LO02	VOLATILES/SOIL/GCDUAL	11DCE	0.051000	5.0000	.941	14	0	0
808	ES	LO02	VOLATILES/SOIL/GCDUAL	11DCLE	0.055000	5.0000	.948	14	0	0
812	ES	LO02	VOLATILES/SOIL/GCDUAL	12DCLE	0.071000	5.0000	.902	14	0	0
813	ES	LO02	VOLATILES/SOIL/GCDUAL	12DCLP	0.043000	5.0000	1.00	14	0	0
814	ES	LO02	VOLATILES/SOIL/GCDUAL	13DCLB	0.032000	5.0000	1.01	14	0	0
815	ES	LO02	VOLATILES/SOIL/GCDUAL	13DMB	0.056000	5.0000	1.01	14	0	0
[illegible]	ES	LO02	VOLATILES/SOIL/GCDUAL	2CLEVE	0.075000	5.0000	.799	14	0	0

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

818	ES	LO02	VOLATILES/SOIL/GCDUAL	BRDCLM	0.047000	5.0000	.921	14	0	0
819	ES	LO02	VOLATILES/SOIL/GCDUAL	C13DCP	0.062000	5.0000	.860	14	0	0
820	ES	LO02	VOLATILES/SOIL/GCDUAL	C2H3CL	0.031000	5.0000	.921	14	0	0
821	ES	LO02	VOLATILES/SOIL/GCDUAL	C2H5CL	0.029000	5.0000	.961	14	0	0
822	ES	LO02	VOLATILES/SOIL/GCDUAL	C6H6	0.085000	5.0000	.952	14	0	0
810	ES	LO02	VOLATILES/SOIL/GCDUAL	CCL2F2	0.032000	5.0000	.921	14	0	0
865	ES	LO02	VOLATILES/SOIL/GCDUAL	CCL3F	0.037000	5.0000	.929	14	0	0
823	ES	LO02	VOLATILES/SOIL/GCDUAL	CCL4	0.044000	5.0000	.965	14	0	0
811	ES	LO02	VOLATILES/SOIL/GCDUAL	CH2CL2	0.083000	5.0000	.956	14	0	0
809	ES	LO02	VOLATILES/SOIL/GCDUAL	CH3BR	0.031000	5.0000	.899	14	0	0
824	ES	LO02	VOLATILES/SOIL/GCDUAL	CH3CL	0.180000	5.0000	.933	14	0	0
825	ES	LO02	VOLATILES/SOIL/GCDUAL	CHBR3	0.031000	5.0000	.856	14	0	0
826	ES	LO02	VOLATILES/SOIL/GCDUAL	CHCL3	0.038000	5.0000	.969	14	0	0
816	ES	LO02	VOLATILES/SOIL/GCDUAL	CL2BZ	0.060000	10.0000	.990	14	0	0
827	ES	LO02	VOLATILES/SOIL/GCDUAL	CLC6H5	0.026000	5.0000	.925	14	0	0
829	ES	LO02	VOLATILES/SOIL/GCDUAL	DBRCLM	0.081000	5.0000	.957	14	0	0
830	ES	LO02	VOLATILES/SOIL/GCDUAL	ETC6H5	0.062000	5.0000	1.03	14	0	0
831	ES	LO02	VOLATILES/SOIL/GCDUAL	MEC6H5	0.028000	5.0000	.970	14	0	0
866	ES	LO02	VOLATILES/SOIL/GCDUAL	T12DCE	0.063000	5.0000	.948	14	0	0
832	ES	LO02	VOLATILES/SOIL/GCDUAL	T13DCP	0.081000	5.0000	.957	14	0	0
833	ES	LO02	VOLATILES/SOIL/GCDUAL	TCLEA	0.045000	5.0000	.906	14	0	0
834	ES	LO02	VOLATILES/SOIL/GCDUAL	TCLEE	0.045000	5.0000	.906	14	0	0
835	ES	LO02	VOLATILES/SOIL/GCDUAL	TRCLE	0.049000	5.0000	.972	14	0	0
828	ES	LO02	VOLATILES/SOIL/GCDUAL	XYLEN	0.086000	10.0000	1.01	14	0	0
179	ES	LW03	HERBICIDES/SOIL/HPLC	BRMCIL	0.970000	20.7000	.650	0	7	40
462	ES	LW12	EXPLOSIVES/SOIL/HPLC	135TNB	0.488000	24.4000	.991	0	56	40
454	ES	LW12	EXPLOSIVES/SOIL/HPLC	13DNB	0.496000	24.8000	.952	0	56	40
463	ES	LW12	EXPLOSIVES/SOIL/HPLC	246TNT	0.456000	22.8000	1.01	0	56	40
455	ES	LW12	EXPLOSIVES/SOIL/HPLC	24DNT	0.424000	21.2000	.938	0	56	40
456	ES	LW12	EXPLOSIVES/SOIL/HPLC	26DNT	0.524000	26.2000	.977	0	56	40
977	ES	LW12	EXPLOSIVES/SOIL/HPLC	2NT	0.307000	61.3000	.997	0	7	40
457	ES	LW12	EXPLOSIVES/SOIL/HPLC	HMX	0.666000	33.3000	1.00	0	56	40
458	ES	LW12	EXPLOSIVES/SOIL/HPLC	NB	2.410000	27.4000	.793	0	56	40
459	ES	LW12	EXPLOSIVES/SOIL/HPLC	NG	4.000000	200.0000	.931	0	56	40
460	ES	LW12	EXPLOSIVES/SOIL/HPLC	PETN	4.000000	80.0000	.969	0	56	40
464	ES	LW12	EXPLOSIVES/SOIL/HPLC	RDX	0.587000	21.9000	.929	0	56	40
461	ES	LW12	EXPLOSIVES/SOIL/HPLC	TETRYL	0.731000	20.2000	1.13	0	56	40
474	ES	LW15	EXPLOSIVES/SOIL/HPLC	NO-	0.475000	9.5000	.901	0	56	40
901	ES	LW18	AGENTPRODS/SOIL/HPLC	CLC2A	18.000000	302.0000	.837	0	7	40
902	ES	LW18	AGENTPRODS/SOIL/HPLC	TDGCL	3.940000	102.0000	1.07	7	40	0
932	ES	LW24	PHENOLS/SOIL/HPLC UV	24DCLP	0.023000	4.1200	.799	28	0	0
933	ES	LW24	PHENOLS/SOIL/HPLC UV	2NP	0.043000	2.5000	.771	28	0	0
931	ES	LW24	PHENOLS/SOIL/HPLC UV	4CL3C	0.021000	4.0200	.784	28	0	0
934	ES	LW24	PHENOLS/SOIL/HPLC UV	CL3P	0.040000	5.0600	.798	28	0	0
180	ES	M8	VOLATILES/WATER/GCMS	111TCE	1.000000	160.0000	.987	14	0	0
181	ES	M8	VOLATILES/WATER/GCMS	112TCE	1.000000	160.0000	1.06	14	0	0
182	ES	M8	VOLATILES/WATER/GCMS	11DCLE	2.000000	80.0000	1.00	14	0	0
183	ES	M8	VOLATILES/WATER/GCMS	12DCD4	2.900000	160.0000	1.02	14	0	0
184	ES	M8	VOLATILES/WATER/GCMS	12DCE	1.200000	160.0000	.950	14	0	0
185	ES	M8	VOLATILES/WATER/GCMS	12DCLE	1.000000	160.0000	.979	14	0	0
186	ES	M8	VOLATILES/WATER/GCMS	13DMB	1.000000	160.0000	.983	14	0	0
187	ES	M8	VOLATILES/WATER/GCMS	BCHPD	1.000000	160.0000	.989	14	0	0
188	ES	M8	VOLATILES/WATER/GCMS	C6H6	1.100000	160.0000	1.03	14	0	0
189	ES	M8	VOLATILES/WATER/GCMS	CCL4	1.500000	160.0000	.980	14	0	0
190	ES	M8	VOLATILES/WATER/GCMS	CD2CL2	2.000000	160.0000	.950	14	0	0
191	ES	M8	VOLATILES/WATER/GCMS	CH2CL2	4.800000	160.0000	.888	14	0	0
192	ES	M8	VOLATILES/WATER/GCMS	CHCL3	1.000000	160.0000	.961	14	0	0
193	ES	M8	VOLATILES/WATER/GCMS	CLC6H5	2.100000	160.0000	1.02	14	0	0
194	ES	M8	VOLATILES/WATER/GCMS	DBCP	4.000000	80.0000	1.01	14	0	0
195	ES	M8	VOLATILES/WATER/GCMS	DCPD	1.100000	170.0000	.985	14	0	0
196	ES	M8	VOLATILES/WATER/GCMS	DMDS	2.500000	160.0000	1.03	14	0	0
197	ES	M8	VOLATILES/WATER/GCMS	ETBD10	1.000000	160.0000	1.00	14	0	0
198	ES	M8	VOLATILES/WATER/GCMS	ETC6H5	1.000000	160.0000	.994	14	0	0
199	ES	M8	VOLATILES/WATER/GCMS	MEC6H5	1.000000	160.0000	.997	14	0	0
200	ES	M8	VOLATILES/WATER/GCMS	MIBK	2.000000	80.0000	1.07	14	0	0
201	ES	M8	VOLATILES/WATER/GCMS	TCLEE	1.000000	160.0000	1.02	14	0	0
202	ES	M8	VOLATILES/WATER/GCMS	TRCLE	1.000000	160.0000	1.01	14	0	0
203	ES	M8	VOLATILES/WATER/GCMS	XYLEN	2.000000	320.0000	1.02	14	0	0
204	ES	MM9	AGENTPRODS/SOIL/HPLC	CLC2A	18.000000	302.0000	.875	0	7	40
205	ES	MM9	AGENTPRODS/SOIL/HPLC	TDGCL	2.550000	102.0000	1.07	0	7	40
206	ES	Q9	ORGANICS/SOIL/GCMS	13DBD4	0.270000	100.0000	.919	0	7	40
207	ES	Q9	ORGANICS/SOIL/GCMS	2CLPD4	0.340000	25.0000	1.04	0	7	40
208	ES	Q9	ORGANICS/SOIL/GCMS	ALDRN	0.940000	100.0000	.877	0	7	40
209	ES	Q9	ORGANICS/SOIL/GCMS	ATZ	0.730000	100.0000	1.02	0	7	40
210	ES	Q9	ORGANICS/SOIL/GCMS	CL6CP	1.100000	50.0000	1.18	0	7	40
211	ES	Q9	ORGANICS/SOIL/GCMS	CLDAN	1.500000	100.0000	.937	0	7	40
212	ES	Q9	ORGANICS/SOIL/GCMS	CPMS	0.250000	50.0000	1.04	0	7	40
213	ES	Q9	ORGANICS/SOIL/GCMS	CPMSO	0.350000	50.0000	.972	0	7	40
214	ES	Q9	ORGANICS/SOIL/GCMS	CPMSO2	0.290000	100.0000	.898	0	7	40
215	ES	Q9	ORGANICS/SOIL/GCMS	DBCP	0.330000	50.0000	1.04	0	7	40
216	ES	Q9	ORGANICS/SOIL/GCMS	DCPD	0.260000	25.0000	1.03	0	7	40
217	ES	Q9	ORGANICS/SOIL/GCMS	DDVP	0.250000	25.0000	.722	0	7	40
218	ES	Q9	ORGANICS/SOIL/GCMS	DEPD4	0.250000	50.0000	.958	0	7	40
219	ES	Q9	ORGANICS/SOIL/GCMS	DIMP	0.500000	10.0000	1.13	0	7	40

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

220	ES	Q9	ORGANICS/SOIL/GCMS	DIXH	0.250000	100.0000	.926	0	7	40
221	ES	Q9	ORGANICS/SOIL/GCMS	DLDRN	0.350000	100.0000	.984	0	7	40
222	ES	Q9	ORGANICS/SOIL/GCMS	DMMP	1.500000	10.0000	1.07	0	7	40
223	ES	Q9	ORGANICS/SOIL/GCMS	DNOPD4	0.570000	100.0000	1.09	0	7	40
224	ES	Q9	ORGANICS/SOIL/GCMS	ENDRN	0.700000	50.0000	1.00	0	7	40
225	ES	Q9	ORGANICS/SOIL/GCMS	ISODR	0.330000	100.0000	.939	0	7	40
226	ES	Q9	ORGANICS/SOIL/GCMS	MLTHN	0.590000	2.5000	1.07	0	7	40
227	ES	Q9	ORGANICS/SOIL/GCMS	OXAT	0.260000	100.0000	.956	0	7	40
228	ES	Q9	ORGANICS/SOIL/GCMS	PPDDE	0.290000	100.0000	.877	0	7	40
229	ES	Q9	ORGANICS/SOIL/GCMS	PPDDT	0.370000	100.0000	1.12	0	7	40
230	ES	Q9	ORGANICS/SOIL/GCMS	PRTHN	0.630000	100.0000	1.06	0	7	40
231	ES	Q9	ORGANICS/SOIL/GCMS	SUPONA	0.490000	10.0000	1.12	0	7	40
232	ES	R9	METALS/SOIL/ICP	CD	0.921000	50.0000	1.12	180	0	0
233	ES	R9	METALS/SOIL/ICP	CR	7.160000	500.0000	.926	180	0	0
234	ES	R9	METALS/SOIL/ICP	CU	4.810000	500.0000	1.01	180	0	0
235	ES	R9	METALS/SOIL/ICP	PB	16.800000	500.0000	.919	180	0	0
236	ES	R9	METALS/SOIL/ICP	ZN	16.400000	500.0000	1.03	180	0	0
237	ES	S8	PESTICIDES/WATER/GCEC	ALDRN	0.070000	1.0200	.889	0	7	40
238	ES	S8	PESTICIDES/WATER/GCEC	CL6CP	0.070000	0.9900	.779	0	7	40
239	ES	S8	PESTICIDES/WATER/GCEC	DLDRN	0.060000	1.0400	.981	0	7	40
240	ES	S8	PESTICIDES/WATER/GCEC	ENDRN	0.052000	1.0300	1.10	0	7	40
241	ES	S8	PESTICIDES/WATER/GCEC	ISODR	0.060000	1.1000	.910	0	7	40
242	ES	S8	PESTICIDES/WATER/GCEC	PPDDE	0.053000	1.0600	.981	0	7	40
243	ES	S8	PESTICIDES/WATER/GCEC	PPDDT	0.070000	1.0800	1.07	0	7	40
244	ES	SB01	METALS/WATER/CVAA	HG	0.243000	10.0000	1.03	28	0	0
245	ES	SD02	METALS/WATER/GFAA	SE	5.220000	25.0000	1.08	180	0	0
246	ES	SD03	METALS/WATER/GFAA	AS	3.880000	50.0000	.976	180	0	0
443	ES	SD09	METALS/WATER/GFAA	AG	0.280000	2.0000	1.02	180	0	0
433	ES	SD09	METALS/WATER/GFAA	AL	31.000000	300.0000	1.12	180	0	0
435	ES	SD09	METALS/WATER/GFAA	AS	14.100000	200.0000	1.41	180	0	0
436	ES	SD09	METALS/WATER/GFAA	BE	2.950000	10.0000	1.20	180	0	0
437	ES	SD09	METALS/WATER/GFAA	CD	7.400000	50.0000	1.10	180	0	0
439	ES	SD09	METALS/WATER/GFAA	MN	5.930000	10.0000	1.18	180	0	0
440	ES	SD09	METALS/WATER/GFAA	MO	12.700000	75.0000	.995	180	0	0
441	ES	SD09	METALS/WATER/GFAA	NI	37.800000	375.0000	1.27	180	0	0
439	ES	SD09	METALS/WATER/GFAA	PB	22.200000	300.0000	.948	180	0	0
442	ES	SD09	METALS/WATER/GFAA	SB	23.800000	300.0000	1.30	180	0	0
442	ES	SD09	METALS/WATER/GFAA	SE	9.660000	100.0000	1.37	180	0	0
444	ES	SD09	METALS/WATER/GFAA	TL	6.990000	25.0000	.905	180	0	0
445	ES	SD09	METALS/WATER/GFAA	ZN	25.200000	50.0000	.762	180	0	0
741	ES	SD19	METALS/WATER/GFAA	V	3.820000	200.0000	.909	180	0	0
742	ES	SD20	METALS/WATER/GFAA	PB	1.260000	100.0000	.922	180	0	0
743	ES	SD21	METALS/WATER/GFAA	SE	3.020000	100.0000	.939	180	0	0
744	ES	SD22	METALS/WATER/GFAA	AS	2.540000	100.0000	.938	180	0	0
745	ES	SD23	METALS/WATER/GFAA	AG	0.250000	10.0000	1.06	180	0	0
947	ES	SD28	METALS/WATER/GFAA	SB	3.030000	200.0000	1.12	180	0	0
247	ES	SS01	METALS/WATER/ICP	AG	13.500000	5000.0000	.964	180	0	0
248	ES	SS01	METALS/WATER/ICP	BA	10.400000	10000.0000	.999	180	0	0
249	ES	SS01	METALS/WATER/ICP	CA	500.000000	20000.0000	.974	180	0	0
250	ES	SS01	METALS/WATER/ICP	CD	5.160000	5000.0000	1.00	180	0	0
251	ES	SS01	METALS/WATER/ICP	CR	5.960000	5000.0000	1.01	180	0	0
252	ES	SS01	METALS/WATER/ICP	CU	7.930000	10000.0000	.985	180	0	0
253	ES	SS01	METALS/WATER/ICP	MG	500.000000	20000.0000	.988	180	0	0
254	ES	SS01	METALS/WATER/ICP	NA	764.000000	50000.0000	.954	180	0	0
255	ES	SS01	METALS/WATER/ICP	PB	18.600000	5000.0000	.945	180	0	0
256	ES	SS01	METALS/WATER/ICP	ZN	20.100000	20000.0000	.949	180	0	0
928	ES	SS10	METALS/WATER/ICP	AG	4.600000	2500.0000	.989	180	0	0
761	ES	SS10	METALS/WATER/ICP	AL	141.000000	500000.0000	1.01	180	0	0
762	ES	SS10	METALS/WATER/ICP	B	50.000000	50000.0000	.880	180	0	0
763	ES	SS10	METALS/WATER/ICP	BA	5.000000	10000.0000	1.08	180	0	0
764	ES	SS10	METALS/WATER/ICP	BE	5.000000	1000.0000	.893	180	0	0
765	ES	SS10	METALS/WATER/ICP	BI	109.000000	25000.0000	1.02	180	0	0
766	ES	SS10	METALS/WATER/ICP	CA	500.000000	500000.0000	.947	180	0	0
767	ES	SS10	METALS/WATER/ICP	CD	4.010000	5000.0000	1.00	180	0	0
768	ES	SS10	METALS/WATER/ICP	CO	25.000000	50000.0000	.879	180	0	0
769	ES	SS10	METALS/WATER/ICP	CR	6.020000	5000.0000	1.01	180	0	0
770	ES	SS10	METALS/WATER/ICP	CU	8.090000	10000.0000	.985	180	0	0
771	ES	SS10	METALS/WATER/ICP	FE	38.800000	500000.0000	.938	180	0	0
772	ES	SS10	METALS/WATER/ICP	K	375.000000	500000.0000	.881	180	0	0
773	ES	SS10	METALS/WATER/ICP	MG	500.000000	500000.0000	.988	180	0	0
774	ES	SS10	METALS/WATER/ICP	MN	2.750000	50000.0000	.963	180	0	0
775	ES	SS10	METALS/WATER/ICP	MO	15.300000	8000.0000	.883	180	0	0
776	ES	SS10	METALS/WATER/ICP	NA	500.000000	500000.0000	.954	180	0	0
777	ES	SS10	METALS/WATER/ICP	NI	34.300000	15000.0000	.860	180	0	0
778	ES	SS10	METALS/WATER/ICP	PB	18.600000	5000.0000	.945	180	0	0
779	ES	SS10	METALS/WATER/ICP	SB	38.000000	6000.0000	.844	180	0	0
780	ES	SS10	METALS/WATER/ICP	SE	71.100000	75000.0000	.928	180	0	0
930	ES	SS10	METALS/WATER/ICP	SN	47.100000	200.0000	1.00	180	0	0
781	ES	SS10	METALS/WATER/ICP	TE	103.000000	2000.0000	.994	180	0	0
782	ES	SS10	METALS/WATER/ICP	TL	81.400000	40000.0000	.857	180	0	0
783	ES	SS10	METALS/WATER/ICP	V	11.000000	1000.0000	.958	180	0	0
784	ES	SS10	METALS/WATER/ICP	ZN	21.100000	20000.0000	.949	180	0	0
986	ES	SS18	METALS/WATER/ICP	AG	4.420000	1000.0000	1.05	180	0	0
987	ES	SS18	METALS/WATER/ICP	AL	23.500000	500000.0000	1.01	180	0	0

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

988	ES	SS18	METALS/WATER/ICP	AS	34.500000	50000.0000	1.02	180	0	0
989	ES	SS18	METALS/WATER/ICP	B	50.000000	50000.0000	.936	180	0	0
990	ES	SS18	METALS/WATER/ICP	BA	250.000000	25000.0000	.999	180	0	0
991	ES	SS18	METALS/WATER/ICP	BE	5.000000	10000.0000	1.01	180	0	0
992	ES	SS18	METALS/WATER/ICP	BI	109.000000	25000.0000	1.02	180	0	0
993	ES	SS18	METALS/WATER/ICP	CA	1000.000000	500000.0000	.965	180	0	0
994	ES	SS18	METALS/WATER/ICP	CD	3.010000	10000.0000	.995	180	0	0
995	ES	SS18	METALS/WATER/ICP	CO	25.000000	50000.0000	.879	180	0	0
996	ES	SS18	METALS/WATER/ICP	CR	6.960000	50000.0000	.947	180	0	0
997	ES	SS18	METALS/WATER/ICP	CU	5.000000	25000.0000	1.00	180	0	0
998	ES	SS18	METALS/WATER/ICP	FE	36.800000	500000.0000	.970	180	0	0
999	ES	SS18	METALS/WATER/ICP	K	1000.000000	500000.0000	.968	180	0	0
1000	ES	SS18	METALS/WATER/ICP	MG	378.000000	500000.0000	.938	180	0	0
1001	ES	SS18	METALS/WATER/ICP	MN	2.500000	50000.0000	.963	180	0	0
1002	ES	SS18	METALS/WATER/ICP	MO	10.000000	10000.0000	.998	180	0	0
1003	ES	SS18	METALS/WATER/ICP	NA	2290.000000	500000.0000	.972	180	0	0
1004	ES	SS18	METALS/WATER/ICP	NI	7.110000	50000.0000	.939	180	0	0
1005	ES	SS18	METALS/WATER/ICP	PB	25.000000	5000.0000	.945	180	0	0
1006	ES	SS18	METALS/WATER/ICP	SB	29.500000	6000.0000	.844	180	0	0
1007	ES	SS18	METALS/WATER/ICP	SE	50.000000	50000.0000	1.02	180	0	0
1008	ES	SS18	METALS/WATER/ICP	TE	103.000000	2000.0000	.994	180	0	0
1009	ES	SS18	METALS/WATER/ICP	TL	50.000000	50000.0000	.963	180	0	0
1010	ES	SS18	METALS/WATER/ICP	V	4.690000	10000.0000	1.00	180	0	0
1011	ES	SS18	METALS/WATER/ICP	ZN	35.800000	10000.0000	.993	180	0	0
257	ES	SS9	PESTICIDES/SOIL/GCEC	ALDRN	0.050000	1.0000	.859	0	7	40
258	ES	SS9	PESTICIDES/SOIL/GCEC	CL6CP	0.051000	1.0100	1.05	0	7	40
259	ES	SS9	PESTICIDES/SOIL/GCEC	CLDAN	0.203000	4.0500	.970	0	7	40
260	ES	SS9	PESTICIDES/SOIL/GCEC	DLDRN	0.051000	1.0100	.895	0	7	40
261	ES	SS9	PESTICIDES/SOIL/GCEC	ENDRN	0.060000	1.0400	.878	0	7	40
262	ES	SS9	PESTICIDES/SOIL/GCEC	ISODR	0.053000	1.0700	.873	0	7	40
263	ES	SS9	PESTICIDES/SOIL/GCEC	PPDDE	0.053000	1.0500	.904	0	7	40
264	ES	SS9	PESTICIDES/SOIL/GCEC	PPDDT	0.050000	1.0100	.854	0	7	40
265	ES	SS9A	PESTICIDES/SOIL/GCEC	ALDRN	0.001820	0.0400	.845	0	7	40
266	ES	SS9A	PESTICIDES/SOIL/GCEC	CL6CP	0.002580	0.0400	.794	0	7	40
267	ES	SS9A	PESTICIDES/SOIL/GCEC	CLDAN	0.111000	0.4360	.821	0	7	40
268	ES	SS9A	PESTICIDES/SOIL/GCEC	DLDRN	0.001210	0.0408	.941	0	7	40
269	ES	SS9A	PESTICIDES/SOIL/GCEC	ENDRN	0.001000	0.0404	.927	0	7	40
270	ES	SS9A	PESTICIDES/SOIL/GCEC	ISODR	0.001110	0.0412	.889	0	7	40
271	ES	SS9A	PESTICIDES/SOIL/GCEC	PPDDE	0.001000	0.0400	.953	0	7	40
272	ES	SS9A	PESTICIDES/SOIL/GCEC	PPDDT	0.002340	0.0412	.994	0	7	40
273	ES	T8	ORGANOPHOSPHOR/WATER/GCFP	DIMP	10.500000	210.0000	.912	40	0	0
274	ES	T8	ORGANOPHOSPHOR/WATER/GCFP	DMMP	15.200000	305.0000	.968	40	0	0
275	ES	T9	METALS/SOIL/GFAA	AS	4.700000	50.0000	.963	180	0	0
449	ES	TF18	CYANIDE/WATER/TECHNICON	CYN	2.500000	50.0000	1.00	14	0	0
935	ES	TF21	ANIONS/WATER/TECHNICON	PO4ORT	11.000000	500.0000	1.00	2	0	0
804	ES	TF22	NIT/WATER/TECHNICON	NIT	10.000000	200.0000	.999	28	0	0
905	ES	TF25	AMMONIUM/WATER/TECHNICON	NH3	60.000000	1000.0000	1.10	28	0	0
906	ES	TF26	TOTAL NITROGEN/WATER/TECH	N2KJEL	183.000000	5000.0000	1.05	28	0	0
907	ES	TF27	PHOSHATES/WATER/TECHNICON	PO4	13.300000	500.0000	1.01	28	0	0
912	ES	TT10	ANIONS/WATER/IONCHROM	BR	1000.000000	25000.0000	1.03	28	0	0
913	ES	TT10	ANIONS/WATER/IONCHROM	CL	2120.000000	30000.0000	.911	28	0	0
914	ES	TT10	ANIONS/WATER/IONCHROM	F	1230.000000	10000.0000	1.03	28	0	0
915	ES	TT10	ANIONS/WATER/IONCHROM	SO4	10000.000000	300000.0000	1.00	28	0	0
276	ES	TT9	ORGANOPHOSPHOR/SOIL/GCFP	DIMP	0.114000	4.5700	1.07	0	7	40
277	ES	TT9	ORGANOPHOSPHOR/SOIL/GCFP	DMMP	0.133000	4.1800	1.04	0	7	40
929	ES	TY10	SULFIDE/WATER/SPECTRO	SULFID	32.027000	750.0000	1.00	7	0	0
278	ES	U8	ORGANOSULFURS/WATER/GCFP	BTZ	1.970000	42.2000	.921	0	7	40
279	ES	U8	ORGANOSULFURS/WATER/GCFP	CPMS	1.260000	25.3000	.824	0	7	40
280	ES	U8	ORGANOSULFURS/WATER/GCFP	CPMSO	4.230000	106.0000	.743	0	7	40
281	ES	U8	ORGANOSULFURS/WATER/GCFP	CPMSO2	4.660000	106.0000	.866	0	7	40
282	ES	U8	ORGANOSULFURS/WATER/GCFP	DITH	1.110000	22.2000	.832	0	7	40
283	ES	U8	ORGANOSULFURS/WATER/GCFP	DMDS	1.770000	22.8000	.801	0	7	40
284	ES	U8	ORGANOSULFURS/WATER/GCFP	OXAT	1.610000	39.5000	.829	0	7	40
285	ES	U9	PESTICIDES/SOIL/GCEC	DBCP	0.005000	0.1000	.755	0	7	40
477	ES	UF03	NC/WATER/TECHNICON	NC	553.000000	6000.0000	.826	0	7	40
286	ES	UG02	HALOCARBONS/WATER/GCCON	111TCE	1.700000	196.0000	1.15	14	0	0
287	ES	UG02	HALOCARBONS/WATER/GCCON	112TCE	1.000000	196.0000	1.03	14	0	0
288	ES	UG02	HALOCARBONS/WATER/GCCON	11DCE	1.100000	196.0000	1.17	14	0	0
289	ES	UG02	HALOCARBONS/WATER/GCCON	11DCLE	1.200000	194.0000	1.15	14	0	0
290	ES	UG02	HALOCARBONS/WATER/GCCON	12DCE	1.200000	194.0000	1.17	14	0	0
291	ES	UG02	HALOCARBONS/WATER/GCCON	12DCLE	0.610000	196.0000	1.03	14	0	0
292	ES	UG02	HALOCARBONS/WATER/GCCON	CCL4	2.400000	200.0000	1.01	14	0	0
293	ES	UG02	HALOCARBONS/WATER/GCCON	CH2CL2	5.000000	198.0000	1.03	14	0	0
294	ES	UG02	HALOCARBONS/WATER/GCCON	CHCL3	1.400000	194.0000	1.17	14	0	0
295	ES	UG02	HALOCARBONS/WATER/GCCON	CLC6H5	0.580000	200.0000	1.08	14	0	0
296	ES	UG02	HALOCARBONS/WATER/GCCON	TCLEE	1.300000	196.0000	1.06	14	0	0
297	ES	UG02	HALOCARBONS/WATER/GCCON	TRCLE	1.100000	194.0000	1.10	14	0	0
298	ES	UH02	PESTICIDES/WATER/GCEC	PCB016	0.160000	6.4000	.826	0	7	40
299	ES	UH02	PESTICIDES/WATER/GCEC	PCB260	0.190000	6.3000	.915	0	7	40
714	ES	UH13	PESTICIDES/WATER/GCEC	ABHC	0.038500	0.6380	.941	0	7	40
721	ES	UH13	PESTICIDES/WATER/GCEC	AENSLF	0.023000	0.5750	1.02	0	7	40
719	ES	UH13	PESTICIDES/WATER/GCEC	ALDRN	0.091800	0.6060	.756	0	7	40
718	ES	UH13	PESTICIDES/WATER/GCEC	BBHC	0.024000	0.6000	.891	0	7	40
726	ES	UH13	PESTICIDES/WATER/GCEC	BENSLF	0.023000	0.5750	1.16	0	7	40

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

DO NOT DUPLICATE

731	ES	UH13	PESTICIDES/WATER/GCEC	CLOAN	0.265000	5.3000	.962	0	7	40
716	ES	UH13	PESTICIDES/WATER/GCEC	DBHC	0.029300	0.5940	1.15	0	7	40
723	ES	UH13	PESTICIDES/WATER/GCEC	DLDRN	0.024000	0.6000	1.04	0	7	40
724	ES	UH13	PESTICIDES/WATER/GCEC	ENDRN	0.023800	0.5940	1.32	0	7	40
728	ES	UH13	PESTICIDES/WATER/GCEC	ENDRNA	0.028500	0.7130	1.00	0	7	40
729	ES	UH13	PESTICIDES/WATER/GCEC	ESFSO4	0.078600	0.6750	.961	0	7	40
717	ES	UH13	PESTICIDES/WATER/GCEC	HPCL	0.042300	0.6190	.849	0	7	40
720	ES	UH13	PESTICIDES/WATER/GCEC	HPCLE	0.024500	0.6130	1.01	0	7	40
938	ES	UH13	PESTICIDES/WATER/GCEC	ISODR	0.056200	1.1000	.910	0	7	40
715	ES	UH13	PESTICIDES/WATER/GCEC	LIN	0.050700	0.6190	.964	0	7	40
730	ES	UH13	PESTICIDES/WATER/GCEC	MEXCLR	0.057000	1.1600	1.26	0	7	40
733	ES	UH13	PESTICIDES/WATER/GCEC	PCB016	0.486000	8.2500	1.02	0	7	40
734	ES	UH13	PESTICIDES/WATER/GCEC	PCB260	0.636000	5.8800	1.06	0	7	40
725	ES	UH13	PESTICIDES/WATER/GCEC	PPDDD	0.023300	0.5810	1.17	0	7	40
722	ES	UH13	PESTICIDES/WATER/GCEC	PPDDE	0.027000	0.6750	.999	0	7	40
727	ES	UH13	PESTICIDES/WATER/GCEC	PPDDT	0.034000	0.6630	.949	0	7	40
732	ES	UH13	PESTICIDES/WATER/GCEC	TXPHEN	1.350000	11.6000	1.00	0	7	40
740	ES	UH14	HERBICIDES/WATER/HPLC	245TP	0.170000	1.3600	.931	0	7	40
739	ES	UH14	HERBICIDES/WATER/HPLC	24D	0.802000	2.5200	.646	0	7	40
789	ES	UL04	ORGANOSULFURS/WATER/GCFP	BTZ	2.110000	42.2000	.927	0	7	40
788	ES	UL04	ORGANOSULFURS/WATER/GCFP	CPMS	1.260000	25.3000	.824	0	7	40
790	ES	UL04	ORGANOSULFURS/WATER/GCFP	CPMSO	4.230000	106.0000	.743	0	7	40
791	ES	UL04	ORGANOSULFURS/WATER/GCFP	CPMSO2	4.720000	106.0000	.866	0	7	40
787	ES	UL04	ORGANOSULFURS/WATER/GCFP	DITH	1.110000	22.2000	.831	0	7	40
785	ES	UL04	ORGANOSULFURS/WATER/GCFP	DMDS	1.140000	22.8000	.801	0	7	40
786	ES	UL04	ORGANOSULFURS/WATER/GCFP	OXAT	1.980000	39.5000	.829	0	7	40
300	ES	UM04	VOLATILES/WATER/GCMS	111TCE	1.000000	160.0000	.987	14	0	0
301	ES	UM04	VOLATILES/WATER/GCMS	112TCE	1.000000	160.0000	1.06	14	0	0
302	ES	UM04	VOLATILES/WATER/GCMS	11DCLE	2.000000	80.0000	1.00	14	0	0
303	ES	UM04	VOLATILES/WATER/GCMS	12DCD4	2.900000	160.0000	1.02	14	0	0
304	ES	UM04	VOLATILES/WATER/GCMS	12DCE	1.200000	160.0000	.950	14	0	0
305	ES	UM04	VOLATILES/WATER/GCMS	12DCLE	1.000000	160.0000	.979	14	0	0
306	ES	UM04	VOLATILES/WATER/GCMS	13DMB	1.000000	160.0000	.983	14	0	0
307	ES	UM04	VOLATILES/WATER/GCMS	BCHPD	1.000000	160.0000	.989	14	0	0
308	ES	UM04	VOLATILES/WATER/GCMS	C6H6	1.100000	160.0000	1.03	14	0	0
309	ES	UM04	VOLATILES/WATER/GCMS	CCL4	1.500000	160.0000	.980	14	0	0
310	ES	UM04	VOLATILES/WATER/GCMS	CD2CL2	2.000000	160.0000	.952	14	0	0
311	ES	UM04	VOLATILES/WATER/GCMS	CH2CL2	4.800000	160.0000	.888	14	0	0
312	ES	UM04	VOLATILES/WATER/GCMS	CHCL3	1.000000	160.0000	.961	14	0	0
313	ES	UM04	VOLATILES/WATER/GCMS	CLC6H5	2.100000	160.0000	1.02	14	0	0
314	ES	UM04	VOLATILES/WATER/GCMS	DBCP	4.000000	80.0000	1.05	14	0	0
315	ES	UM04	VOLATILES/WATER/GCMS	DCPD	1.100000	170.0000	.985	14	0	0
316	ES	UM04	VOLATILES/WATER/GCMS	DMDS	2.500000	160.0000	1.03	14	0	0
317	ES	UM04	VOLATILES/WATER/GCMS	ETBD10	1.000000	160.0000	.996	14	0	0
318	ES	UM04	VOLATILES/WATER/GCMS	ETC6H5	1.000000	160.0000	.994	14	0	0
319	ES	UM04	VOLATILES/WATER/GCMS	MEC6H5	1.000000	160.0000	.997	14	0	0
320	ES	UM04	VOLATILES/WATER/GCMS	MIBK	2.000000	80.0000	1.07	14	0	0
321	ES	UM04	VOLATILES/WATER/GCMS	TCLEE	1.000000	160.0000	1.02	14	0	0
322	ES	UM04	VOLATILES/WATER/GCMS	TRCLE	1.000000	160.0000	1.01	14	0	0
323	ES	UM04	VOLATILES/WATER/GCMS	XYLEN	2.000000	320.0000	1.02	14	0	0
324	ES	UM08	ORGANICS/WATER/GCMS	245TCP	5.200000	200.0000	1.05	0	7	40
326	ES	UM08	ORGANICS/WATER/GCMS	246TBP	13.000000	200.0000	1.25	0	7	40
325	ES	UM08	ORGANICS/WATER/GCMS	246TCP	4.200000	100.0000	1.02	0	7	40
327	ES	UM08	ORGANICS/WATER/GCMS	24DCLP	1.000000	200.0000	.930	0	7	40
328	ES	UM08	ORGANICS/WATER/GCMS	24DMPN	2.100000	100.0000	.937	0	7	40
329	ES	UM08	ORGANICS/WATER/GCMS	24DNP	21.000000	100.0000	1.55	0	7	40
330	ES	UM08	ORGANICS/WATER/GCMS	2CLP	1.100000	200.0000	.967	0	7	40
331	ES	UM08	ORGANICS/WATER/GCMS	2FBP	12.000000	100.0000	.891	0	7	40
332	ES	UM08	ORGANICS/WATER/GCMS	2FP	17.000000	200.0000	.657	0	7	40
333	ES	UM08	ORGANICS/WATER/GCMS	2MP	0.500000	200.0000	.967	0	7	40
334	ES	UM08	ORGANICS/WATER/GCMS	2NP	3.700000	100.0000	.986	0	7	40
335	ES	UM08	ORGANICS/WATER/GCMS	46DN2C	17.000000	100.0000	1.22	0	7	40
336	ES	UM08	ORGANICS/WATER/GCMS	4CL3C	0.840000	200.0000	.989	0	7	40
337	ES	UM08	ORGANICS/WATER/GCMS	4MP	0.520000	200.0000	.847	0	7	40
338	ES	UM08	ORGANICS/WATER/GCMS	4NP	12.000000	100.0000	.662	0	7	40
340	ES	UM08	ORGANICS/WATER/GCMS	BENZOA	8.000000	100.0000	.704	0	7	40
339	ES	UM08	ORGANICS/WATER/GCMS	BZALC	0.720000	200.0000	.969	0	7	40
341	ES	UM08	ORGANICS/WATER/GCMS	NBD5	11.000000	100.0000	.845	0	7	40
342	ES	UM08	ORGANICS/WATER/GCMS	PCP	21.000000	100.0000	1.39	0	7	40
343	ES	UM08	ORGANICS/WATER/GCMS	PHEND6	36.000000	200.0000	.501	0	7	40
344	ES	UM08	ORGANICS/WATER/GCMS	PHENOL	13.000000	200.0000	.529	0	7	40
345	ES	UM08	ORGANICS/WATER/GCMS	TRPD14	14.000000	100.0000	.878	0	7	40
478	ES	UM18	ORGANICS/WATER/GCMS	124TCB	1.800000	50.0000	.824	0	7	40
479	ES	UM18	ORGANICS/WATER/GCMS	12DCLB	1.700000	50.0000	.856	0	7	40
480	ES	UM18	ORGANICS/WATER/GCMS	13DCLB	1.700000	200.0000	.790	0	7	40
481	ES	UM18	ORGANICS/WATER/GCMS	14DCLB	1.700000	200.0000	.786	0	7	40
482	ES	UM18	ORGANICS/WATER/GCMS	245TCP	5.200000	200.0000	1.06	0	7	40
483	ES	UM18	ORGANICS/WATER/GCMS	246TBP	13.000000	200.0000	1.26	0	7	40
563	ES	UM18	ORGANICS/WATER/GCMS	246TCP	4.200000	100.0000	1.02	0	7	40
484	ES	UM18	ORGANICS/WATER/GCMS	24DCLP	2.900000	200.0000	.930	0	7	40
485	ES	UM18	ORGANICS/WATER/GCMS	24DMPN	5.800000	100.0000	.938	0	7	40
486	ES	UM18	ORGANICS/WATER/GCMS	24DNP	21.000000	100.0000	1.37	0	7	40
487	ES	UM18	ORGANICS/WATER/GCMS	24DNT	4.500000	200.0000	.954	0	7	40
564	ES	UM18	ORGANICS/WATER/GCMS	26DNT	0.790000	200.0000	1.09	0	7	40

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS AN INTROPHILIX DOCUMENT
DO NOT DUPLICATE

488	ES	UM18	ORGANICS/WATER/GCMS	2CLP	0.990000	200.0000	.967	0	7	40
489	ES	UM18	ORGANICS/WATER/GCMS	2CNAP	0.500000	200.0000	.880	0	7	40
490	ES	UM18	ORGANICS/WATER/GCMS	2CBP	2.000000	100.0000	.891	0	7	40
491	ES	UM18	ORGANICS/WATER/GCMS	2FP	17.000000	200.0000	.657	0	7	40
492	ES	UM18	ORGANICS/WATER/GCMS	2MNAP	1.700000	50.0000	.919	0	7	40
493	ES	UM18	ORGANICS/WATER/GCMS	2MP	3.900000	200.0000	.967	0	7	40
494	ES	UM18	ORGANICS/WATER/GCMS	2NANIL	4.300000	100.0000	.958	0	7	40
495	ES	UM18	ORGANICS/WATER/GCMS	2NP	3.700000	100.0000	.986	0	7	40
496	ES	UM18	ORGANICS/WATER/GCMS	33DCBD	12.000000	100.0000	1.53	0	7	40
497	ES	UM18	ORGANICS/WATER/GCMS	3NANIL	4.900000	100.0000	.965	0	7	40
498	ES	UM18	ORGANICS/WATER/GCMS	46DN2C	17.000000	100.0000	1.22	0	7	40
499	ES	UM18	ORGANICS/WATER/GCMS	4BRPPE	4.200000	100.0000	.902	0	7	40
585	ES	UM18	ORGANICS/WATER/GCMS	4CANIL	7.300000	100.0000	.872	0	7	40
500	ES	UM18	ORGANICS/WATER/GCMS	4CL3C	4.000000	200.0000	.989	0	7	40
501	ES	UM18	ORGANICS/WATER/GCMS	4CLPPE	5.100000	100.0000	.856	0	7	40
502	ES	UM18	ORGANICS/WATER/GCMS	4MP	0.520000	200.0000	.848	0	7	40
503	ES	UM18	ORGANICS/WATER/GCMS	4NANIL	5.200000	100.0000	1.01	0	7	40
504	ES	UM18	ORGANICS/WATER/GCMS	4NP	12.000000	100.0000	.662	0	7	40
505	ES	UM18	ORGANICS/WATER/GCMS	ANAPNE	1.700000	50.0000	.946	0	7	40
506	ES	UM18	ORGANICS/WATER/GCMS	ANAPYL	0.500000	50.0000	.966	0	7	40
507	ES	UM18	ORGANICS/WATER/GCMS	ANTRC	0.500000	100.0000	.974	0	7	40
508	ES	UM18	ORGANICS/WATER/GCMS	B2CEXM	1.500000	50.0000	.928	0	7	40
509	ES	UM18	ORGANICS/WATER/GCMS	B2CIPE	5.300000	200.0000	.834	0	7	40
510	ES	UM18	ORGANICS/WATER/GCMS	B2CLEE	1.900000	50.0000	.943	0	7	40
511	ES	UM18	ORGANICS/WATER/GCMS	B2EHP	4.800000	100.0000	1.10	0	7	40
512	ES	UM18	ORGANICS/WATER/GCMS	BAANTR	1.600000	100.0000	.996	0	7	40
513	ES	UM18	ORGANICS/WATER/GCMS	BAPYR	4.700000	100.0000	1.12	0	7	40
514	ES	UM18	ORGANICS/WATER/GCMS	BBFANT	5.400000	50.0000	1.05	0	7	40
515	ES	UM18	ORGANICS/WATER/GCMS	BBZP	3.400000	100.0000	1.06	0	7	40
516	ES	UM18	ORGANICS/WATER/GCMS	BENZOA	13.000000	100.0000	.646	0	7	40
517	ES	UM18	ORGANICS/WATER/GCMS	BGHIPY	6.100000	50.0000	1.30	0	7	40
518	ES	UM18	ORGANICS/WATER/GCMS	BKFANT	0.870000	100.0000	1.02	0	7	40
519	ES	UM18	ORGANICS/WATER/GCMS	BZALC	0.720000	100.0000	.861	0	7	40
520	ES	UM18	ORGANICS/WATER/GCMS	CHRY	2.400000	100.0000	.967	0	7	40
521	ES	UM18	ORGANICS/WATER/GCMS	CL6BZ	1.600000	100.0000	.949	0	7	40
522	ES	UM18	ORGANICS/WATER/GCMS	CL6CP	8.600000	100.0000	.708	0	7	40
523	ES	UM18	ORGANICS/WATER/GCMS	CL6ET	1.500000	50.0000	.818	0	7	40
524	ES	UM18	ORGANICS/WATER/GCMS	DBAHA	6.500000	50.0000	1.16	0	7	40
525	ES	UM18	ORGANICS/WATER/GCMS	DBZFUR	1.700000	50.0000	.941	0	7	40
526	ES	UM18	ORGANICS/WATER/GCMS	DEP	2.000000	200.0000	.863	0	7	40
527	ES	UM18	ORGANICS/WATER/GCMS	DMP	1.500000	100.0000	.807	0	7	40
528	ES	UM18	ORGANICS/WATER/GCMS	DNBP	3.700000	200.0000	1.10	0	7	40
586	ES	UM18	ORGANICS/WATER/GCMS	DNOP	15.000000	100.0000	1.28	0	7	40
529	ES	UM18	ORGANICS/WATER/GCMS	FANT	3.300000	100.0000	.996	0	7	40
530	ES	UM18	ORGANICS/WATER/GCMS	FLRENE	3.700000	50.0000	.960	0	7	40
531	ES	UM18	ORGANICS/WATER/GCMS	HCBD	3.400000	100.0000	.731	0	7	40
532	ES	UM18	ORGANICS/WATER/GCMS	ICDPYR	8.600000	100.0000	1.17	0	7	40
533	ES	UM18	ORGANICS/WATER/GCMS	ISOPHR	4.800000	50.0000	.971	0	7	40
534	ES	UM18	ORGANICS/WATER/GCMS	NAP	0.500000	20.0000	1.16	0	7	40
535	ES	UM18	ORGANICS/WATER/GCMS	NB	0.500000	50.0000	.887	0	7	40
536	ES	UM18	ORGANICS/WATER/GCMS	NBD5	11.000000	100.0000	.845	0	7	40
537	ES	UM18	ORGANICS/WATER/GCMS	NNDNPA	4.400000	50.0000	.987	0	7	40
538	ES	UM18	ORGANICS/WATER/GCMS	NNDPA	3.000000	200.0000	.956	0	7	40
539	ES	UM18	ORGANICS/WATER/GCMS	PCP	18.000000	100.0000	1.26	0	7	40
540	ES	UM18	ORGANICS/WATER/GCMS	PHANTR	0.500000	100.0000	1.00	0	7	40
587	ES	UM18	ORGANICS/WATER/GCMS	PHEND6	36.000000	200.0000	.50	0	7	40
541	ES	UM18	ORGANICS/WATER/GCMS	PHENOL	9.200000	200.0000	.542	0	7	40
542	ES	UM18	ORGANICS/WATER/GCMS	PYR	2.800000	100.0000	.995	0	7	40
543	ES	UM18	ORGANICS/WATER/GCMS	TRPD14	14.000000	100.0000	.878	0	7	40
544	ES	UM20	VOLATILES/WATER/GCMS	111TCE	0.500000	200.0000	1.01	14	0	0
545	ES	UM20	VOLATILES/WATER/GCMS	112TCE	1.200000	200.0000	.943	14	0	0
546	ES	UM20	VOLATILES/WATER/GCMS	11DCE	0.500000	200.0000	1.06	14	0	0
547	ES	UM20	VOLATILES/WATER/GCMS	11DCLE	0.680000	200.0000	.983	14	0	0
548	ES	UM20	VOLATILES/WATER/GCMS	12DCD4	23.000000	200.0000	.881	14	0	0
549	ES	UM20	VOLATILES/WATER/GCMS	12DCE	0.500000	200.0000	1.03	14	0	0
550	ES	UM20	VOLATILES/WATER/GCMS	12DCLE	0.500000	50.0000	.995	14	0	0
551	ES	UM20	VOLATILES/WATER/GCMS	12DCLP	0.500000	200.0000	1.02	14	0	0
552	ES	UM20	VOLATILES/WATER/GCMS	2CLEVE	0.710000	200.0000	1.01	14	0	0
553	ES	UM20	VOLATILES/WATER/GCMS	4BFB	6.500000	200.0000	1.11	14	0	0
554	ES	UM20	VOLATILES/WATER/GCMS	ACET	13.000000	50.0000	.907	14	0	0
555	ES	UM20	VOLATILES/WATER/GCMS	BRDCLM	0.590000	200.0000	1.02	14	0	0
556	ES	UM20	VOLATILES/WATER/GCMS	C13DCP	0.580000	230.0000	1.02	14	0	0
557	ES	UM20	VOLATILES/WATER/GCMS	C2AVE	8.300000	50.0000	.984	14	0	0
558	ES	UM20	VOLATILES/WATER/GCMS	C2H3CL	2.600000	200.0000	.964	14	0	0
559	ES	UM20	VOLATILES/WATER/GCMS	C2H5CL	1.900000	200.0000	.980	14	0	0
560	ES	UM20	VOLATILES/WATER/GCMS	C6H6	0.500000	200.0000	1.01	14	0	0
561	ES	UM20	VOLATILES/WATER/GCMS	CCL3F	1.400000	50.0000	.998	14	0	0
562	ES	UM20	VOLATILES/WATER/GCMS	CCL4	0.580000	200.0000	1.05	14	0	0
563	ES	UM20	VOLATILES/WATER/GCMS	CH2CL2	2.300000	100.0000	1.06	14	0	0
564	ES	UM20	VOLATILES/WATER/GCMS	CH3BR	5.800000	100.0000	1.01	14	0	0
565	ES	UM20	VOLATILES/WATER/GCMS	CH3CL	3.200000	200.0000	.952	14	0	0
566	ES	UM20	VOLATILES/WATER/GCMS	CHBR3	2.600000	200.0000	1.05	14	0	0
567	ES	UM20	VOLATILES/WATER/GCMS	CHCL3	0.500000	200.0000	.975	14	0	0
568	ES	UM20	VOLATILES/WATER/GCMS	CLC6H5	0.500000	200.0000	1.04	14	0	0

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

569	ES	UM20	VOLATILES/WATER/GCMS	CS2	0.500000	200.0000	.882	14	0	0
570	ES	UM20	VOLATILES/WATER/GCMS	DBRCLM	0.[illegible]	[illegible]	.981	14	0	0
571	ES	UM20	VOLATILES/WATER/GCMS	ETC6H5	0.500000	200.0000	1.05	14	0	0
572	ES	UM20	VOLATILES/WATER/GCMS	MEC6D8	0.500000	200.0000	1.06	14	0	0
573	ES	UM20	VOLATILES/WATER/GCMS	MEC6H5	0.500000	200.0000	1.02	14	0	0
574	ES	UM20	VOLATILES/WATER/GCMS	MEK	6.400000	200.0000	.992	14	0	0
575	ES	UM20	VOLATILES/WATER/GCMS	MIBK	3.000000	200.0000	.918	14	0	0
576	ES	UM20	VOLATILES/WATER/GCMS	MNBK	3.600000	200.0000	.917	14	0	0
577	ES	UM20	VOLATILES/WATER/GCMS	STYR	0.500000	200.0000	1.10	14	0	0
578	ES	UM20	VOLATILES/WATER/GCMS	T13DCP	0.700000	280.0000	.964	14	0	0
579	ES	UM20	VOLATILES/WATER/GCMS	TCLEA	0.510000	200.0000	1.03	14	0	0
580	ES	UM20	VOLATILES/WATER/GCMS	TCLEE	1.600000	200.0000	.984	14	0	0
581	ES	UM20	VOLATILES/WATER/GCMS	TRCLE	0.500000	200.0000	1.05	14	0	0
582	ES	UM20	VOLATILES/WATER/GCMS	XYLEN	0.840000	200.0000	1.06	14	0	0
921	ES	UN07	NP-PESTICIDES/WATER/GCFP	ATZ	0.512000	5.0000	1.04	0	7	40
922	ES	UN07	NP-PESTICIDES/WATER/GCFP	DDVP	0.250000	5.0000	.884	0	7	40
923	ES	UN07	NP-PESTICIDES/WATER/GCFP	MLTHN	0.250000	5.0000	.999	0	7	40
924	ES	UN07	NP-PESTICIDES/WATER/GCFP	PRTHN	0.250000	5.0000	.983	0	7	40
925	ES	UN07	NP-PESTICIDES/WATER/GCFP	SUPONA	0.235000	4.7000	1.00	0	7	40
873	ES	UN08	NITROSAMINES/WATER/GC-NPD	24DNT	0.341000	5.0000	.979	0	7	40
872	ES	UN08	NITROSAMINES/WATER/GC-NPD	26DNT	0.250000	5.0000	.964	0	7	40
875	ES	UN08	NITROSAMINES/WATER/GC-NPD	NB	0.285000	5.0000	1.00	0	7	40
874	ES	UN08	NITROSAMINES/WATER/GC-NPD	NNDNPA	0.294000	5.0000	1.03	0	7	40
871	ES	UN08	NITROSAMINES/WATER/GC-NPD	NNDPA	0.250000	5.0000	.968	0	7	40
836	ES	UO02	VOLATILES/WATER/GCDUAL	111TCE	2.900000	50.0000	1.08	14	0	0
837	ES	UO02	VOLATILES/WATER/GCDUAL	112TCE	0.332000	49.0000	1.10	14	0	0
838	ES	UO02	VOLATILES/WATER/GCDUAL	11DCE	0.393000	51.0000	1.06	14	0	0
839	ES	UO02	VOLATILES/WATER/GCDUAL	11DCLE	0.334000	49.5000	1.03	14	0	0
842	ES	UO02	VOLATILES/WATER/GCDUAL	12DCLE	2.950000	49.0000	1.08	14	0	0
843	ES	UO02	VOLATILES/WATER/GCDUAL	12DCLP	3.160000	49.0000	1.09	14	0	0
844	ES	UO02	VOLATILES/WATER/GCDUAL	13DCLB	1.340000	50.0000	.921	14	0	0
845	ES	UO02	VOLATILES/WATER/GCDUAL	13DMB	1.560000	49.5000	1.00	14	0	0
846	ES	UO02	VOLATILES/WATER/GCDUAL	2CLEVE	22.100000	49.5000	1.11	14	0	0
847	ES	UO02	VOLATILES/WATER/GCDUAL	BRDCLM	3.060000	50.5000	1.11	14	0	0
848	ES	UO02	VOLATILES/WATER/GCDUAL	C13DCP	3.230000	48.5000	1.08	14	0	0
849	ES	UO02	VOLATILES/WATER/GCDUAL	C2H3CL	2.070000	50.0000	1.16	14	0	0
850	ES	UO02	VOLATILES/WATER/GCDUAL	C2H5CL	1.600000	50.0000	1.24	14	0	0
851	ES	UO02	VOLATILES/WATER/GCDUAL	C6H6	0.651000	49.0000	1.07	14	0	0
868	ES	UO02	VOLATILES/WATER/GCDUAL	CCL2F2	2.040000	50.0000	1.25	14	0	0
869	ES	UO02	VOLATILES/WATER/GCDUAL	CCL3F	0.503000	51.5000	1.06	14	0	0
852	ES	UO02	VOLATILES/WATER/GCDUAL	CCL4	2.810000	49.0000	1.03	14	0	0
853	ES	UO02	VOLATILES/WATER/GCDUAL	CH2CL2	3.100000	49.0000	1.05	14	0	0
867	ES	UO02	VOLATILES/WATER/GCDUAL	CH3BR	2.680000	50.0000	1.20	14	0	0
854	ES	UO02	VOLATILES/WATER/GCDUAL	CH3CL	1.980000	50.0000	1.04	14	0	0
855	ES	UO02	VOLATILES/WATER/GCDUAL	CHBR3	4.030000	52.0000	1.06	14	0	0
856	ES	UO02	VOLATILES/WATER/GCDUAL	CHCL3	1.260000	50.0000	1.05	14	0	0
841	ES	UO02	VOLATILES/WATER/GCDUAL	CL2BZ	6.220000	111.0000	.994	14	0	0
857	ES	UO02	VOLATILES/WATER/GCDUAL	CLC6H5	0.582000	50.5000	.988	14	0	0
858	ES	UO02	VOLATILES/WATER/GCDUAL	DBRCLM	0.352000	51.5000	1.10	14	0	0
859	ES	UO02	VOLATILES/WATER/GCDUAL	ETC6H5	0.857000	49.5000	.999	14	0	0
860	ES	UO02	VOLATILES/WATER/GCDUAL	MEC6H5	0.716000	49.5000	1.04	14	0	0
840	ES	UO02	VOLATILES/WATER/GCDUAL	T12DCE	0.427000	49.0000	1.04	14	0	0
861	ES	UO02	VOLATILES/WATER/GCDUAL	T13DCP	0.326000	49.5000	1.10	14	0	0
862	ES	UO02	VOLATILES/WATER/GCDUAL	TCLEA	1.090000	52.0000	.953	14	0	0
863	ES	UO02	VOLATILES/WATER/GCDUAL	TCLEE	0.677000	51.0000	.996	14	0	0
864	ES	UO02	VOLATILES/WATER/GCDUAL	TRCLE	3.590000	50.0000	1.05	14	0	0
870	ES	UO02	VOLATILES/WATER/GCDUAL	XYLEN	1.730000	102.0000	.995	14	0	0
945	ES	UT02	ORGANICS/WATER/IC	FC2A	100.000000	9000.0000	1.01	40	0	0
943	ES	UT02	ORGANICS/WATER/IC	IMPA	100.000000	9000.0000	.991	40	0	0
944	ES	UT02	ORGANICS/WATER/IC	MPA	128.000000	9000.0000	1.02	40	0	0
346	ES	UU9	ORGANOSULFURS/SOIL/GCFP	BTZ	1.080000	13.2000	.788	0	7	40
347	ES	UU9	ORGANOSULFURS/SOIL/GCFP	CPMS	1.080000	21.6000	.999	0	7	40
348	ES	UU9	ORGANOSULFURS/SOIL/GCFP	CPMSO	2.250000	45.0000	1.02	0	7	40
349	ES	UU9	ORGANOSULFURS/SOIL/GCFP	CPMSO2	2.370000	47.4000	.790	0	7	40
350	ES	UU9	ORGANOSULFURS/SOIL/GCFP	DITH	0.571000	11.4000	.916	0	7	40
351	ES	UU9	ORGANOSULFURS/SOIL/GCFP	DMDS	0.692000	13.8000	.946	0	7	40
352	ES	UU9	ORGANOSULFURS/SOIL/GCFP	OXAT	0.856000	17.1000	.930	0	7	40
353	ES	UW04	HERBICIDES/WATER/HPLC	BRMCIL	3.830000	61.5000	.961	40	0	0
467	ES	UW14	EXPLOSIVES/WATER/HPLC	135TNB	0.626000	42.1000	.817	0	56	40
468	ES	UW14	EXPLOSIVES/WATER/HPLC	13DNB	0.519000	40.1000	.832	0	56	40
471	ES	UW14	EXPLOSIVES/WATER/HPLC	246TNT	0.588000	40.2000	.855	0	56	40
473	ES	UW14	EXPLOSIVES/WATER/HPLC	24DNT	0.612000	40.2000	.835	0	56	40
472	ES	UW14	EXPLOSIVES/WATER/HPLC	26DNT	1.150000	52.4000	.767	0	56	40
465	ES	UW14	EXPLOSIVES/WATER/HPLC	HMX	1.650000	28.9000	.932	0	56	40
469	ES	UW14	EXPLOSIVES/WATER/HPLC	NB	1.070000	54.9000	.795	0	56	40
466	ES	UW14	EXPLOSIVES/WATER/HPLC	RDX	2.110000	43.9000	.851	0	56	40
70	ES	UW14	EXPLOSIVES/WATER/HPLC	TETRYL	0.556000	44.5000	.749	0	56	40
475	ES	UW17	EXPLOSIVES/WATER/HPLC	NQ	30.900000	620.0000	.956	0	56	40
760	ES	UW18	PHENOLS/WATER/HPLC	246TCP	1.900000	111.0000	.743	0	7	40
754	ES	UW18	PHENOLS/WATER/HPLC	24DCLP	0.617000	115.0000	.739	0	7	40
753	ES	UW18	PHENOLS/WATER/HPLC	2CLP	1.690000	88.0000	.623	0	7	40
756	ES	UW18	PHENOLS/WATER/HPLC	2NP	0.363000	27.2000	.684	0	7	40
755	ES	UW18	PHENOLS/WATER/HPLC	46DN2C	0.295000	25.8000	.700	0	7	40
752	ES	UW18	PHENOLS/WATER/HPLC	4CL3C	5.560000	69.7000	.693	0	7	40

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

deionized water before replacing the filling solution. This step prevents clogging of the probe and poor (<100 percent) slope adjustments when calibrating the electrode. Whenever slope readings deteriorate or a low ionic strength sample gives erroneous readings, the electrode will be treated with 1N KOH and 1N HCl.

Spare parts such as a replacement probe and fresh buffer solutions will be available for the system at all times.

2.3 BECKMAN CONDUCTIVITY BRIDGE AND CELL

Maintain the conductivity bridge by keeping the rechargeable battery fully charged. Store the conductivity cell in deionized water. Replatinization of the conductivity cell is performed according to Standard Methods (p. 74) only when the cell response becomes erratic, when a sharp end point cannot be obtained, or when any of the platinum black appears to have flaked off.

2.4 YSI DISSOLVED OXYGEN METER AND PROBE

Preventive maintenance procedures for the meter involves verifying that the mechanical zero is properly set and ensuring that the batteries are fully charged to red-line the instrument. The meter is shipped to the manufacturer for repair if any other problems exist. The Model 5420 BOD probe and the Model 5418 and 5419 probes are kept ready by storing in a moist atmosphere. Probe temperature readings are verified by comparison to the readings on a mercury thermometer. The DO Probe membrane is replaced before using the instrument in the field. The membrane must be replaced at least 24 hours before use to ensure stable readings during a large number of DO analyses. Probe replacement is necessary when the probe will not calibrate properly or when there are air bubbles under the membrane. Spare parts will be available for system components most likely to experience failure.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

2.5 GC

Gas chromatograph (GC) septa will be replaced weekly, or more frequently when symptoms of septum deterioration are noted. Frequent injections will require daily replacement. To prevent contaminants from reaching the detector or columns, carrier and detector gases will be changed when cylinder pressure falls below 100 psi. Molecular sieves and oxygen traps used in the gas lines will be replaced regularly. GC detectors will be removed and cleaned periodically to remove accumulations which can affect instrument performance. Instrument calibration curves will be monitored and compared to historical performance. Excessive noise, low response, and poor precision indicate a dirty detector and probably require detector cleaning. Spare columns, packing materials, instrument cables, and some PC boards will be available to minimize instrument downtime.

2.6 GC/MS

All routine preventive maintenance performed for gas chromatograph also will be performed for the gas chromatograph/mass spectrophotometers (GC/MS). In addition, the ionizing source will be periodically dismantled, thoroughly cleaned, and reassembled to prevent serious sensitivity problems. Calibration with selected mass standards will be performed daily to ensure that instrument performance has not deteriorated. Failure to achieve calibration will require source cleaning. Spare parts and equipment will be available for the system components most likely to fail. Routine maintenance by the manufacturers' representatives will be performed annually.

2.7 ANALYTICAL BALANCE

Analytical balances will be cleaned and calibrated semiannually by manufacturers' representatives. Balance accuracy will be checked daily using standard weights. The balance logbooks will be maintained daily.

THE INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED COPY.
DO NOT DUPLICATE

2.8 ICAP

Routine maintenance of the inductively coupled argon plasma (ICAP) system by the manufacturer's representatives will be performed annually. In addition, a quarterly service contract will be maintained on the supporting minicomputer. Periodically, the analyst will dismantle, clean, and reassemble the torch and nebulizer to prevent serious sensitivity problems. Calibration with selected standards will be performed daily to ensure that instrument performance has not deteriorated. Failure to achieve standardization could require cleaning, including changing the tubing of the sample delivery system. Spare parts will be available for the system components most likely to fail.

2.9 AAS

Routine preventive maintenance on the atomic absorption spectrophotometry (AAS) primarily consists of keeping components clean (to prevent acid corrosion), replacement of expendables, and monitoring instrument response. Instrumental response is compared to historical data and the manufactures' performance specifications to verify instrument sensitivity. Sample cells (e.g., graphite furnace, hydride cell, and burner/spray chamber) will be cleaned periodically to prevent serious contamination. Sufficient stock of spare parts and expendables will be kept to ensure continuous operation. Manufacturers' service representatives will inspect instrument optics and other components at least once per year.

2.10 HPLC

The high-pressure liquid chromatograph (HPLC) check values will be replaced every 6 months, and pump seals will be replaced as needed (usually annually). Pumps will be tested for flow rate accuracy monthly. Analytical columns will generally be protected by use of 3 to 5 cm pellicular guard columns.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

APPENDIX D

Example SOPs for reports and Comparison with CLP

THE INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table of Contents
Appendix D

D.1 Delivery Order Report Format

D.2 Lot Folder Organization

a. Organics Packet Format Example
b. Inorganic Packet Format Example

D.3 Comparison of USATHAMA/CLP Data Packages

a. Document Inventory
b. Organic Packages
c. Inorganic Packages

ALL DATA CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

D.1

Example of
Delivery Order Report
Format

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

DOCUMENT INVENTORY FOR:

_____

ESE (contract lab.)

ENCLOSED ARE THE FOLLOWING ITEMS IN ORDER OF APPEARANCE:

		NO. OF PAGES
1)	EXPLANATION PACKET OF THE ITEMS BELOW.	_____
2)	DELIVERY ORDER/S:	
	A) _____	
	B) _____	_____
	C) _____	_____
	D) _____	_____
	E) _____	_____
		_____
3)	SAMPLE ARRIVAL/ CUSTODY FORMS;	_____
4)	ANALYSIS REPORT (ESE FORMAT);	_____
5)	BATCH REPORT;	_____
6)	LOT REPORT;	_____
7)	LOT SUMMARY (LOT, TYPE OF ANALYSIS, SAMPLES IN LOT, ETC.);	_____
8)	CHEMICAL SUMMARY REPORT;	_____
9)	COMMUNICATION (DISPOSITION LETTERS, ETC.);	_____
10)	LOTS IN REPORT; NO. OF LOT FOLDERS	_____

COMMENTS:

THE INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

OUTLINE AND EXPLANATION OF THE LOGSHEET

The following form is a copy of the Field Logsheet, which serves as the chain-of-custody form between the field team and the receiving analytical laboratory.

1) The field group name is in bold at the top center of the form. Every field group name is unique and cannot be duplicated once established.
2) The numbers down the left hand side of the log sheet are the ESE sample sequence numbers for the unique field group.
3) The SITE/STATION I.D. is a site or location definition for that particular field group/ sample number combination. The site name is stored in the USATHAMA Data Management system with a associated map file. The site I.D. is to be defined prior to sampling to prevent mix ups of samples.
4) The FRACTIONS is a quick list of the type of parameters and containers to be taken for that ESE sample number. (i.e. W for extractable organics, N for metals, VP for volatile organics)
5) The DATE and TIME is the date and time that the sample was taken.
6) The PARAMETER LIST is the list name of the compounds and elements that the sample is to be analyzed for.
7) The rest of the logsheet is for comments about the sample of field information.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

ENVIRONMENTAL SCIENCE & ENGINEERING 10-27-87 *** FIELD LOGSHEET *** FIELD GROUP: TESTFG

PROJECT NUMBER 86434 0120 PROJECT NAME: TEST - NWS LAB COORD. LISA BARE

(1) TESTFG

ESE # (2)	SITE/STA (3)	HAZ?	FRACTIONS(CIRCLE) (4)	DATE	(5) TIME	PARAMETER LIST (6)	(7)
*1	WS-7		C N UP V V V W W W TR			SITE8W	
*2	WS-8		C N UP V V V W W W TR			SITE8W	
*3	WS-9		C N UP V V V W W W TR			SITE8W	
*4	WS-10		C N UP V V V W W W TR			SITE8W	
*5	WS-11		C N UP V V V W W W TR			SITE8W	
*6	SSL-1		C N UP V V V W W W TR			SITE8W	
*7	SSL-2		C N UP V V V W W W TR			SITE8W	
*8	WS-1		C N UP V V V W W W TR			SITE8W	
*9	WS-2		C N UP V V V W W W TR			SITE8W	
*10	WS-3		C N UP V V V W W W T			SITE8W	
*11	WS-4		C N UP V V V W W W R			SITE8W	
*12	NSL-1		C N UP V V V W W W TR			SITE8W	
*13	NSL-2		C N UP V V V W W W TR			SITE8W	
*14	NSL-3		C N UP V V V W W TR			SITE8W	

NOTE -CHANGE OR ENTER SITE ID AS NECESSARY; UP TO 9 ALPHANUMERIC CHARACTERS MAY BE USED
-CIRCLE FRACTIONS COLLECTED. ENTER DATE,TIME,FIELD DATA (IF REQUIRED), HAZARD CODE AND NOTES
-HAZARD CODES: I -IGNITABLE C -CORROSIVE R -REACTIVE T -TOXIC-HAZE H -OTHER ACUTE HAZARD: IDENTIFY SPECIFICS IF KNOWN
-PLEASE RETURN LOGSHEETS WITH SAMPLES TO ESE

RELINQUISHED BY: (NAME/ORGANIZATION/DATE/TIME) RECEIVED BY (NAME/ORGANIZATION/DATE/TIME)

1

2

3

OTHER FIELD NOTES FOR FIELD GROUP TESTFG:

DO NOT DUPLICATE

DO NOT DUPLICATE

OUTLINE AND EXPLANATION OF THE BATCH REPORT

The batch report is a listing of all the batches associated with the samples in a particular field group.

The batch for a particular sample analyte combination can be found by looking down the analyte column and across the sample row until the two intersect. At that junction is the batch number for that sample/ analyte combination.

Looking down the second column of the Lot Summary Report, one can find which Lot that batch and the raw data are in.

A minus sign before a number denotes manually inputted data and no batch is associated with that parameter/ analyte. (Note: This is most often common with field data.)

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

USATHAMA LOT REPORT

The Lot Report is a quick cross reference of all the lots associated with the samples in a particular field group.

The lot for a specific sample and analyte combination can be found by looking down the analyte column and across the sample row until the two meet. At that junction is the lot for that sample/analyte combination.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS DOCUMENT IS CONFIDENTIAL
DO NOT DUPLICATE

OUTLINE AND EXPLINATION OF THE LOT SUMMARY REPORT

The Lot Summary Report is a quick reference of which samples are in which lot or batch.

1) The first column is the Lot name or number, each is unique and not repeatable.
2) The second column (Batch) is the batch associated with the Lot.
3) The third column (Analysis) is the method name of the analysis done for the samples in the indicated batch or lot.
4) The Sample Date column is the earliest sampling data within that lot.
5) The fifth column (LEV1.ACT.) is the date that the data within the lot was sent to PRI through IRDMS.
6) The BATCH SAMP column is a list of all the ESE samples within the lot and batch.
7) The last column (SAMP.ID) are the station I.D.s for the respective samples.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

EXPLANATION OF THE CHEMICAL SUMMARY REPORT

The April 1988 version of the Chemical Summary Report is a USATHAMA Program with access given to ESE to generate the report from data sent to USATHAMA.

The data must have been loaded into the Army Record Check program or the Chemical Summary Report will not accept the data and print the report.

PRI receives uncorrected data through IRDMS, where the data is rounded to 3 significant figures and then calculated for % moisture, dilutions, and accuracy. The data is then rerounded to its three significant figures.

The report contains all the analytes and site I.D.s on a per sample format.

[illegible] CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

LOTS IN REPORT

This is the bulk of the report. The number of lots are given in the inventory cover sheet and the lots are filed in order according to the Lot Summary Report.

The lots contain the following information:

a) Raw Data, including calibration data, dilution factors, calibration plots, raw data spectra and chromatograms, strip charts, quantitation reports, data printouts, digestion logs, and copies of laboratory notebooks/logbooks.

b) Sample tracking records between the extraction technician and the analyst.

c) Each lot has a tracking sheet at the front of the lot folder to track the lot folder from the analyst through the data management and review systems, until validation.

d) The data batch report incorporates the samples run in that batch, the parameters, the calibration curve, QC, and uncorrected final concentrations.

e) The validated batch report contains all that is in Sec. d, but the final concentrations have been corrected for percent moisture and dilutions.

f) The lot folder includes a random number report used in the QA review system.

g) The lot folder also includes a group-check report which confirms that all the sites in the field group have map records. This reports also checks the QC of the batch.

h) TRR is the transfer file so that the data are in an acceptable format to go to PRI.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN HEA

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

EXPLANATION OF THE COMMUNICATION SECTION

The Communication Section is made up of, but not limited to, disposition submittal and acceptance letters. This section includes any correspondence between USATHAMA and ESE regarding the samples and analysis of the installation in question.

ANY INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

EXPLANATION OF THE ESE ANALYSIS REPORT

This report contains the concentrations for the analysis performed on the samples for the field group in question. The analysis report is set up with sample numbers on the left and analytes across the top. To find the concentration of an analyte for a particular sample, look down the analyte column and across the sample row until the two meet, at this junction is the concentration for that sample/ analyte combination.

The reports are set up by methods so that the data of one method is not intermixed with the data of another method.

As per the 1985 QC Plan, ESE does not round any of the results to three significant figures until all of the calculations for % moisture, dilutions and accuracy have been made. This systems differs from the army method of calculating data so some disagreements in some of the results may occur. (Please see the section on the Chemical Summary Report for a review of the army data handling method.)

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

THE DOCUMENT INVENTORY FORM

The Document Inventory Form is a quick list of the contents of the report. The items are listed in order of appearance.

1) The Delivery Order Section lists the delivery orders and the number of pages for each delivery order associated with the particular field effort.
2) The comment section will list all the deviations within the report.

THE INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

D.2

Lot Folder Organization

THE INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

D.2.a Organics Packet format example

THE INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

USATHAMA

TABLE OF CONTENTS - GC/MS METHODS

A. TRANSMITTAL DOCUMENTS (to be supplied by Information Services)

_____1. Army Data Review Form

_____2. IRDMS Transfer File

_____3. Results of IRDMS Record and Group Check

B. ANALYST DOCUMENTS

_____1. Method Summary (supplied by Info. Services)

_____2. ESE Data Batch Report, with:
- a. Analyst Signature
- b. Computer Checklist
- c. Manual Checklist

_____3. Completed Control Chart and Comment/Corrective Action Form

_____4. Laboratory Chronicle:
- a. ESE GC/MS Instrument Logsheet
- b. Copies of CLP/Pesticides Calibration Standards Notebook Pages
- c. Extraction Data Sheet

_____5. Chain-of-Custody and Possession Records
- a. Field Chain-of-Custody Sheets (supplied by Information Services)
- b. Laboratory Chain-of-Custody Sheets

_____6. Initial Calibration Forms
- a. Five point Initial Calibration with RFS, RF and % RSD (Form VI)
- b. Quantitation Report, Total Ion Chromatograms and Spectral Comparison

_____7. GC/MS Performance Tuning (Form V)

_____8. Continuing Calibration Forms
- a. Beginning Run (50 ug/mL)
  - * Form VI - Daily RF, VS, Initial RF
  - * RF list used to Quantitate Targets Analyses
  - * Quantitation Report, Total Ion Chromatograms and Spectral Comparison
- b. End Run (50 ug/mL)
  - * Form VI - Daily RF, VS, Initial RF
  - * Quantitation Report, Total Ion Chromatograms and Spectral Comparison

_____9. GC/MS Chromatograms and Spectral Data (for sample, matrix spikes and blank)
- a. Quantitation Reports, Total Ion Chromatograms and Spectral Comparison

_____10. One or two Examples of Calculations Performed

_____11. Pre-screen Raw Data (if applicable)

C. Appendix

1. Preliminary Data, Unused Data (if applicable)
2. ESE Review Files (QA and Lab Coordinator)
3. USATHAMA Review Files (QA and Lab Coordinator)

THIS DOCUMENT CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

FINAL CHECKOFF LIST PRIOR TO TRANSMISSION OF USATHAMA LOT DATA

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

The following information should be contained in this USATHAMA Lot Folder prior to transferring custody of the folder to the Sample Control Center.

NA* or check if present		Required Information
_____	_____	Completed Control Chart or Comment/Corrective Action Form (if applicable)
_____	_____	Sample extraction date (if applicable)
_____	_____	Sample analysis date (with analysts initials)
_____	_____	Subsample chain-of-custody (Extraction/Digestion Data Sheet, etc.), if applicable.
_____	_____	All raw data (chromatograms - labelled, numbered, target peak identified.)
_____	_____	Analytical conditions
_____	_____	Calibration curve (concentration vs. response, correlation coefficient)
_____	_____	Responses (area counts, peak heights, etc.) of samples, spikes and standards.
_____	_____	Reduction sheets (if applicable)
_____	_____	Example of how calculations are performed
_____	_____	Final data
_____	_____	Copies of instrument log book pages
_____	_____	Copies of standard preparation log book pages

_____ _____ (INITIALS)
QA Staff Analyst

_____ _____ (DATE)

* NA = Not Applicable

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

COMMENT/CORRECTIVE ACTION FORM
USATHAMA CONTROL CHARTS

USATHAMA LOT _____ USATHAMA METHOD _____ DATE ANALYZED _____

COMMENTS PROVIDED BY _____ DATE _____

QC CHART SITUATIONS TO BE ADDRESSED:

* A value outside the control limits.
* A series of successive points on the same side of the central line.
* A series of successive points going in one direction.
* A cyclical representation of control values.
* Two consecutive points between the Warning and Control Limits.

COMMENTS: _____

CORRECTIVE ACTIONS TAKEN: _____

Reviewed By:

Group Leader/Department Mgr. _____ Date _____

Laboratory Coordinator _____ Date _____

Quality Assurance Coordinator _____ Date _____

Other (specify title/name) _____ Date _____

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

D-RMA.1/SAMPCON-EDS.1
12/07/84

EXTRACTION DATA SHEET

Page _____ of _____

Project Name: _____
Project Number: _____
Analytical Method Number: _____ Lot Number: _____

Sample Number	Fraction Used	Extraction Date	Extractor	Initial Volume (ml) or Initial Weight (g-wet)	Final Volume (ml)	Comments (Use Page 3 for more comments; include QC spike data--surrogate spike data.)

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.4.c

REPRODUCTION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

EXTRACTION DATA SHEET
(Continued)

Project Name: _____
Project Number: _____
Analytical Method Number: _____ Lot Number: _____

Sample Number	Date Extract Relinquished	Relinquished By	Received By	Date Extract Relinquished	Relinquished By	Received By	Date Extract Relinquished	Relinquished By	Received By	Comments

THIS DOCUMENT CONTAINS PAGES SUBJECT TO THE RESTRICTIONS NOTED IN THE
DO NOT DUPLICATE

D-RMA.1/SAMPCON-EDS.3
12/07/84

EXTRACTION DATA SHEET
(Continued)

Page _____ of _____

Project Name: _____
Project Number: _____
Analytical Method Number: _____ Lot Number: _____

Sample Number	Additional Comments

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

THIS DOCUMENT CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED ON THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.5.a

THE FIELD SAMPLE-CUSTODY FORMS FOR THE SAMPLES WITHIN THIS LOT ARE IN THE FRONT PORTION OF THE FINAL DELIVERY ORDER REPORT. SEE THE DOCUMENT INVENTORY FORM.

D.O.#	INSTALLATION

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

NOTE: ***SOME OF THE SAMPLES IN THIS LOT ARE FROM OTHER USATHAMA CONTRACTS. THE CUSTODY FORMS FOR THOSE SAMPLES ARE CURRENTLY AT ESE IN THEIR APPROPRIATE FIELDGROUP FILES. THE LOTS AND CHAIN-OF-CUSTODY FORMS FOR THAT CONTRACT WILL REMAIN AT ESE UNTIL SHIPMENT TO USATHAMA IS REQUESTED.***

FIELDGROUP NAME	***INSTALLATION***

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.5.8

NOTE: ***SOME OF THE SAMPLES IN THIS LOT ARE FROM OTHER USATHAMA CLASS DELIVERY ORDERS. THE CUSTODY FORMS FOR THOSE SAMPLES ARE IN THEIR APPROPRIATE FINAL DELIVERY ORDER REPORTS. (SEE DOCUMENT INVENTORY FORM FOR THAT D.O. REPORT)***

ESE FIELDGROUP NAMES FOR SAMPLES ASSOCIATED WITH THIS LOT ARE:

FIELDGROUP NAME	D.O. #	INSTALLATION

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

D.2.b Inorganic Packet format example

[illegible] CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED [illegible]

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

LOT FOLDER ORGANIZATION - the following items will be numbered and placed in the lot folder in the order indicated:

A. TRANSMITTAL DOCUMENTS (to be supplied by Information Services)

1. Army Data Review Form
2. IRDMS Transfer File
3. Results of IRDMS Record and Group Check

B. ANALYST DOCUMENTS

1. Method Summary (supplied by Information Services)
2. ESE Data Batch Report, with:
   a. Analyst Signature
   b. Computer Checklist
   c. Manual Checklist
   d. Example Calculation
3. Completed Control Chart and Comment/Corrective Action Form
4. Copies of Instrument Logbook Pages with Analytical Conditions
5. Raw Data, with:
   a. Responses (emission/area counts, peak heights, etc.)
   b. Calibration Curve
   c. Changes made properly and initialed.
6. Copies of Sample Extraction/Preparation Logbook Pages
7. Chain-of-Custody and Possession Records
   a. Field Chain-of-Custody Sheets (supplied by Information Services)
   b. Laboratory Subsample Chain-of-Custody

C. APPENDIX

1. Preliminary Data, Unused Data (if applicable)
2. Laboratory Coordinator and QA Review Files
3. Validation File in USATHAMA Format

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

ARMY DATA REVIEW FORM

A.1

ARMY LOT _____ INSTALLATION _____

DATA BATCH _____ METHOD _____

REQUIRED LEVEL TWO DATE _____

	DUE DATE	INITIALS	DATE	COMMENTS
DATA COORDINATOR				
GROUP LEADER				
TASK MANAGER				
DATA COORDINATOR				
QA COORDINATOR DATA (VALIDATION COMPLETE)				
(PACKET COMPLETE)				
DATA COORDINATOR (FILE TRANSMITTED)				

COMMENTS :

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

COMMENT/CORRECTIVE ACTION FORM
USATHAMA CONTROL CHARTS

USATHAMA LOT _____ USATHAMA METHOD _____ DATE ANALYZED _____

COMMENTS PROVIDED BY _____ DATE _____

QC CHART SITUATIONS TO BE ADDRESSED:

* A value outside the control limits.
* A series of successive points on the same side of the central line.
* A series of successive points going in one direction.
* A cyclical representation of control values.
* Two consecutive points between the Warning and Control Limits.

COMMENTS: _____

CORRECTIVE ACTIONS TAKEN: _____

Reviewed By:

Group Leader/Department Mgr. _____ Date _____

Laboratory Coordinator _____ Date _____

Quality Assurance Coordinator _____ Date _____

Other (specify title/name) _____ Date _____

DISTRIBUTION CONTROL NO. ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

D-RMA.1/SAMPCON-EDS.1
12/07/84

EXTRACTION DATA SHEET

Page _____ of _____

Project Name: _____
Project Number: _____
Analytical Method Number: _____ Lot Number: _____

Sample Number	Fraction Used	Extraction Date	Extractor	Initial Volume (ml) or Initial Weight (g-wet)	Final Volume (ml)	Comments (Use Page 3 for more comments; include QC spike data--surrogate spike data.)

THIS IS A CONTROLLED DOCUMENT. DO NOT DUPLICATE

NO SAMPLING CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

B.6

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.7.a

THE FIELD SAMPLE-CUSTODY FORMS FOR THE SAMPLES WITHIN THIS LOT ARE IN THE FRONT PORTION OF THE FINAL DELIVERY ORDER REPORT. SEE THE DOCUMENT INVENTORY FORM.

D.O.#	INSTALLATION

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.7.a

NOTE: ***SOME OF THE SAMPLES IN THIS LOT ARE FROM OTHER USATHAMA CONTRACTS. THE CUSTODY FORMS FOR THOSE SAMPLES ARE CURRENTLY AT ESE IN THEIR APPROPRIATE FIELDGROUP FILES. THE LOTS AND CHAIN-OF-CUSTODY FORMS FOR THAT CONTRACT WILL REMAIN AT ESE UNTIL SHIPMENT TO USATHAMA IS REQUESTED.***

FIELDGROUP NAME	***INSTALLATION***

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.7.a

NOTE: ***SOME OF THE SAMPLES IN THIS LOT ARE FROM OTHER USATHAMA CLASS DELIVERY ORDERS. THE CUSTODY FORMS FOR THOSE SAMPLES ARE IN THEIR APPROPRIATE FINAL DELIVERY ORDER REPORTS. (SEE DOCUMENT INVENTORY FORM FOR THAT D.O. REPORT)***

ESE FIELDGROUP NAMES FOR SAMPLES ASSOCIATED WITH THIS LOT ARE:

FIELDGROUP NAME	D.O. #	INSTALLATION

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

B7.6

Page_____ of_____

METALS SUBSAMPLE CHAIN-OF-CUSTODY

Project Name:_____
Project Number:_____
Analytical Method Number:_____

Lot Number:_____

Sample Number	Fraction Used	Digestion Date	Digestor	Initial Volume (mL) or Weight (g-wet)	Final Volume (mL)	Comments

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

[illegible] CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE [illegible]

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

METALS SUBSAMPLE CHAIN-OF-CUSTODY
(Continued)

Project Name:_____
Project Number:_____
Analytical Method Number:_____

Lot Number:_____

Sample Number	Date Digestate Relinquished	Relinquished By	Received By	Date Digestate Relinquished	Relinquished By	Received By	Comments

Digestate Custodian_____

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

752	ES	UW18	PHENOLS/WATER/HPLC	4NP	0.273000	31.9000	.762	0	7	40
757	ES	UW18	PHENOLS/WATER/HPLC	PCP	1.490000	16.4000	.891	0	7	40
758	ES	UW18	PHENOLS/WATER/HPLC	PHENOL	1.390000	103.0000	.681	0	7	40
737	ES	UW19	EXPLOSIVES/WATER/HPLC	NG	10.000000	200.0000	1.04	0	56	40
746	ES	UW19	EXPLOSIVES/WATER/HPLC	PETN	20.000000	400.0000	1.05	0	56	40
927	ES	UW22	ORGANOSULFURS/WATER/HPLC	TDGCL	48.800000	4880.0000	.687	0	7	40
926	ES	UW22	ORGANOSULFURS/WATER/HPLC	TDGCLA	52.700000	1780.0000	.930	0	7	40
955	ES	UW32	EXPLOSIVES/WATER/HPLC-U	135TNB	0.449000	59.2000	.993	0	56	40
948	ES	UW32	EXPLOSIVES/WATER/HPLC-U	13DNB	0.611000	55.0000	0.95	0	56	40
956	ES	UW32	EXPLOSIVES/WATER/HPLC-U	246TNT	0.635000	112.0000	.911	0	56	40
949	ES	UW32	EXPLOSIVES/WATER/HPLC-U	24DNT	0.063700	21.2000	.929	0	56	40
950	ES	UW32	EXPLOSIVES/WATER/HPLC-U	26DNT	0.073800	24.4000	.985	0	56	40
958	ES	UW32	EXPLOSIVES/WATER/HPLC-U	2A46DT	0.158000	22.0000	.973	0	56	40
959	ES	UW32	EXPLOSIVES/WATER/HPLC-U	2NT	0.406000	122.6000	.936	0	56	40
960	ES	UW32	EXPLOSIVES/WATER/HPLC-U	3NT	1.400000	116.8000	.934	0	56	40
957	ES	UW32	EXPLOSIVES/WATER/HPLC-U	4A26DT	1.570000	20.8000	1.12	0	56	40
961	ES	UW32	EXPLOSIVES/WATER/HPLC-U	4NT	1.110000	120.4000	.913	0	56	40
951	ES	UW32	EXPLOSIVES/WATER/HPLC-U	HMX	1.210000	120.8000	1.00	0	56	40
952	ES	UW32	EXPLOSIVES/WATER/HPLC-U	NB	0.645000	129.0000	.919	0	56	40
953	ES	UW32	EXPLOSIVES/WATER/HPLC-U	RDX	1.170000	116.8000	.952	0	56	40
954	ES	UW32	EXPLOSIVES/WATER/HPLC-U	TETRYL	2.489000	107.5000	1.00	0	56	40
354	ES	V8	PESTICIDES/WATER/GCEC	DBCP	0.112000	2.0100	.825	0	7	40
355	ES	V9	METALS/SOIL/CVAA	HG	0.050000	1.0000	1.02	28	0	0
356	ES	VV9	PESTICIDES/SOIL/GCNPD	ATZ	0.251000	5.0200	.915	0	7	40
357	ES	VV9	PESTICIDES/SOIL/GCNPD	DDVP	0.700000	5.1500	.681	0	7	40
358	ES	VV9	PESTICIDES/SOIL/GCNPD	MLTHN	0.251000	5.0200	.929	0	7	40
359	ES	VV9	PESTICIDES/SOIL/GCNPD	PRTHN	0.251000	5.0100	.898	0	7	40
360	ES	VV9	PESTICIDES/SOIL/GCNPD	SUPONA	0.250000	4.9900	.862	0	7	40
361	ES	W8	AROMATICS/WATER/GCPID	13DMB	1.350000	8.6800	.972	14	0	0
362	ES	W8	AROMATICS/WATER/GCPID	C6H6	1.340000	8.6700	.959	14	0	0
363	ES	W8	AROMATICS/WATER/GCPID	ETC6H5	1.280000	8.9000	1.10	14	0	0
364	ES	W8	AROMATICS/WATER/GCPID	MEC6H5	1.210000	8.5500	.962	14	0	0
365	ES	W8	AROMATICS/WATER/GCPID	XYLEN	2.470000	17.5000	.966	14	0	0
366	ES	W9	VOLATILES/SOIL/GCMS	111TCE	0.250000	25.0000	.955	0	7	40
367	ES	W9	VOLATILES/SOIL/GCMS	112TCE	0.250000	25.0000	1.01	0	7	40
368	ES	W9	VOLATILES/SOIL/GCMS	11DCLE	0.250000	25.0000	1.02	0	7	40
369	ES	W9	VOLATILES/SOIL/GCMS	12DCD4	0.850000	25.0000	1.02	0	7	40
370	ES	W9	VOLATILES/SOIL/GCMS	12DCE	0.250000	25.0000	1.00	0	7	40
371	ES	W9	VOLATILES/SOIL/GCMS	12DCLE	0.280000	25.0000	1.02	0	7	40
372	ES	W9	VOLATILES/SOIL/GCMS	13DMB	0.250000	25.0000	1.05	0	7	40
373	ES	W9	VOLATILES/SOIL/GCMS	BCHPD	0.250000	25.0000	1.05	0	7	40
374	ES	W9	VOLATILES/SOIL/GCMS	C6H6	0.250000	25.0000	1.06	0	7	40
375	ES	W9	VOLATILES/SOIL/GCMS	CCL4	0.250000	25.0000	1.03	0	7	40
376	ES	W9	VOLATILES/SOIL/GCMS	CD2CL2	1.100000	25.0000	.955	0	7	40
377	ES	W9	VOLATILES/SOIL/GCMS	CH2CL2	0.250000	25.0000	.964	0	7	40
378	ES	W9	VOLATILES/SOIL/GCMS	CHCL3	0.250000	25.0000	1.06	0	7	40
379	ES	W9	VOLATILES/SOIL/GCMS	CLC6H5	0.250000	25.0000	1.04	0	7	40
380	ES	W9	VOLATILES/SOIL/GCMS	DBCP	0.330000	25.0000	.980	0	7	40
381	ES	W9	VOLATILES/SOIL/GCMS	DCPD	0.270000	27.0000	1.07	0	7	40
382	ES	W9	VOLATILES/SOIL/GCMS	DMDS	0.250000	25.0000	1.03	0	7	40
383	ES	W9	VOLATILES/SOIL/GCMS	ETBD10	0.730000	25.0000	1.06	0	7	40
384	ES	W9	VOLATILES/SOIL/GCMS	ETC6H5	0.250000	25.0000	1.06	0	7	40
385	ES	W9	VOLATILES/SOIL/GCMS	MEC6H5	0.250000	25.0000	1.05	0	7	40
386	ES	W9	VOLATILES/SOIL/GCMS	MIBK	0.500000	25.0000	.935	0	7	40
387	ES	W9	VOLATILES/SOIL/GCMS	TCLEE	0.250000	25.0000	1.04	0	7	40
388	ES	W9	VOLATILES/SOIL/GCMS	TRCLE	0.250000	25.0000	1.03	0	7	40
389	ES	W9	VOLATILES/SOIL/GCMS	XYLEN	0.500000	50.0000	1.09	0	7	40
390	ES	WW9	AROMATICS/SOIL/GCPID	13DMB	0.053000	4.2800	.930	14	0	0
391	ES	WW9	AROMATICS/SOIL/GCPID	C6H6	0.081000	4.3400	.945	14	0	0
392	ES	WW9	AROMATICS/SOIL/GCPID	ETC6H5	0.043000	4.2700	.952	14	0	0
393	ES	WW9	AROMATICS/SOIL/GCPID	MEC6H5	0.096000	4.3000	1.00	14	0	0
394	ES	WW9	AROMATICS/SOIL/GCPID	XYLEN	0.086000	8.6400	.894	14	0	0
395	ES	X8	ANIONS/WATER/IONCHROM	CL	4800.000000	300000.0000	.910	28	0	0
396	ES	X8	ANIONS/WATER/IONCHROM	F	1220.000000	10000.0000	1.03	28	0	0
397	ES	X8	ANIONS/WATER/IONCHROM	SO4	10000.000000	600000.0000	1.00	28	0	0
398	ES	XX9	ANIONS/SOIL/IONCHROM	CL	16.400000	205.0000	.994	28	0	0
399	ES	XX9	ANIONS/SOIL/IONCHROM	F	4.500000	51.2000	.871	28	0	0
400	ES	XX9	ANIONS/SOIL/IONCHROM	SO4	95.300000	512.0000	.988	28	0	0
401	ES	Y8	HALOCARBONS/WATER/GCCON	111TCE	1.700000	196.0000	1.15	14	0	0
402	ES	Y8	HALOCARBONS/WATER/GCCON	112TCE	1.000000	196.0000	1.03	14	0	0
403	ES	Y8	HALOCARBONS/WATER/GCCON	11DCE	1.100000	196.0000	1.17	14	0	0
404	ES	Y8	HALOCARBONS/WATER/GCCON	11DCLE	1.200000	194.0000	1.15	14	0	0
405	ES	Y8	HALOCARBONS/WATER/GCCON	12DCE	1.200000	194.0000	1.17	14	0	0
406	ES	Y8	HALOCARBONS/WATER/GCCON	12DCLE	0.610000	196.0000	1.03	14	0	0
407	ES	Y8	HALOCARBONS/WATER/GCCON	CCL4	2.400000	200.0000	1.01	14	0	0
408	ES	Y8	HALOCARBONS/WATER/GCCON	CH2CL2	5.000000	198.0000	1.03	14	0	0
409	ES	Y8	HALOCARBONS/WATER/GCCON	CHCL3	1.400000	194.0000	1.17	14	0	0
410	ES	Y8	HALOCARBONS/WATER/GCCON	CLC6H5	0.580000	200.0000	1.08	14	0	0
411	ES	Y8	HALOCARBONS/WATER/GCCON	TCLEE	1.300000	196.0000	1.06	14	0	0
412	ES	Y8	HALOCARBONS/WATER/GCCON	TRCLE	1.100000	194.0000	1.10	14	0	0
413	ES	YY8	AGENTPRODS/WATER/HPLC	TDGCL	65.900000	4880.0000	.688	0	7	40
414	ES	YY8	AGENTPRODS/WATER/HPLC	TDGCLA	52.700000	1780.0000	.930	0	7	40
415	ES	YY9	HALOCARBONS/SOIL/GCCON	111TCE	0.120000	0.9800	1.08	14	0	0
416	ES	YY9	HALOCARBONS/SOIL/GCCON	112TCE	0.120000	1.0000	1.09	14	0	0

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

417	ES	YY9	HALOCARBONS/SOIL/GCCON	11DCE	0.120000	0.9400	1.12	14	0	0
418	ES	YY9	HALOCARBONS/SOIL/GCCON	11DCLE	0.130000	0.9700	1.09	14	0	0
419	ES	YY9	HALOCARBONS/SOIL/GCCON	12DCE	0.150000	1.0200	1.16	14	0	0
420	ES	YY9	HALOCARBONS/SOIL/GCCON	12DCLE	0.080000	1.0000	1.10	14	0	0
421	ES	YY9	HALOCARBONS/SOIL/GCCON	CCL4	0.120000	1.0300	1.00	14	0	0
422	ES	YY9	HALOCARBONS/SOIL/GCCON	CH2CL2	0.150000	0.9900	1.10	14	0	0
423	ES	YY9	HALOCARBONS/SOIL/GCCON	CHCL3	0.100000	1.0400	1.04	14	0	0
424	ES	YY9	HALOCARBONS/SOIL/GCCON	CLC6H5	0.180000	1.0200	1.11	14	0	0
425	ES	YY9	HALOCARBONS/SOIL/GCCON	TCLEE	0.120000	1.0100	1.03	14	0	0
426	ES	YY9	HALOCARBONS/SOIL/GCCON	TRCLE	0.090000	1.0000	1.06	14	0	0
427	ES	Z8	VOLATILES/WATER/GCFID	BCHPD	7.340000	102.0000	.680	0	7	40
428	ES	Z8	VOLATILES/WATER/GCFID	DCPD	5.120000	102.0000	.740	0	7	40
429	ES	Z8	VOLATILES/WATER/GCFID	MIBK	5.240000	105.0000	.860	0	7	40
430	ES	ZZ9	VOLATILES/SOIL/GCFID	BCHPD	5.080000	102.0000	.856	0	7	40
431	ES	ZZ9	VOLATILES/SOIL/GCFID	DCPD	5.120000	102.0000	.898	0	7	40
432	ES	ZZ9	VOLATILES/SOIL/GCFID	MIBK	5.240000	105.0000	.898	0	7	40

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

APPENDIX B

Field/ Laboratory Interaction SOPs

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table of Contents
Appendix B

B.1 Sample Container and Cleanup

B.2 Sampling Guidance

B.3 Field Laboratory Interaction

B.4 Preservation and Holding Times Requirements

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.1

Sample Containers and Cleanup

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.1 LABORATORY CONTAINER CLEANING PROCEDURES

ESE intends to use commercially cleaned sample containers whenever possible (except as noted). Table B-1 summarizes the application of these cleaning procedures. Any containers prepared in-house (when necessary) will meet these or equivalent specifications. Sample-kit containers are stored in clean, dust-free areas segregated from the analytical laboratory and solvent/reagent storage areas. Audits of containers to document freedom from contaminants are performed by supplying the various blanks to routine analysis.

DI water is defined as ESE water that has been treated by passing it through a standard resin column and an activated carbon unit. The water contains no detectable (ESE's routine detection limits) heavy metals or inorganic compounds of analytical interest and is relatively free of organic compounds. The water is acceptable for the initial rinsing of laboratory glassware and field equipment. Ultra-pure water, used for equipment and field blanks, is defined as ESE water that has been additionally treated through a Milli-Q treatment system and contains no organic compounds of analytical interest above ESE's routine detection limits. Organic-free water, used for trip blanks, is prepared by purging American Society for Testing and Materials (ASTM) Type 2 water at 60 C for 24 hours with Grade 6 helium.

DI water other than ESE treated water may be used if it is of documented equivalent quality. Use of commercially "deionized" or "distilled" water is discouraged because it often contains phthalate esters.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table B-1. Sample Container Cleaning Procedures Within the Laboratory

Analysis/Parameter	Container Type	Matrix	Fraction Code	Cleaning Protocol*
Organic extractables include GC, HPLC, GC/MS, and Total Phenols Analyses	Glass jar with Teflon®-lined cap	Water	MS, EC, HB, UP, NP, LC, W, Z	A
	Glass jar with Teflon®-lined cap	Soil/ Sediment/ Tissue	SS	A
Organic purgeables including GC and GC/MS Analyses, TOX, Aldicarb	Glass septum vial with Teflon®-lined septum	Water	V, VP, ED, AL, XP	B
	Wide-mouth glass jar with Teflon®-lined cap	Soil/Tissue	SV	B
Metals	Linear polyethylene cubitainer with polyethylene cap	Water	N	C
	Glass jar with Teflon®-lined cap (or new plastic)	Soil/ Sediment/ Tissue	SS	A
Inorganics include total cyanide, alkalinity, acidity, residues, BOD, color, MBAS, COD, TOC, chloride, turbidity, sulfate, bromide, sulfide, fluoride, nutrients, and radionuclides	Linear polyethylene cubitainer with polyethylene cap	Water	C, B, S, H, R	D
	Glass jar with Teflon®-lined cap (or new plastic)	Soil/Tissue	SS	A

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table B-1. Sample Container Cleaning Procedures With the Laboratory (Continued, Page 2 of 2)

Analysis/Parameter	Container Type	Matrix	Fraction Code	Cleaning Protocol*
Oil and grease (O&G), odor	Glass jar with Teflon®-lined cap	Water	O,OD	A
Oil and grease (O&G)	Glass jar with Teflon®-lined cap	Soil/ Sediment	SS	A
Bacteriologicals	Plastic Whirlpak or equivalent	Water	M	E

Note: GC/MS = gas chromatography/mass spectrography.
GC/HPLC = gas chromatography/high performance liquid chromatography.
Glass = amber for all organic water analyses.
TOX = total organic halide.

*Cleaning Protocol A	B	C	D	E	Specifications
X	X	X			Wash with hot tap water using laboratory-grade, nonphosphate detergent.
X	X	X			Rinse 3 times with tap water.
X		X			Rinse with 1:1 nitric acid (reagent-grade nitric acid diluted with ASTM Type 1 deionized water).
X	X	X			Rinse 3 times with ASTM Type 1 deionized water.
X					Rinse with pesticide-grade methylene chloride using 20 mL per 64-oz bottle, 10 mL per 32- or 16-oz bottle, or 5 mL per 8- or 4-oz bottle.
X	X				Oven dry at 105° to 125°C for 1 hour.
		X			Invert and air dry in contaminant-free environment.
			X		No cleaning required; use new cubitainers (only).
				X	Use sterile, prepackaged plastic container or equivalent for subcontracted work.

Source: ESE, 1989.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

TABLE B-1. SUMMARY OF METHODS, CONTAINER TYPES, CLEANING PROCEDURES, VOLUME REQUIRED, HOLDING TIMES ETC.

	ARMY METHOD No.	REFERENCE METHOD No.	METHOD NAME	CONTAINER TYPE/SIZE	CLEANING REQUIRED	FRACTION@ DESIGNATION	ANALYTICAL VOLUMES	PRESERVATION REQUIREMENTS	HOLDING TIMES
GC/MS									
	LM18	8270	BNAs IN SOIL BY GC/MS	AMBER GLASS/0.5L	A	SS	50g	CHILL	7/40D
	UM18	625	BNAs IN WATER BY GC/MS	AMBER GLASS/1L	A	MS	1L	CHILL	7/40D
	LM19	8240	VOCs IN SOIL BY GC/MS	60 mL VIALS	B	SV	5g	CHILL	14D
	UM20	624	VOCs IN WATER BY GC/MS	60 mL VIALS	B	VP	5 mL	HCL, pH<2	14D
PEST. & PCBs									
	LH10	8080	OCPs IN SOIL BY GC-EC	AMBER GLASS/0.5L	A	SS		CHILL	7/40D
	UH13	608	OCPs IN WATER BY GC-EC	AMBER GLASS/1L	A	EC	1L	CHILL	7/40D
	LH16	8080	PCBs IN SOIL BY GC-EC	AMBER GLASS/0.5L	A	SS		CHILL	7/40D
	UH02	608	PCBs IN WATER BY GC-EC	AMBER GLASS/1L	A	EC	1L	CHILL	7/40D
EXPL.									
	LW12		EXPL.s IN SOIL BY HPLC	AMBER GLASS/0.5L	A	SS		CHILL	56/40D
	UW14		EXPL.s IN WATER BY HPLC	AMBER GLASS/1L	A	LC	1L	CHILL	56/40D
	UW19		PETN/NG IN WATER BY HPLC	AMBER GLASS/1L	A	LC	1L	CHILL	56/40D
METALS									
	JS11	6010	METALS IN SOIL BY ICAP	AMBER GLASS/0.5L	A	SS	10g	CHILL	6M
	SS10	200.7	METALS IN WATER BY ICAP	PLASTIC/1L	C	N	100mL	HNO3, pH<2	6M
	JB01	7471	HG IN SOIL BY CVAA	AMBER GLASS/0.5L	A	SS	10g	CHILL	28D
	SB01	245.1	HG IN WATER BY CVAA	PLASTIC/1L	C	N	250mL	HNO3, pH<2	28D
	JD15	7740	SE IN SOIL BY GFAA	AMBER GLASS/0.5L	A	SS	10g	CHILL	6M
	SD21	270.2	SE IN WATER BY GFAA	PLASTIC/1L	C	N	100mL	HNO3, pH<2	6M
	JD16	7911	V IN SOIL BY GFAA	AMBER GLASS/0.5L	A	SS	10g	CHILL	6M
	SD19	200.7	V IN WATER BY GFAA	PLASTIC/1L	C	N	100mL	HNO3, pH<2	6M
	JD17	7421	PB IN SOIL BY GFAA	AMBER GLASS/0.5L	A	SS	10g	CHILL	6M
	SD20	239.2	PB IN WATER BY GFAA	PLASTIC/1L	C	N	100mL	HNO3, pH<2	6M
	JD18	7761	AG IN SOIL BY GFAA	AMBER GLASS/0.5L	A	SS	10g	CHILL	6M
	SD23	272.2	AG IN WATER BY GFAA	PLASTIC/1L	C	N	100mL	HNO3, pH<2	6M
	JD19	7060	AS IN SOIL BY GFAA	AMBER GLASS/0.5L	A	SS	10g	CHILL	6M
	SD22	206.2	AS IN WATER BY GFAA	PLASTIC/1L	C	N	100mL	HNO3, pH<2	6M
ANIONS									
	KT05	300.0	SULFATE IN SOIL	AMBER GLASS/0.5L	A	SS	2g	CHILL	28D
	TT10	300.0	SULFATE IN WATER	PLASTIC/1L	D	C	10mL	CHILL	28D
	KF10	353.2	NO2+NO3 IN SOIL BY TECH.	AMBER GLASS/0.5L	A	SS	2g	CHILL	28D
	TF22	353.2	NO2+NO3 IN WATER BY TECH.	PLASTIC/1L	D	S	10mL	H2SO4, pH<2	28D
	KF14	365.1	TOTAL PHOSPHATE IN SOIL	AMBER GLASS/0.5L	A	SS	1g	CHILL	28D
	TF27	365.1	TOTAL PHOSPHATE IN WATER	PLASTIC/1L	D	S	75mL	H2SO4, pH<2	28D
		9071/9073	OIL AND GREASE/TRPH IN SOIL	AMBER GLASS/0.5L	A	SS	15g	CHILL	28D
		413.2	OIL AND GREASE/TRPH IN WATER	AMBER GLASS/1L	A	O	1L	H2SO4, pH<2	28D

@ ALL METHODS WITH A SS OR A N FRACTION DESIGNATION WILL BE IN 1 OR 2 ACTUAL CONTAINERS

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

TABLE B-1. (continued) SAMPLE CLEANING PROCEEDURES WITH THE LABORATORY

CLEAN'NG PROTOCOL					SPECIFICATION
A	B	C	D	E	
X	X	X			WASH WITHHOT TAP WATER USING LABORATORY-GRADE, NON-PHOSPHATE DETERGENT
X	X	X			RINSE THREE TIMES WITH TAP WATER
X		X			RINSE WITH 1:1 NITRIC ACID (REAGENT-GRADE NITRIC ACID DILUTED WITH ASTM TYPE I DEIONIZED WATER)
X	X	X			RINSE THREE TIMES WITH ASTM TYPE I DEIONIZED WATER.
X					RINSE WITH PESTICIDE-GRADE HEXANE USING 20 mL PER 64-OZ BOTTLE, 10 mL PER 32- OR 16-OZ. BOTTLE, OR 5 mL PER 8- OR 4-OZ. BOTTLE.
X	X				OVEN DRY AT 105 DEG. TO 125 DEG. C FOR ONE HOUR.
		X			INVERT AND AIR DRY IN CONTAMINANT-FREE ENVIRONMENT.
			X		CLEANING PERFORMED BY SUPPLIER ACCORDING TO U.S. EPA PROTOCOL
				X	USE STERILE, PREPACKAGED PLASTIC CONTAINER OF EQUIVALENT

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.2

Sampling Guidance

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.2 SAMPLING GUIDANCE

Appendix G in the January 1990 USATHAMA QA Plan presents standard operating procedures for field operations. This Master QA plan is for laboratory operations in support of different field operations contracts. Standard operating procedures required by the USATHAMA QA plan and applicability to this Master Laboratory QA plan are as follows:

Training	NRQ in this Manual
Sample Management	NRQ -Case by case input
Numbering and Labeling	NRQ -Case by case input for incorporating ESE prepared labels and project numbering
Sample Tracking	NRQ -provide feedback to project manager of samples received and ID's
Sample Containers	NRQ -case by case input
Sample Preservation and Storage	NRQ -use Appendix B.4 for guidance
Holding Times	NRQ -use Appendix B.4 for guidance
Shipping	NRQ -case by case input of carrier delivering to ESE
Decontamination	NRQ in this Manual
Sample Collection Procedures	NRQ in this Manual
Corrective Action	NRQ in this Manual
Records Management	NRQ in this Manual
Chemical and Sample Disposal	NRQ in this Manual
Reporting field data	NRQ in this Manual
Field Analyses	Not required at this time.

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.3

Field Laboratory Interaction

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.3 PREFIELD ACTIVITY

Corporate policy dictates that prefield briefing meetings/conference calls be held prior to any field investigations involving the collection of laboratory samples. These meetings are intended to assure that all necessary departments are aware of the field activity and can plan accordingly.

Within corporate headquarters (Gainesville), the Project Manager and/or Field Team Leader must schedule a meeting with at least the Laboratory Coordinator and Project QA Supervisor. Regional office personnel must initiate a conference call with the appropriate laboratory coordinator (regional laboratory or Gainesville) and Project QA Supervisor.

A Field Trip Plan Approval Form (see Figure 4-2) is filled out, and approval is documented by the signatures of the personnel on the form. For regional offices, the date of the conference call is placed on the signature line. These items should be discussed at the pre-field meeting, and understood by every member of the field team. Phone numbers and points of contacts should be established and available. Project specific details (field QC requirements, chain-of-custody requirements, schedules, holdingtimes, etc.) should be discussed.

FIELD AND LABORATORY INTERACTION

Throghout the field activities, in which samples are collected, daily communication between the field-team leader and the laboratory coordinator is necessary. Items that need to be discussed include, but are not limited to:

1. Samples collected and shipped previous day,
2. Samples that are projected to be collected that day,
3. Documentation (logsheet completed correctly?), a description of ESE label and logsheet are attached,
4. Preservation (performed correctly?),
5. Beakage (packing of samples).

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

DO NOT DUPLICATE

Project No. _____

FIELD TRIP PLAN APPROVAL FORM

Project Name: _____

Field Trip Site: _____

Field Trip Responsibility (Subproj. or Proj. Mngr.) _____

Field Team Leader: _____

Laboratory Coordinator: _____

Field Team Members:

_____ _____

_____ _____

_____ _____

_____ _____

SCHEDULING INFORMATION:

Field Trip Briefing Mtg _____ (Date) _____ (Time)

Departure ESE _____ (Date) _____ (Time)

Site Arrival _____ (Date) _____ (Time)

Site Departure _____ (Date) _____ (Time)

Arrive ESE _____ (Date) _____ (Time)

PLANNING INFORMATION:

The following information must be attached (check to indicate):

_____ Sampling and Shipping Schedule; Lab/Field Contacts Established

_____ Sampling Location Layout

_____ Samples to be Collected and Fraction

_____ List of all Parameters to be Measured On-Site

_____ List of Field Equipment Requested

APPROVALS:

Laboratory Coordinator (Date) Proj. or Subproj. Manager (Date)

Field Team Leader (Date) QA Manager (Date)

REMARKS: _____

cc: Project Director / Project Manager

Signature _____ Date _____

Figure 4-2
FIELD TRIP APPROVAL FORM

SOURCE: HUNTER/ESE, 1989

HUNTER/ESE

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Should problems and delays arise in the field, this information can be passed along to laboratory personnel, and plans can be adjusted as necessary.

[illegible] ON CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

ESE FIELD LOGSHEET AND LABEL - A Description

Refer to the attached example.

1. Date of generation of the field group and logsheet.

2. FIELD GROUP - This is an alphanumeric label, assigned by the laboratory coordinator, that identified this particular sample effort. The name must not be altered once the field group has been set-up.

3. PROJECT NUMBER - The first seven digits represent a unique numeric identifier for the project, the four digits suffix identifies a discrete analytical task performed as part of that project.

4. FROJECT NAME - Client's name and/or project descriptor.

5. LAB COORD. - The laboratory Coordinator (LC) responsible for this field group.

6. ESE # - The field group sample sequence number, an integer that is combined with the field group name (i.e., FTBLS1*199) to serve as an unique identifier for that sample. The number should not be altered once set-up.

7. SITE/STA - The site or station identification number. This alphanumeric label is used to identify the physical location or sampling point (well, test bore, sediment, etc.) where the sample was obtained. This ID may be altered to reflect changes in the field and should be limited to 9 characters.

8. HAZ? - The hazard code which alerts field personnel if special precautions should be taken when handling and processing the sample. The key to these codes are printed on the logsheet itself in the section labeled "NOTE".

9. FRACTIONS - These codes inform sampling personnel how much of the matrix is required, its storage requirements, type of container and method of preservation. Each fraction collected and shipped should be circle by sample collection personnel. See "Key to Fraction Codes" for more information.

10. DATE - Date of collection.

11. TIME - Time of collection.

12. PARAMETER LIST - an alphanumerically labeled list of the analysis and procedures that are to be performed on the sample as requested by the LC.

13. Record FIELD DATA in this area, including such things as field pH and conductivity, or Army parameters, as appropriate.

13A. Record the Sequence Number (ESE # [6.]) of the sample that was replicated. This is very important in the lab's review of the data and subsequent submittal to the Army's database.

File: [illegible]

[illegible] CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

ESE FIELD LOGSHEET AND LABEL - A Description (Continued, Page 2 of 2)

14. These three blank lines are for signatures of individuals who are handling the samples to document the chain of custody. Sampler signs line 1, left side, and also initials label. When samples are relinquished to Fed. Ex. (or other courier) record the airbill number in the "REC'D BY" space.

15. SAMPLER: NEXT SHIPMENT - Record date of next shipment of samples in this field group (if any).

16. NUMBER SAMPLES - Record number of samples that will be sent in the next shipment (if any).

Items 17 through 20 will be recorded by the Sample Custodian (at the laboratory).

17. CUSTODY SEALS INTACT - Indicates whether or not custody tapes are intact (if any) when received at the laboratory.

18. SAMPLES ICED - Indicates whether or not the samples were received at the laboratory on ice.

19. PRESERVATIONS AUDITED? - Indicates whether or not the preservations were performed and/or performed correctly.

20. PROBLEMS? - Problems with the sample shipment, receipt, packing, and/or preservations (if any) would be noted here.

File [illegible]

[illegible] CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

Hunter/ESE, Inc. 01-26-90 (1) *** FIELD LOGSHEET *** FIELD GROUP: FTBLW1 (2)
PROJECT NUMBER 3904067 0201 (3) PROJECT NAME: CE - FT. BLISS (4) LAB COORD. JACKIE HARGROVE (5)

(6) SE #	(7) SITE/STA	(8) HAZ?	(9) FRACTIONS (CIRCLE)	(10) DATE	(11) TIME	(12) PARAMETER LIST	pH	(13) Cond.	Water T.
*1	S39-SW-1		EC EC HB HB MS MS N NP NP O O O VP VP VP VP			FTBLSW			
*2	S39-SW-2		EC EC HB HB MS MS N NP NP O O O VP VP VP VP			FTBLSW			
*3	S39-SW-3		EC EC HB HB MS MS N NP NP O O O VP VP VP VP			FTBLSW			
*4	S39-SW-4		EC EC HB HB MS MS N NP NP O O O VP VP VP VP			FTBLSW			
*5	S39-SW-5		EC EC HB HB MS MS N NP NP O O O VP VP VP VP			FTBLSW			
*6	S39-SW-6		EC EC HB HB MS MS N NP NP O O O VP VP VP VP			FTBLSW			
*7	S39-SW-DP# (13A)		EC EC HB HB MS MS N NP NP O O O VP VP VP VP			FTBLSW			

NOTE -CHANGE OR ENTER SITE ID AS NECESSARY; UP TO 9 ALPHANUMERIC CHARACTERS MAY BE USED
-CIRCLE FRACTIONS COLLECTED. ENTER DATE,TIME,FIELD DATA (IF REQUIRED), HAZARD CODE AND NOTES
-HAZARD CODES: I-IGNITABLE C-CORROSIVE R-REACTIVE T-TOXIC WASTE H-OTHER ACUTE HAZARD; IDENTIFY SPECIFICS IF KNOWN
-PLEASE RETURN COMPLETED LOGSHEETS WITH SAMPLES TO Hunter/ESE, Inc.

ELINQUISHED BY: (NAME/ORGANIZATION/DATE/TIME)	VIA:	REC'D BY (NAME/ORGANIZATION/DATE/TIME)
1 (14)		
2		
3		

SAMPLER: MORE SAMPLES TO BE SHIPPED? (15) IF YES, ANTICIPATED # (16) TO SHIP ON / /
SAMPLE CUSTODIAN: Custody Seals Intact? (17) Samples Iced? (18) Preservations Audited? (19) Problems? (20)

LABEL:

(3) PRJ# 3904067 0201 S39-SW-1 (7)
CE - FT. BLISS (4)
(2) FTBLW1*1-EC (9)
SAMPLER (14) DATE (6) (10) TIME (11)
(12) COND (13)

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTION NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

B.4

Preservation and Holding Time Requirements

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table H-1. Containers, Preservation, Storage, and Holding Times[a]

Parameter	Container[b] Water	Container[b] Soil	Preservative[c,d] Water	Preservative[c,d] Soil	Maximum Holding Time for all Matrices[e]
INORGANIC TESTS					
Acidity	P	G	Cool, 4°C	Cool, 4°C	14 days
Alkalinity	P	G	Cool, 4°C	Cool, 4°C	14 days
Amnonia	P	G	Cool, 4°C H_2SO_4 to pH <2	Cool, 4°C	28 days
Asbestos	P	G	Cool, 4°C	Cool, 4°C	48 hours[f]
Bicarbonate	P	G	None Required	None Required	Analyze Immediately
Biochemical Oxygen Demand (BOD) and Carbonaceous BOD	P	G	Cool, 4°C	Cool, 4°C	48 hours
Bromide	P	G	None Required	None Required	28 days
Carbonate	P	G	None Required	None Required	Analyze Immediately
Chemical Oxygen Demand (COD)	P	G	Cool, 4°C H_2SO_4 to pH <2	Cool, 4°C	28 days
Chloride	P	G	None Required	None Required	28 days
Chlorine, Total Residual	P	N/A	None Required	N/A	Analyze Immediately
Color	P	N/A	Cool, 4°C	N/A	48 hours

INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table H-1. (Cont'd.)

Parameter	Container[b] Water	Container[b] Soil	Preservative[c,d] Water	Preservative[c,d] Soil	Maximum Holding Time for all Matrices[e]
Cyanide, Total and Amenable to Chlorination	P	G	Cool, 4°C NaOH to pH >12 0.6 g Ascorbic Acid[g]	Cool, 4°C	14 days [h]
Dissolved Oxygen					
Probe	G Bottle and Top	N/A	None Required	N/A	Analyze Immediately
Winkler	G Bottle and Top	N/A	Fix On Site Store in Dark	N/A	8 hours
Fluoride	P	G	None Required	None Required	28 days
Hardness	P	N/A	HNO_3 or H_2SO_4 to pH<2	N/A	6 months
Hydrazine	P	G	If not analyzed immediately, collect under acid. Add 90 ml of sample to 10 ml HCl.	Cool, 4°C	7 days
Iodide	P	G	Cool, 4°C	Cool, 4°C	24 hours
Iodine	P	G	None Required	None Required	Analyze Immediately
Kjeldahl and Organic Nitrogen	P	G	Cool, 4°C H_2SO_4 to pH <2	Cool, 4°C	28 days

NO INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table H-1. (Cont'd.)

Parameter	Container[b] Water	Container[b] Soil	Preservative[c,d] Water	Preservative[c,d] Soil	Maximum Holding Time for all Matrices[e]
Metals[i]					
Chromium VI	P	G	Cool, 4°C	Cool, 4°C	24 hours
Mercury	P	G	HNO_3 to pH <2	Cool, 4°C	28 days
Others	P	G	HNO_3 to pH <2	Cool, 4°C	6 months
Nitrate	P	G	Cool, 4°C	Cool, 4°C	48 hours
Nitrate plus Nitrite	P	G	Cool, 4°C H_2SO_4 to pH <2	Cool, 4°C	28 days
Nitrite	P	G	Cool, 4°C	Cool, 4°C	48 hours
Oil and Grease	G	G	Cool, 4°C H_2SO_4 to pH <2	Cool, 4°C	28 days
Orthophosphate	P	G	Filter Immediately Cool, 4°C	Cool, 4°C	48 hours
pH	P	G	None Required	None Required	Analyze Immediately
Phenols	G	G	Cool, 4°C H_2SO_4 to pH <2	Cool, 4°C	28 days
Phosphorous, Elemental	G	G	Cool, 4°C	Cool, 4°C	48 hours
Phosphorous, Total	P,G	G	Cool, 4°C H_2SO_4 to pH <2	Cool, 4°C	28 days
Silica, Dissolved or Total	P	G	Cool, 4°C	Cool, 4°C	28 days

ANY INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table H-1. (Cont'd.)

Parameter	Container[b] Water	Container[b] Soil	Preservative[c,d] Water	Preservative[c,d] Soil	Maximum Holding Time for all Matrices[e]
Residue					
Filterable	P	N/A	Cool, 4°C	N/A	7 days
Settleable	P	N/A	Cool, 4°C	N/A	48 hours
Nonfilterable (TSS)	P	N/A	Cool, 4°C	N/A	7 days
Total	P	N/A	Cool, 4°C	N/A	7 days
Volatile	P	N/A	Cool, 4°C	N/A	7 days
Specific Conductance	P	G	Cool, 4°C	Cool, 4°C	28 days
Sulfate	P	G	Cool, 4°C	Cool, 4°C	28 days
Sulfide	P	G	Cool, 4°C Add Zinc Acetate plus NaOH to pH >9	Cool, 4°C	7 days
Sulfite	P	G	None Required	None Required	Analyze Immediately
Surfactants	P	G	Cool, 4°C	Cool, 4°C	48 hours
Temperature	P	G	None Required	None Required	Analyze Immediately
Turbidity	P	N/A	Cool, 4°C	N/A	48 hours
ORGANIC TESTS[j]					
Acrolein and Acrylonitrile	S	S	Cool, 4°C 0.008% $Na_2S_2O_3$[g] Adjust pH to 4-5[k]	Cool, 4°C	14 days[k]

NOTICE: INFORMATION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE

THIS DOCUMENT DO NOT DUPLICATE

Table H-1. (Cont'd.)

Parameter	Container[b] Water	Container[b] Soil	Preservative[c,d] Water	Preservative[c,d] Soil	Maximum Holding Time for all Matrices[e]
Benzidines[1]	G	G	Cool, 4°C[m] 0.008% $Na_2S_2O_3$[g] pH 2-7	Cool, 4°C	7 days until extraction[n]
Chlorinated Hydrocarbons[1]	G	G	Cool, 4°C	Cool, 4°C	7 days until extraction 40 days after extraction
Haloethers[1]	G	G	Cool, 4°C 0.008% $Na_2S_2O_3$[g]	Cool, 4°C	7 days until extraction 40 days after extraction
Nitroaromatics and Isophorone[1]	G	G	Cool, 4°C Store in Dark	Cool, 4°C Store in Dark	7 days until extraction 40 days after extraction
Nitrosamines[1,o]	G	G	Cool, 4°C Store in Dark 0.008% $Na_2S_2O_3$[g]	Cool, 4°C Store in Dark	7 days until extraction 40 days after extraction
PCBs	G	G	Cool, 4°C	Cool, 4°C	7 days until extraction 40 days after extraction
Pesticides[1]	G	G	Cool, 4°C pH 5-9[p]	Cool, 4°C	7 days until extraction 40 days after extraction
Phenols[1]	G	G	Cool, 4°C 0.008% $Na_2S_2O_3$[g]	Cool, 4°C	7 days until extraction 40 days after extraction
Phthalate Esters[1]	G	G	Cool, 4°C	Cool, 4°C	7 days until extraction 40 days after extraction

THE INSTRUCTIONS NOTED IN THE

THIS IS A CONTROLLED DOCUMENT
DO NOT DUPLICATE

Table H-1. (Cont'd.)

Parameter	Container[b] Water	Container[b] Soil	Preservative[c,d] Water	Preservative[c,d] Soil	Maximum Holding Time for all Matrices[e]
Polynuclear Aromatic Hydrocarbons[l]	G	G	Cool, 4°C 0.008% $Na_2S_2O_3$[g] Store in Dark	Cool, 4°C Store in Dark	7 days until extraction 40 days after extraction
Purgeable Aromatic Hydrocarbons	S	S	Cool, 4°C 0.008% $Na_2S_2O_3$[g] HCl to pH<2[q]	Cool, 4°C	14 days[q]
Purgeable Halocarbons	S	S	Cool, 4°C 0.008% $Na_2S_2O_3$[g]	Cool, 4°C	14 days
TCDD[l]	G	G	Cool, 4°C 0.008% Na_2SO_3[g]	Cool, 4°C	7 days until extraction 40 days after extraction
Total Organic Carbon	G	G	Cool, 4°C HCl or H_2SO_4 to pH <2	Cool, 4°C	28 days
Total Organic Halogen	G	G	Cool, 4°C 1 ml of 0.1 M sodium sulfite	Cool, 4°C	7 days

Analytes not listed should be preserved at 4°C and held not longer than 7 days.

[a]Preservatives and holding times are from Federal Register, Vol. 49, No. 209, Friday, October 26, 1984, Page 43260 and Characterization of Hazardous Waste Sites: A Methods Manual -- Volume II, Sampling Methods, Second Edition, EPA-600/4-84-076. Container requirements are consistent with these references.

[b]P = Polyethylene
G = Amber Glass with Teflon-lined cap
S = Glass Vial with Teflon-lined septum cap

DISTRIBUTION CONTAINED ON THIS PAGE IS SUBJECT TO THE RESTRICTIONS NOTED IN THE