

10135

APPENDIX H
SAMPLE ANALYSES

AR300844

GROUNDWATER SAMPLE ANALYSIS

AR300845

SUMMARY OF REPORTABLE CONCENTRATIONS OF ORGANIC COMPOUNDS IN GROUND WATER (UG/L)

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
CHCL3	CHLOROFORM	6	7	2	9
VC	VINYL CHLORIDE	1	170	170	170
TDCE	TRANS-1,2-DICHLOROETHENE	6	56	4	250
TCE	TRICHLOROETHENE	4	32	7	91
PENT	4-METHYL-2-PENTANONE	1	60	60	60
BENZENE	BENZENE	2	3	2	4
CLBENZ	CHLOROBENZENE	4	134	20	250
TOLUENE	TOLUENE (METHYL BENZENE)	4	29	4	60
XYLENE	TOTAL XYLENES	4	80	22	205
ETHYL	ETHYLBENZENE	4	50	3	150
CD	CARBON DISULFIDE	1	3	3	3
ISO	ISOPHORONE	1	38	38	38
NAPH	NAPHTHALENE	2	8	6	9
PHEN	PHENANTHRENE	1	9	9	9
B3P	RUPLYBENZYL PHTHALATE	1	65	65	65
BP	RIS (2-ETHYLHEXYL) PHTHALATE	12	58	5	280
DIBUT	DI-N-BUTYL PHTHALATE	10	5	3	7

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SUMMARY OF REPORTABLE CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUND WATER (UG/L)

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
AL	TOTAL ALUMINUM	16	16730.8	687.0	79400.0
SAL	SOLUBLE ALUMINUM	15	353.1	112.0	1906.0
AR	TOTAL ARSENIC	4	14.3	10.0	22.0
SAP	SOLUBLE ARSENIC	0	-	-	-
BA	TOTAL BARIUM	10	457.2	144.0	1220.0
SBA	SOLUBLE BARIUM	6	293.7	102.0	1070.0
BE	TOTAL BERYLLIUM	5	24.8	6.9	72.0
SBE	SOLUBLE BERYLLIUM	1	6.0	6.0	6.0
CAD	TOTAL CADMIUM	14	16.7	5.8	37.0
SCAD	SOLUBLE CADMIUM	11	13.8	5.0	64.0
CA	TOTAL CALCIUM	16	117173.7	8860.0	501000.0
SCA	SOLUBLE CALCIUM	16	117273.0	3280.0	563000.0
CO	TOTAL COBALT	11	248.1	33.0	979.0
SCO	SOLUBLE COBALT	9	190.6	29.0	1060.0
CU	TOTAL COPPER	13	115.8	21.0	336.0
SCU	SOLUBLE COPPER	4	28.0	11.0	43.0
CR	TOTAL CHROMIUM	16	108.7	12.0	417.0
SCR	SOLUBLE CHROMIUM	12	24.7	10.0	49.0
FE	TOTAL IRON	16	88027.4	698.0	440000.0
SFE	SOLUBLE IRON	15	8826.9	57.0	122000.0
PB	TOTAL LEAD	10	61.1	8.0	260.0
SPB	SOLUBLE LEAD	4	8.8	6.0	11.0
MG	TOTAL MAGNESIUM	14	27332.4	1052.0	75020.0
SMG	SOLUBLE MAGNESIUM	14	27238.6	1270.0	77100.0
MN	TOTAL MANGANESE	15	2017.7	85.0	7908.0
SMN	SOLUBLE MANGANESE	13	1990.6	68.0	7220.0

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SUMMARY OF REPORTABLE CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUND WATER (UG/L)

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
HG	TOTAL MERCURY	11	0.5	0.2	1.2
SHG	SOLUBLE MERCURY	14	0.9	0.2	2.4
NI	TOTAL NICKEL	15	299.2	26.0	1430.0
SNI	SOLUBLE NICKEL	12	238.5	22.0	1530.0
AG	TOTAL SILVER	6	13.3	10.0	18.0
SAG	SOLUBLE SILVER	6	15.2	10.0	24.0
NA	TOTAL SODIUM	16	96957.5	7220.0	438000.0
SNA	SOLUBLE SODIUM	16	92552.5	7210.0	380000.0
VA	TOTAL VANADIUM	10	185.4	25.0	496.0
SVA	SOLUBLE VANADIUM	4	34.5	27.0	45.0
ZN	TOTAL ZINC	16	828.6	30.0	3780.0
SZN	SOLUBLE ZINC	13	586.9	10.0	4067.0
PH	PH	16	6.9	6.0	9.0
TSS	TOTAL SUSPENDED SOLIDS	10	1377.3	30.0	8720.0
COND	SPECIFIC CONDUCTANCE	16	1530.6	100.0	10000.0
TEMP	TEMPERATURE (C)	16	19.4	15.0	23.0

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CONCENTRATIONS OF ORGANIC COMPOUNDS IN GROUND WATER (UG/L)

SAMPLE NUMBER	CHLOROFORM	VINYL CHLORIDE	TRANS 1,2 DICHLORO ETHENE	TRICHLORO ETHENE	4-METHYL 2-PENTANONE
01W-024	-	-	-	-	-
02W-043	-	170	250	7	-
04W-108	4	-	-	-	-
05W-111	-	-	-	-	-
06P-027	-	-	7	-	50
06W-113	-	-	-	-	-
08W-080	2	-	7	13	-
09P-030	-	-	-	-	-
10P-026	-	-	4	-	-
10W-073	-	-	35	91	-
11W-026	-	-	-	-	-
11W-101	9	-	-	15	-
11W-145	7	-	-	-	-
12W-043	3	-	31	-	-
12W-065	9	-	-	-	-
13W-032	-	-	-	-	-

SAMPLE NUMBER	BENZENE	CHLORO BENZENE	TOLUENE (METHYL BENZENE)	TOTAL XYLENES	ETHYL BENZENE	CARBON DISULFIDE
01W-024	-	230	-	-	-	-
02W-043	2	36	-	-	-	-
04W-108	-	-	-	-	-	-
05W-111	-	-	4	22	3	-
06P-027	-	20	60	60	42	-
06W-113	-	-	-	-	-	-
08W-080	-	-	-	-	-	-
09P-030	-	-	-	-	-	-
10P-026	-	-	-	-	-	-
10W-073	-	-	-	-	-	-
11W-026	-	250	33	205	150	3
11W-101	4	-	19	34	6	-
11W-145	-	-	-	-	-	-
12W-043	-	-	-	-	-	-
12W-065	-	-	-	-	-	-
13W-032	-	-	-	-	-	-

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CONCENTRATIONS OF ORGANIC COMPOUNDS IN GROUND WATER (UG/L)

SAMPLE NUMBER	ISOPHORONE	NAPHTHALENE	PHENANTHRENE	BUTYLBENZYL PHTHALATE
01W-024	-	-	-	-
02W-043	-	-	-	-
04W-108	-	-	-	-
05W-111	-	-	-	-
06W-027	33	-	9	-
06W-113	-	-	-	-
03W-030	-	-	-	-
09W-030	-	-	-	-
10W-026	-	-	-	-
10W-073	-	-	-	-
11W-026	-	6	-	65
11W-101	-	9	-	-
11W-145	-	-	-	-
12W-043	-	-	-	-
12W-065	-	-	-	-
13W-032	-	-	-	-

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	DI-N-BUTYL PHTHALATE
01W-024	58	5
02W-043	6	7
04W-108	230	5
05W-111	10	-
06W-027	-	4
06W-113	19	-
03W-080	9	3
09W-030	5	4
10W-026	6	-
10W-073	-	-
11W-026	280	7
11W-101	14	3
11W-145	53	3
12W-043	-	6
12W-065	6	-
13W-032	-	-

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CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUND WATER (UG/L)

SAMPLE NUMBER	TOTAL ALUMINUM	SOLUBLE ALUMINUM	TOTAL ARSENIC	SOLUBLE ARSENIC	TOTAL BARIUM	SOLUBLE BARIUM
01W-024	3,430	444	-	-	190	124
02W-048	1,540	173	-	-	-	-
04W-108	3,320	231	-	-	-	-
05W-111	637	139	-	-	-	-
06P-027	26,090	-	10	-	288	-
06W-113	1,370	215	-	-	176	-
08W-080	1,510	243	-	-	203	166
09P-030	79,400	221	11	-	652	-
10P-026	29,700	614	-	-	402	-
10W-073	3,950	112	-	-	-	-
11W-026	6,115	334	-	-	816	129

SAMPLE NUMBER	TOTAL BERYLLIUM	SOLUBLE BERYLLIUM	TOTAL CADMIUM	SOLUBLE CADMIUM	TOTAL CALCIUM	SOLUBLE CALCIUM
01W-024	-	-	12.0	10.0	444,000	487,000
02W-048	-	-	31.0	54.0	70,200	34,600
04W-108	-	-	-	5.0	3,860	8,860
05W-111	-	-	-	-	22,500	20,300
06P-027	72.0	-	20.0	6.0	142,000	147,000
06W-113	-	-	6.0	-	36,200	4,008
08W-080	6.9	6	14.0	12.0	117,000	115,000
09P-030	22.0	-	37.0	7.0	10,400	3,280
10P-026	12.0	-	19.2	6.0	114,000	103,000
10W-073	-	-	5.3	5.0	26,300	23,600
11W-026	-	-	8.0	9.3	501,000	563,000

SAMPLE NUMBER	TOTAL COBALT	SOLUBLE COBALT	TOTAL COPPER	SOLUBLE COPPER	TOTAL CHROMIUM	SOLUBLE CHROMIUM
01W-024	735	-	96	17	59	45
02W-048	71	33	163	41	32	23
04W-108	-	-	41	-	21	26
05W-111	-	32	-	-	12	11
06P-027	163	94	236	-	277	22
06W-113	-	-	30	-	26	-
08W-080	979	1,060	63	43	27	20
09P-030	145	29	253	-	313	-
10P-026	296	268	92	-	124	18
10W-073	41	36	22	-	27	-
11W-026	-	-	46	11	68	49

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CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUND WATER (UG/L)

SAMPLE NUMBER	TOTAL IRON	SOLUBLE IRON	TOTAL LEAD	SOLUBLE LEAD	TOTAL MAGNESIUM	SOLUBLE MAGNESIUM
01W-024	44,900	239	60	7	68,200	72,600
02W-048	7,330	299	3	-	51,300	53,300
04W-108	7,370	301	3	-	1,760	1,650
05W-111	1,990	72	-	-	1,052	1,270
06P-027	136,000	3,308	260	-	24,600	23,300
06W-118	9,810	131	-	-	-	-
08W-080	5,050	74	-	-	34,080	36,070
09P-030	440,000	-	35	-	11,300	2,910
10P-026	125,000	302	16	11	18,600	16,900
10W-073	10,600	30	13	6	2,240	2,160
11W-026	27,600	244	65	-	67,100	73,100

SAMPLE NUMBER	TOTAL MANGANESE	SOLUBLE MANGANESE	TOTAL MERCURY	SOLUBLE MERCURY	TOTAL NICKEL	SOLUBLE NICKEL
01W-024	2,045	1,560	1.20	0.70	717	23
02W-048	5,230	5,660	0.31	1.20	144	142
04W-108	425	396	-	1.10	30	22
05W-111	305	270	-	0.60	30	25
06P-027	7,903	7,220	0.78	0.40	470	221
06W-118	96	-	-	-	26	-
08W-080	3,055	3,260	-	2.30	1,430	1,530
09P-030	2,630	681	0.35	2.40	421	65
10P-026	2,740	2,470	0.20	0.20	740	630
10W-073	290	252	0.31	0.40	63	37
11W-026	723	621	0.39	0.90	31	24

SAMPLE NUMBER	TOTAL SILVER	SOLUBLE SILVER	TOTAL SODIUM	SOLUBLE SODIUM	TOTAL VANADIUM	SOLUBLE VANADIUM
01W-024	17	22	121,000	113,000	49	27
02W-048	-	12	143,000	131,000	-	-
04W-108	-	-	15,800	16,400	-	-
05W-111	-	-	27,300	26,900	-	-
06P-027	12	11	13,100	13,800	278	-
06W-118	-	10	27,600	29,030	25	-
08W-080	10	-	103,000	106,000	-	-
09P-030	-	-	7,220	7,210	496	-
10P-026	10	-	16,900	17,500	161	-
10W-073	-	-	75,500	74,500	69	45
11W-026	13	24	108,000	105,000	60	28

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CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUND WATER (UG/L)

SAMPLE NUMBER	TOTAL ZINC	SOLUBLE ZINC	PH	TOTAL SUSPENDED SOLIDS	SPECIFIC CONDUCTANCE	TEMPERATURE (C)
01W-024	3,390	10	7.0	-	2,300	17.0
02W-048	2,110	2,160	6.0	-	1,200	17.0
04W-108	90	30	6.0	124	150	19.0
05W-111	40	21	6.5	30	230	19.0
06P-027	769	122	7.0	3,350	1,100	22.0
06W-118	37	-	7.0	33	209	23.0
08W-030	3,730	4,067	7.0	169	1,150	20.0
09P-030	313	76	6.5	-	100	17.0
10P-026	1,030	365	6.0	-	800	15.0
10W-073	99	43	7.0	244	700	19.0
11W-026	133	16	7.0	-	2,550	21.0

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CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUND WATER (UG/L)

SAMPLE NUMBER	TOTAL ALUMINIUM	SOLUBLE ALUMINIUM	TOTAL ARSENIC	SOLUBLE ARSENIC	TOTAL BARIUM	SOLUBLE BARIUM
11W-101	1,040	131	-	-	-	-
11W-145	3,630	1,906	-	-	-	-
12W-043	75,040	141	22	-	144	171
12W-065	1,120	174	-	-	431	102
13W-032	24,700	192	14	-	1,220	153

SAMPLE NUMBER	TOTAL BERYLLIUM	SOLUBLE BERYLLIUM	TOTAL CADMIUM	SOLUBLE CADMIUM	TOTAL CALCIUM	SOLUBLE CALCIUM
11W-101	-	-	6.6	6.0	11,900	5,820
11W-145	-	-	5.1	-	80,400	74,800
12W-043	11.0	-	34.0	-	99,700	42,300
12W-065	-	-	7.7	-	39,400	33,800
13W-032	-	-	27.0	21.0	151,000	155,000

SAMPLE NUMBER	TOTAL COBALT	SOLUBLE COBALT	TOTAL COPPER	SOLUBLE COPPER	TOTAL CHROMIUM	SOLUBLE CHROMIUM
11W-101	33	-	-	-	14	10
11W-145	-	-	-	-	37	31
12W-043	63	-	336	-	417	13
12W-065	73	66	21	-	17	-
13W-032	70	47	107	-	268	23

SAMPLE NUMBER	TOTAL IRON	SOLUBLE IRON	TOTAL LEAD	SOLUBLE LEAD	TOTAL MAGNESIUM	SOLUBLE MAGNESIUM
11W-101	2,200	57	-	-	2,302	2,340
11W-145	693	70	-	-	-	-
12W-043	334,000	96	73	-	15,800	9,600
12W-065	890	81	-	-	8,300	8,540
13W-032	252,000	122,000	23	11	75,020	77,100

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CONCENTRATIONS OF INORGANIC COMPOUNDS IN GROUND WATER (UG/L)

SAMPLE NUMBER	TOTAL MANGANESE	SOLUBLE MANGANESE	TOTAL MERCURY	SOLUBLE MERCURY	TOTAL NICKEL	SOLUBLE NICKEL
11W-101	25	-	-	0.90	49	-
11W-145	-	-	0.39	0.50	-	-
12W-043	971	63	0.55	0.50	114	-
12W-065	2,130	2,070	0.29	0.30	141	120
13W-032	1,703	1,350	0.43	-	32	23

SAMPLE NUMBER	TOTAL SILVER	SOLUBLE SILVER	TOTAL SODIUM	SOLUBLE SODIUM	TOTAL VANADIUM	SOLUBLE VANADIUM
11W-101	-	-	90,100	83,300	-	-
11W-145	-	-	79,800	30,700	41	38
12W-043	-	-	163,000	156,000	465	-
12W-065	-	-	117,000	133,000	-	-
13W-032	13	12	433,000	380,000	210	-

SAMPLE NUMBER	TOTAL ZINC	SOLUBLE ZINC	PH	TOTAL SUSPENDED SOLIDS	SPECIFIC CONDUCTANCE	TEMPERATURE (C)
11W-101	118	-	8.5	74	650	22.5
11W-145	30	-	9.0	34	1,700	21.5
12W-043	424	14	8.5	8,720	950	20.0
12W-065	152	131	6.5	-	700	15.0
13W-032	183	25	7.0	945	10,000	22.0

AR300855

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR ALL SOIL SAMPLES--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
BA	TOTAL BARIUM	65	362.3	12.0	6370.0
BE	TOTAL BERYLLIUM	55	2.7	0.3	81.0
CAD	TOTAL CADMIUM	24	8.5	2.1	89.0
CA	TOTAL CALCIUM	67	18109.8	76.0	221000.0
CO	TOTAL COBALT	64	14.8	2.3	59.0
CU	TOTAL COPPER	71	183.9	6.1	1790.0
CR	TOTAL CHROMIUM	72	169.2	3.8	1990.0
FE	TOTAL IRON	73	30938.3	555.0	117000.0
PB	TOTAL LEAD	71	580.2	4.3	13600.0
MG	TOTAL MAGNESIUM	72	1419.2	98.0	14100.0
MN	TOTAL MANGANESE	73	344.8	22.0	2563.0
HG	TOTAL MERCURY	27	0.6	0.1	1.6
NI	TOTAL NICKEL	69	243.2	6.6	4530.0
AG	TOTAL SILVER	13	3.8	1.6	17.0
NA	TOTAL SODIUM	66	462.6	19.0	5510.0
VA	TOTAL VANADIUM	72	58.8	3.8	413.0
ZN	TOTAL ZINC	73	544.4	13.8	10300.0

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SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA=BORING_SOIL -----					
CHCL3	CHLOROFORM	4	40.9	2.4	140.0
TDCE	TRANS-1,2-DICHLOROETHENE	0	-	-	-
TCE	TRICHLOROETHENE	0	-	-	-
PENT	4-METHYL-2-PENTANONE	1	1800.0	1800.0	1800.0
BENZENE	BENZENE	0	-	-	-
CLBENZ	CHLOROBENZENE	1	6.0	6.0	6.0
TOLUENE	TOLUENE (METHYL BENZENE)	9	68.6	2.0	460.0
XYLENE	TOTAL XYLENES	1	45.0	45.0	45.0
ETHYL	ETHYLBENZENE	0	-	-	-
CD	CARBON DISULFIDE	0	-	-	-
DCB	1,4-DICHLOROBENZENE	0	-	-	-
DICLBZ	3,3-DICHLOROBENZIDINE	0	-	-	-
PHENOL	PHENOL (HYDROXY BENZENE)	0	-	-	-
METPHEN	4-METHYLPHENOL	0	-	-	-
TCP	2,4,6-TRICHLOROPHENOL	0	-	-	-
PCP	PENTACHLOROPHENOL	1	520.0	520.0	520.0
NITRO	4-NITROPHENOL	0	-	-	-
DNT	2,6-DINITROTOLUENE	0	-	-	-
NAPH	NAPHTHALENE	2	2070.0	140.0	4000.0
MNAPH	2-METHYLNAPHTHALENE	0	-	-	-
ISO	ISOPHORONE	2	15200.0	3400.0	27000.0
ACENA	ACENAPHTHENE	2	2950.0	200.0	5700.0
ACEN	ACENAPHTHYLENE	0	-	-	-
ANTH	ANTHRACENE	2	4135.0	370.0	7900.0

AR300857

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

---SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS---

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA=BORING_SOIL -----					
BAN	BENZO (A) ANTHRACENE	2	7900.0	1800.0	14000.0
DA	DIBENZO (A,H) ANTHRACENE	1	320.0	320.0	320.0
PHEN	PHENANTHRENE	2	21300.0	1600.0	41000.0
CHRYSENE	CHRYSENE (BENZO (A) PHENANTHRENE)	2	8050.0	2100.0	14000.0
PYRENE	PYRENE (BENZO (D,E,F) PHENANTHRENE)	2	13600.0	3200.0	24000.0
BAP	BENZO (A) PYRENE	2	7000.0	2000.0	12000.0
IP	INDENO 1,2,3(C,D) PYRENE	2	3350.0	1300.0	5400.0
FLUORENE	FLUORENE (2,3-BENZINDENE)	1	6100.0	6100.0	6100.0
FLU	FLUORANTHENE	2	21050.0	3100.0	39000.0
BF	BENZO (B,K) FLUORANTHENE	2	13500.0	4000.0	23000.0
BGP	BENZO (G,H,I) PERYLENE	2	2550.0	1100.0	4000.0
DIB	DIBENZOFURAN	1	4000.0	4000.0	4000.0
DIMETH	DIMETHYL PHTHALATE	0	-	-	-
DIBUT	DI-N-BUTYL PHTHALATE	6	1939.2	60.0	9600.0
BP	BIS (2-ETHYLHEXYL) PHTHALATE	14	10209.7	44.0	51000.0
BBP	BUTYLBENZYL PHTHALATE	5	193394.0	270.0	940000.0
OCTYL	DI-N-OCTYL PHTHALATE	0	-	-	-
SODI	N-NITROSODIPHENYLAMINE	4	5300.0	1600.0	9300.0
DIELDRIN	DIELDRIN	0	-	-	-
DDE	4,4'-DDE	0	-	-	-
DDD	4,4'-DDD	0	-	-	-
DDT	4,4'-DDT	0	-	-	-
CHLORDANE	CHLORDANE	0	-	-	-
PCB124	AROCHLOR 1248	0	-	-	-

AR300858

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA=30RING_SOIL -----					
PCB1254	AROCHLOR 1254	1	61.0	61.0	61.0
PCB1260	AROCHLOR 1260	0	-	-	-
AL	TOTAL ALUMINUM	22	4626.9	1180.0	11500.0
AR	TOTAL ARSENIC	7	17.8	3.0	61.0
BA	TOTAL BARIUM	18	183.9	12.0	1060.0
BE	TOTAL BERYLLIUM	16	1.5	0.3	4.0
CAD	TOTAL CADMIUM	4	3.9	2.2	7.5
CA	TOTAL CALCIUM	20	13218.9	78.0	90694.0
CO	TOTAL COBALT	18	14.7	6.0	39.0
CU	TOTAL COPPER	21	108.7	6.1	769.0
CR	TOTAL CHROMIUM	22	144.2	6.4	1540.0
FE	TOTAL IRON	22	34473.5	555.0	73800.0
PB	TOTAL LEAD	20	180.6	4.3	1104.0
MG	TOTAL MAGNESIUM	21	899.7	98.0	3150.0
MN	TOTAL MANGANESE	22	311.1	22.0	2563.0
HG	TOTAL MERCURY	6	0.6	0.2	1.5
NI	TOTAL NICKEL	20	234.0	11.0	2806.0
AG	TOTAL SILVER	2	4.0	3.0	5.0
NA	TOTAL SODIUM	20	670.8	86.0	5510.0
VA	TOTAL VANADIUM	21	49.5	12.9	179.1
ZN	TOTAL ZINC	22	199.0	13.8	1346.0

AR300859

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

---SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS---

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA= SURFACE_SOIL -----					
CHCL3	CHLOROFORM	0	-	-	-
TDCE	TRANS-1,2-DICHLOROETHENE	0	-	-	-
TCE	TRICHLOROETHENE	0	-	-	-
PENT	4-METHYL-2-PENTANONE	0	-	-	-
BENZENE	BENZENE	0	-	-	-
CLBENZ	CHLOROBENZENE	0	-	-	-
TOLUENE	TOLUENE (METHYL BENZENE)	13	25.9	2.0	77.0
XYLENE	TOTAL XYLENES	0	-	-	-
ETHYL	ETHYLBENZENE	0	-	-	-
CD	CARBON DISULFIDE	3	2.3	2.0	3.0
DCB	1,4-DICHLOROBENZENE	0	-	-	-
DICLBZ	3,3-DICHLOROBENZIDINE	0	-	-	-
PHENOL	PHENOL (HYDROXY BENZENE)	0	-	-	-
METPHEN	4-METHYLPHENOL	0	-	-	-
TCP	2,4,6-TRICHLOROPHENOL	1	53.0	53.0	53.0
PCP	PENTACHLOROPHENOL	1	150.0	150.0	150.0
NITRO	4-NITROPHENOL	0	-	-	-
DNT	2,6-DINITROTOLUENE	1	660.0	660.0	660.0
NAPH	NAPHTHALENE	4	91.8	35.0	250.0
HNAPH	2-METHYLNAPHTHALENE	2	181.0	42.0	320.0
ISO	ISOPHORONE	3	330.0	200.0	410.0
ACENA	ACENAPHTHENE	0	-	-	-
ACEN	ACENAPHTHYLENE	3	143.0	34.0	230.0
ANTH	ANTHRACENE	5	168.4	33.0	390.0

AR300860

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA=SURFACE_SOIL -----					
BAN	BENZO (A) ANTHRACENE	14	320.0	44.0	1100.0
DA	DIBENZO (A,H) ANTHRACENE	1	250.0	250.0	250.0
PHEN	PHENANTHRENE	14	250.7	34.0	1700.0
CHRYSENE	CHRYSENE (BENZO (A) PHENANTHRENE)	15	340.9	37.0	1400.0
PYRENE	PYRENE (BENZO (D,E,F) PHENANTHRENE)	17	416.4	32.0	2200.0
BAP	BENZO (A) PYRENE	14	220.2	43.0	830.0
IP	INDENO 1,2,3(C,D) PYRENE	8	177.0	43.0	840.0
FLUORENE	FLUORENE (2,3-BENZINDENE)	0	-	-	-
FLU	FLUORANTHENE	17	477.1	28.0	2300.0
BF	BENZO (B,K) FLUORANTHENE	14	486.4	71.0	2700.0
BSP	BENZO (G,H,I) PERYLENE	7	176.1	41.0	700.0
DIB	DIBENZOFURAN	1	41.0	41.0	41.0
DIMETH	DIMETHYL PHTHALATE	0	-	-	-
DIBUT	DI-N-BUTYL PHTHALATE	0	-	-	-
BP	BIS (2-ETHYLHEXYL) PHTHALATE	18	1022.8	150.0	6600.0
BSP	BUTYLHEXYL PHTHALATE	16	1927.9	44.0	23000.0
OCTYL	DI-N-OCTYL PHTHALATE	0	-	-	-
SODI	N-NITROSODIPHENYLAMINE	0	-	-	-
DIELDRIN	DIELDRIN	2	40.5	45.0	48.0
DDE	4,4-DDE	0	-	-	-
DDD	4,4-DDD	0	-	-	-
DDT	4,4-DDT	3	59.0	24.0	92.0
CHLORDAN	CHLORDANE	3	160.0	20.0	360.0
PCB1248	AROCHLOR 1248	1	920.0	920.0	920.0

AR300861

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA= SURFACE SOIL -----					
PCB1254	AROCHLOR 1254	2	695.0	530.0	860.0
PCB1260	AROCHLOR 1260	0	-	-	-
AL	TOTAL ALUMINUM	21	9825.2	4900.0	21300.0
AR	TOTAL ARSENIC	16	12.1	2.9	54.0
BA	TOTAL BARIUM	18	175.3	37.0	605.0
BE	TOTAL BERYLLIUM	10	1.1	0.7	2.5
CAD	TOTAL CADMIUM	4	2.9	2.1	4.2
CA	TOTAL CALCIUM	17	5860.5	325.0	41300.0
CO	TOTAL COBALT	17	11.1	2.8	31.0
CU	TOTAL COPPER	20	100.6	11.0	332.0
CR	TOTAL CHROMIUM	21	87.9	17.0	1060.0
FE	TOTAL IRON	21	18170.3	7450.0	43400.0
PB	TOTAL LEAD	21	241.1	8.4	1930.0
MG	TOTAL MAGNESIUM	21	1576.4	252.0	14100.0
MN	TOTAL MANGANESE	21	346.5	44.0	1430.0
HG	TOTAL MERCURY	2	0.1	0.1	0.2
NI	TOTAL NICKEL	19	42.2	6.6	367.0
AG	TOTAL SILVER	8	2.1	1.6	2.6
NA	TOTAL SODIUM	16	130.3	54.0	655.0
VA	TOTAL VANADIUM	21	45.3	22.0	119.0
ZN	TOTAL ZINC	21	290.8	18.0	1690.0

AR300862

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA=TEST_PIT_SOIL -----					
CHCL3	CHLOROFORM	2	1.5	1.0	2.0
TDCE	TRANS-1,2-DICHLOROETHENE	2	4.0	2.0	6.0
YCE	TRICHLOROETHENE	1	2.0	2.0	2.0
PENT	4-METHYL-2-PENTANONE	2	5.0	5.0	5.0
BENZENE	BENZENE	1	2.0	2.0	2.0
CLBENZ	CHLOROBENZENE	6	53.6	5.0	180.0
TOLUENE	TOLUENE (METHYL BENZENE)	14	1257362.1	1.0	1700000.0
XYLENE	TOTAL XYLENES	6	298517.8	2.0	1400000.0
ETHYL	ETHYL BENZENE	6	80047.0	3.0	360000.0
CD	CARBON DISULFIDE	9	39.8	2.0	310.0
DCB	1,4-DICHLOROBENZENE	1	570.0	570.0	570.0
DICLBZ	3,3-DICHLOROBENZIDINE	1	120000.0	120000.0	120000.0
PHENOL	PHENOL (HYDROXY BENZENE)	4	151.3	40.0	410.0
METPHEN	4-METHYLPHENOL	4	78.8	55.0	110.0
TCP	2,4,6-TRICHLOROPHENOL	0	-	-	-
PCP	PENTACHLOROPHENOL	2	720.0	140.0	1300.0
NITRO	4-NITROPHENOL	1	570.0	570.0	570.0
DNT	2,6-DINITROTOLUENE	0	-	-	-
NAPH	NAPHTHALENE	11	259.7	97.0	760.0
2NAPH	2-METHYLNAPHTHALENE	5	101.8	97.0	130.0
ISO	ISOPHORONE	10	2422.9	47.0	21000.0
ACENA	ACENAPHTHENE	5	99.6	62.0	140.0
ACEN	ACENAPHTHYLENE	4	327.0	63.0	740.0
ANTH	ANTHRACENE	12	2546.8	34.0	20000.0

AR300863

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
----- SAMPLE MEDIA=TEST_PIT_SOIL -----					
HAN	BENZO (A) ANTHRACENE	17	5633.9	32.0	52000.0
DA	DIBENZO (A,H) ANTHRACENE	4	1925.0	150.0	6900.0
PHEN	PHENANTHRENE	17	5391.3	75.0	72000.0
CHRYSENE	CHRYSENE (BENZO (A) PHENANTHRENE)	10	5617.3	67.0	45000.0
PYRENE	PYRENE (BENZO (D,E,F) PHENANTHRENE)	18	7181.4	96.0	84000.0
BAP	BENZO (A) PYRENE	14	4073.0	82.0	47000.0
IP	INDENO 1,2,3(C,D) PYRENE	14	2572.4	73.0	26000.0
FLUORENE	FLUORENE (2,3-BENZINDENE)	6	1220.0	60.0	6500.0
FLU	FLUORANTHENE	18	9798.6	45.0	120000.0
BF	BENZO (B,K) FLUORANTHENE	14	7337.9	270.0	81000.0
BGP	BENZO (G,H,I) PERYLENE	12	2919.3	47.0	25000.0
DIB	DIBENZOFURAN	5	770.0	90.0	3200.0
DIMETH	DIMETHYL PHTHALATE	1	190.0	190.0	190.0
DIBUT	DI-N-BUTYL PHTHALATE	19	798.9	30.0	6600.0
BP	BIS (2-ETHYLHEXYL) PHTHALATE	22	22472.3	110.0	270000.0
BPP	BUTYLSENYL PHTHALATE	18	7958.4	61.0	62000.0
OCTYL	DI-N-OCTYL PHTHALATE	2	290.0	240.0	340.0
SODI	N-NITROSODIPHENYLAMINE	0	-	-	-
DIELDRIN	DIELDRIN	0	-	-	-
DDE	4,4-DDe	1	63.0	63.0	63.0
DDD	4,4-DDD	1	160.0	160.0	160.0
DDT	4,4-DDT	1	80.0	80.0	80.0
CHLORDAN	CHLORDANE	3	550.7	160.0	1100.0
PCB1248	AROCHELOR 1248	9	3347.8	190.0	14000.0

AR300864

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR SAMPLES FROM BORINGS, SURFACE SOILS, AND TEST PITS--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
PCB1254	AROCHLOR 1254	7	1875.7	400.0	7300.0
PCB1260	AROCHLOR 1260	1	1100.0	1100.0	1100.0
AL	TOTAL ALUMINUM	30	8746.3	1720.0	14700.0
AR	TOTAL ARSENIC	23	24.0	1.0	166.0
BA	TOTAL BARIUM	29	589.2	16.0	6370.0
BE	TOTAL BERYLLIUM	23	4.7	0.6	81.0
CAD	TOTAL CADMIUM	16	11.1	2.6	89.0
CA	TOTAL CALCIUM	30	28311.6	152.0	221000.0
CO	TOTAL COBALT	29	17.1	2.3	59.0
CU	TOTAL COPPER	30	292.2	14.0	1790.0
CR	TOTAL CHROMIUM	29	247.0	3.8	1990.0
FE	TOTAL IRON	30	37283.3	2600.0	117000.0
PB	TOTAL LEAD	30	1084.1	6.9	13600.0
MG	TOTAL MAGNESIUM	30	1672.9	253.0	6810.0
MN	TOTAL MANGANESE	30	358.3	34.0	1220.0
HG	TOTAL MERCURY	19	0.6	0.2	1.6
NI	TOTAL NICKEL	30	376.6	9.3	4530.0
AG	TOTAL SILVER	3	8.1	1.9	17.0
NA	TOTAL SODIUM	30	501.1	19.0	3230.0
VA	TOTAL VANADIUM	30	74.9	3.8	413.0
ZN	TOTAL ZINC	30	974.9	36.0	10300.0

AR300865

SUMMARY OF CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	CHLOROFORM	TRANS 1,2 DICHLORO ETHENE	TRICHLORO ETHENE	4-METHYL 2-PENTANONE
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	16	-	-	-
05S-015	2	-	-	-
06S-008	-	-	-	-
06S-016	-	-	-	1,800
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-
10S-006	-	-	-	-
10S-015	5	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	140	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-

SAMPLE NUMBER	BENZENE	CHLORO BENZENE	TOLUENE (METHYL BENZENE)	TOTAL XYLENES	ETHYL BENZENE	CARBON DISULFIDE
04S-007	-	-	2	-	-	-
04S-026	-	-	2	-	-	-
05S-005	-	-	17	-	-	-
05S-015	-	-	2	-	-	-
06S-008	-	-	110	45	-	-
06S-016	-	-	460	-	-	-
08S-008	-	-	-	-	-	-
08S-015	-	-	16	-	-	-
09S-006	-	-	4	-	-	-
09S-015	-	-	4	-	-	-
10S-006	-	-	-	-	-	-
10S-015	-	-	-	-	-	-
11S-006	-	-	-	-	-	-
11S-013	-	6	-	-	-	-
11S-029	-	-	-	-	-	-
11S-035	-	-	-	-	-	-
11S-049	-	-	-	-	-	-
12S-005	-	-	-	-	-	-

AR300866

SUMMARY OF CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	CHLOROFORM	TRANS 1,2 DICHLORO ETHENE	TRICHLORO ETHENE	4-METHYL 2-PENTANONE
12S-015	-	-	-	-
12S-065	-	-	-	-
13S-005	-	-	-	-
13S-015	-	-	-	-

SAMPLE NUMBER	BENZENE	CHLORO BENZENE	TOLUENE (METHYL BENZENE)	TOTAL XYLENES	ETHYL BENZENE	CARBON DISULFIDE
12S-015	-	-	-	-	-	-
12S-065	-	-	-	-	-	-
13S-005	-	-	-	-	-	-
13S-015	-	-	-	-	-	-

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	CHLOROFORM	TRANS 1,2 DICHLORO ETHENE	TRICHLORO ETHENE	4-METHYL 2-PENTANONE
SD-01	-	-	-	-
SD-02	-	-	-	-
SD-03	-	-	-	-
SD-04	-	-	-	-
SD-05	-	-	-	-
SD-07	-	-	-	-
SD-08	-	-	-	-
SD-09	-	-	-	-

SAMPLE NUMBER	BENZENE	CHLORO BENZENE	TOLUENE (METHYL BENZENE)	TOTAL XYLENES	ETHYL BENZENE	CARBON DISULFIDE
SD-01	-	-	-	-	-	-
SD-02	-	-	-	-	-	-
SD-03	-	-	48	-	-	2
SD-04	-	-	-	-	-	-
SD-05	-	-	-	-	-	-
SD-07	-	-	3	-	-	-
SD-08	-	-	-	-	-	-
SD-09	-	-	7	-	-	2

AR300863

SUMMARY OF CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE SOIL-----

SAMPLE NUMBER	CHLOROFORM	TRANS 1,2 DICHLORO ETHENE	TRICHLORO ETHENE	4-METHYL 2-PENTANONE
SD-10	-	-	-	-
SD-12	-	-	-	-
SD-13	-	-	-	-
SD-14	-	-	-	-
SD-15	-	-	-	-
SD-16	-	-	-	-
SD-17	-	-	-	-
SD-18	-	-	-	-
SS-01	-	-	-	-
SS-02	-	-	-	-
SS-03	-	-	-	-
SS-04	-	-	-	-
SS-05	-	-	-	-

SAMPLE NUMBER	BENZENE	CHLORO BENZENE	TOLUENE (METHYL BENZENE)	TOTAL XYLENES	ETHYL BENZENE	CARBON DISULFIDE
SD-10	-	-	-	-	-	-
SD-12	-	-	6	-	-	-
SD-13	-	-	-	-	-	-
SD-14	-	-	8	-	-	3
SD-15	-	-	6	-	-	-
SD-16	-	-	2	-	-	-
SD-17	-	-	-	-	-	-
SD-18	-	-	73	-	-	-
SS-01	-	-	67	-	-	-
SS-02	-	-	77	-	-	-
SS-03	-	-	14	-	-	-
SS-04	-	-	3	-	-	-
SS-05	-	-	18	-	-	-

AR300868

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SUMMARY OF CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	CHLOROFORM	TRANS 1,2 DICHLORO ETHENE	TRICHLORO ETHENE	4-METHYL 2-PENTANONE	BENZENE
TP-A	-	-	-	-	-
TP-B	-	-	-	-	-
TP-C	2	-	2	-	-
TP-D	-	-	-	-	-
TP-E	-	-	-	-	-
TP-F	-	-	-	-	-
TP-G	1	-	-	-	-
TP-H	-	-	-	-	-
TP-I	-	-	-	-	-
TP-J	-	-	-	-	-
TP-K	-	-	-	-	-
TP-L	-	-	-	-	-
TP-M0	-	-	-	-	-
TP-M1	-	2	-	-	-
TP-M2	-	6	-	-	-
TP-M3	-	-	-	-	-
TP-N0	-	-	-	-	-
TP-N1	-	-	-	-	-

SAMPLE NUMBER	CHLORO BENZENE	TOLUENE (METHYL BENZENE)	TOTAL XYLENES	ETHYL BENZENE	CARBON DISULFIDE
TP-A	-	-	-	-	-
TP-B	-	-	490	270	310
TP-C	-	5	-	-	5
TP-D	-	-	-	-	-
TP-E	-	-	-	-	-
TP-F	-	-	-	-	-
TP-G	-	2	-	-	-
TP-H	-	-	-	-	-
TP-I	-	-	-	-	-
TP-J	-	-	-	-	-
TP-K	-	-	-	-	-
TP-L	-	-	-	-	-
TP-M0	-	1	-	-	-
TP-M1	-	13	-	-	13
TP-M2	23	3	-	-	7
TP-M3	80	3	-	-	6
TP-N0	-	5	-	-	5
TP-N1	-	-	-	-	-

AR 300869

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SUMMARY OF CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	CHLOROFORM	TRANS 1,2 DICHLORO ETHENE	TRICHLORO ETHENE	4-METHYL 2-PENTANONE	BENZENE
TP-O	-	-	-	-	-
TP-P	-	-	-	-	-
TP-Q	-	-	-	5	-
TP-R0	-	-	-	5	-
TP-R1	-	-	-	-	-
TP-S	-	-	-	-	-
TP-T	-	-	-	-	-
TP-U	-	-	-	-	2
TP-V	-	-	-	-	-
TP-W	-	-	-	-	-
TP-X	-	-	-	-	-
TP-Y	-	-	-	-	-

SAMPLE NUMBER	CHLORO BENZENE	TOLUENE (METHYL BENZENE)	TOTAL XYLENES	ETHYL BENZENE	CARBON DISULFIDE
TP-O	-	-	-	-	-
TP-P	62	16	5	4	2
TP-Q	5	4	2	5	6
TP-R0	180	3	-	-	4
TP-R1	-	17,000,000	1,400,000	360,000	-
TP-S	-	-	-	-	-
TP-T	-	11	610	3	-
TP-U	3	3	-	-	-
TP-V	-	-	-	-	-
TP-W	-	610,000	390,000	120,000	-
TP-X	-	-	-	-	-
TP-Y	-	-	-	-	-

AR300870

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	1,4-DICHLORO BENZENE	3,3-DICHLORO BENZIDINE	PHENOL (HYDROXY BENZENE)	4-METHYL PHENOL
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	-	-	-	-
05S-015	-	-	-	-
06S-008	-	-	-	-
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-

SAMPLE NUMBER	2,4,6-TRICHLORO PHENOL	PENTACHLORO PHENOL	4-NITRO PHENOL	2,6-DINITRO TOLUENE
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	-	520	-	-
05S-015	-	-	-	-
06S-008	-	-	-	-
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-

SAMPLE NUMBER	NAPHTHALENE	2-METHYL NAPHTHALENE	ISOPHORONE	ACENAPHTHENE
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	140	-	3,400	200
05S-015	-	-	-	-
06S-008	4,000	-	27,000	5,700
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-

AR300871

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SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	ACENAPHTHYLENE	ANTHRACENE	BENZO (A) ANTHRACENE	DIBENZO (A,H) ANTHRACENE
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	-	370	1,800	320
05S-015	-	-	-	-
06S-008	-	7,900	14,000	-
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-

SAMPLE NUMBER	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)	BENZO (A) PYRENE
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	1,600	2,100	3,200	2,000
05S-015	-	-	-	-
06S-008	41,000	14,000	24,000	12,000
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-

SAMPLE NUMBER	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE	BENZO (B,K) FLUORANTHENE
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	1,300	-	3,100	4,000
05S-015	-	-	-	-
06S-008	5,400	6,100	39,000	23,000
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-

AR300872

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE
04S-007	-	-	-	60
04S-026	-	-	-	75
05S-005	1,100	-	-	-
05S-015	-	-	-	-
06S-008	4,000	4,000	-	-
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
04S-007	61	-	-	-
04S-026	44	-	-	-
05S-005	920	270	-	-
05S-015	52	-	-	-
06S-008	23,000	3,300	-	9,300
06S-016	6,300	-	-	2,500
08S-008	51,000	-	-	7,800
08S-015	2,400	-	-	1,600
09S-006	48	-	-	-
09S-015	49,000	1,400	-	-

AR300873

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	1,4-DICHLORO BENZENE	3,3-DICHLORO BENZIDINE	PHENOL (HYDROXY BENZENE)	4-METHYL PHENOL
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-
SAMPLE NUMBER	2,4,6-TRICHLORO PHENOL	PENTACHLORO PHENOL	4-NITRO PHENOL	2,6-DINITRO TOLUENE
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-
SAMPLE NUMBER	NAPHTHALENE	2-METHYL NAPHTHALENE	ISOPHORONE	ACENAPHTHENE
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-

AR300874

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	ACENAPHTHYLENE	ANTHRACENE	BENZO (A) ANTHRACENE	DIBENZO (A,H) ANTHRACENE
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-

SAMPLE NUMBER	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)	BENZO (A) PYRENE
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-

SAMPLE NUMBER	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE	BENZO (B,K) FLUORANTHENE
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-

AR 300875

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	300
11S-029	-	-	-	840
11S-035	-	-	-	9,600
11S-049	-	-	-	760
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
10S-006	47	-	-	-
10S-015	110	-	-	-
11S-006	-	940,000	-	-
11S-013	-	-	-	-
11S-029	54	-	-	-
11S-035	4,900	17,000	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-
12S-065	-	-	-	-

AR300876

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	1,4-DICHLORO BENZENE	3,3-DICHLORO BENZIDINE	PHENOL (HYDROXY BENZENE)	4-METHYL PHENOL
13S-005	-	-	-	-
13S-015	-	-	-	-

SAMPLE NUMBER	2,4,5-TRICHLORO PHENOL	PENTACHLORO PHENOL	4-NITRO PHENOL	2,6-DINITRO TOLUENE
13S-005	-	-	-	-
13S-015	-	-	-	-

SAMPLE NUMBER	NAPHTHALENE	2-METHYL NAPHTHALENE	ISOPHORONE	ACENAPHTHENE
13S-005	-	-	-	-
13S-015	-	-	-	-

SAMPLE NUMBER	ACENAPHTHYLENE	ANTHRACENE	BENZO (A) ANTHRACENE	DIBENZO (A,H) ANTHRACENE
13S-005	-	-	-	-
13S-015	-	-	-	-

AR300877

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)	BENZO (A) PYRENE
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13S-005
13S-015

-
-

-
-

-
-

-
-

SAMPLE NUMBER	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE	BENZO (B,K) FLUORANTHENE)
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13S-005
13S-015

-
-

-
-

-
-

-
-

SAMPLE NUMBER	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-3UTYL PHTHALATE
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13S-005
13S-015

-
-

-
-

-
-

-
-

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
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13S-005
13S-015

-
-

-
-

-
-

-
-

AR300878

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE 1,4-DICHLORO 3,3-DICHLORO PHENOL 4-METHYL 2,4,6-TRICHLORO
NUMBER BENZENE BENZIDINE (HYDROXY PHENOL PHENOL
BENZENE)

SD-01	-	-	-	-	-
SD-02	-	-	-	-	-
SD-03	-	-	-	-	-
SD-04	-	-	-	-	-
SD-05	-	-	-	-	-
SD-07	-	-	-	-	53
SD-08	-	-	-	-	-
SD-09	-	-	-	-	-
SD-10	-	-	-	-	-
SD-12	-	-	-	-	-

SAMPLE PENTACHLORO 4-NITRO 2,6-DINITRO NAPHTHALENE 2-METHYL
NUMBER PHENOL PHENOL TOLUENE NAPHTHALENE NAPHTHALENE

SD-01	-	-	-	-	-
SD-02	-	-	660	-	-
SD-03	-	-	-	-	-
SD-04	-	-	-	40	42
SD-05	-	-	-	-	-
SD-07	-	-	-	35	-
SD-08	-	-	-	-	-
SD-09	-	-	-	-	-
SD-10	-	-	-	-	-
SD-12	150	-	-	-	-

SAMPLE ISOPHORONE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO (A)
NUMBER ANTHRACENE

SD-01	-	-	-	-	110
SD-02	-	-	-	-	53
SD-03	-	-	-	-	92
SD-04	-	-	34	87	600
SD-05	-	-	-	-	200
SD-07	-	-	-	-	140
SD-08	-	-	-	-	-
SD-09	-	-	-	-	-
SD-10	-	-	-	-	-
SD-12	-	-	230	270	680

AR200879

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	DIBENZO (A,H) ANTHRACENE	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)
SD-01	-	140	110	160
SD-02	-	34	37	43
SD-03	-	79	90	120
SD-04	-	350	380	340
SD-05	-	160	160	160
SD-07	-	120	130	160
SD-08	-	-	-	-
SD-09	-	72	67	60
SD-10	250	-	1,200	1,200
SD-12	-	370	960	1,900

SAMPLE NUMBER	BENZO (A) PYRENE	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE
SD-01	130	130	-	310
SD-02	51	50	-	47
SD-03	120	100	-	110
SD-04	390	52	-	550
SD-05	120	86	-	190
SD-07	94	48	-	200
SD-08	-	-	-	-
SD-09	49	-	-	98
SD-10	750	840	-	1,300
SD-12	850	-	-	2,300

SAMPLE NUMBER	BENZO (B,K) FLUORANTHENE)	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE
SD-01	200	110	-	-	-
SD-02	71	52	-	-	-
SD-03	150	100	-	-	-
SD-04	490	130	-	-	-
SD-05	230	-	41	-	-
SD-07	190	41	-	-	-
SD-08	-	-	-	-	-
SD-09	120	-	-	-	-
SD-10	2,700	700	-	-	-
SD-12	1,700	-	-	-	-

AR300880

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYL BENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
SD-01	1,400	500	-	-
SD-02	180	88	-	-
SD-03	300	360	-	-
SD-04	2,200	2,400	-	-
SD-05	400	1,300	-	-
SD-07	340	510	-	-
SD-08	150	51	-	-
SD-09	150	360	-	-
SD-10	500	1,000	-	-
SD-12	2,100	3,400	-	-

AR300881

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE 1,4-DICHLORO 3,3-DICHLORO PHENOL 4-METHYL 2,4,6-TRICHLORO
NUMBER BENZENE BENZIDINE (HYDROXY PHENOL PHENOL
BENZENE)

SD-13	-	-	-	-	-
SD-14	-	-	-	-	-
SD-15	-	-	-	-	-
SD-16	-	-	-	-	-
SD-17	-	-	-	-	-
SD-18	-	-	-	-	-
SS-01	-	-	-	-	-
SS-02	-	-	-	-	-
SS-03	-	-	-	-	-
SS-04	-	-	-	-	-

SAMPLE PENTACHLORO 4-NITRO 2,6-DINITRO NAPHTHALENE 2-METHYL
NUMBER PHENOL PHENOL TOLUENE NAPHTHALENE NAPHTHALENE

SD-13	-	-	-	-	-
SD-14	-	-	-	250	320
SD-15	-	-	-	42	-
SD-16	-	-	-	-	-
SD-17	-	-	-	-	-
SD-18	-	-	-	-	-
SS-01	-	-	-	-	-
SS-02	-	-	-	-	-
SS-03	-	-	-	-	-
SS-04	-	-	-	-	-

SAMPLE ISOPHORONE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO (A)
NUMBER ANTHRACENE

SD-13	-	-	-	-	44
SD-14	380	-	180	390	1,100
SD-15	200	-	-	33	91
SD-16	-	-	-	-	-
SD-17	-	-	-	-	48
SD-18	-	-	-	-	92
SS-01	410	-	-	-	-
SS-02	-	-	-	-	-
SS-03	-	-	-	62	130
SS-04	-	-	-	-	-

AR300882

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	DIBENZO (A,H) ANTHRACENE	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)
SD-13	-	51	53	71
SD-14	-	1,700	1,400	2,200
SD-15	-	190	100	150
SD-16	-	-	-	62
SD-17	-	40	57	54
SD-18	-	94	130	140
SS-01	-	-	-	32
SS-02	-	-	-	-
SS-03	-	110	240	260
SS-04	-	-	-	-

SAMPLE NUMBER	BENZO (A) PYRENE	INDENO 1,2,3 (C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE
SD-13	49	-	-	120
SD-14	-	-	-	2,000
SD-15	92	-	-	250
SD-16	-	-	-	-
SD-17	48	-	-	67
SD-18	110	-	-	170
SS-01	-	-	-	40
SS-02	-	-	-	28
SS-03	200	110	-	330
SS-04	-	-	-	-

SAMPLE NUMBER	BENZO (B,K) FLUORANTHENE)	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE
SD-13	110	-	-	-	-
SD-14	-	-	-	-	-
SD-15	200	-	-	-	-
SD-16	-	-	-	-	-
SD-17	89	-	-	-	-
SD-18	180	-	-	-	-
SS-01	-	-	-	-	-
SS-02	-	-	-	-	-
SS-03	380	100	-	-	-
SS-04	-	-	-	-	-

AR300883

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
SD-13	530	510	-	-
SD-14	6,600	23,000	-	-
SD-15	380	350	-	-
SD-16	480	220	-	-
SD-17	220	180	-	-
SD-18	1,500	230	-	-
SS-01	500	44	-	-
SS-02	-	-	-	-
SS-03	420	200	-	-
SS-04	-	-	-	-

AR300884

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	1,4-DICHLORO BENZENE	3,3-DICHLORO BENZIDINE	PHENOL (HYDROXY BENZENE)	4-METHYL PHENOL	2,4,6-TRICHLORO PHENOL
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SS-05 - - - - -

SAMPLE NUMBER	PENTACHLORO PHENOL	4-NITRO PHENOL	2,6-DINITRO TOLUENE	NAPHTHALENE	2-METHYL NAPHTHALENE
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SS-35

SAMPLE NUMBER	ISOPHORONE	ACENAPHTHENE	ACENAPHTHYLENE	ANTHRACENE	BENZO (A) ANTHRACENE
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SS-35 - - - - -

SAMPLE NUMBER	DIBENZO (A,H) ANTHRACENE	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)
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SS-05 - -

SAMPLE NUMBER	BENZO (A) PYRENE	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE
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SS-35 - - -

SAMPLE NUMBER	BENZO (3,K) FLUORANTHENE)	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-UTYL PHTHALATE
1	1	1	1	1	1
2	1	1	1	1	1
3	1	1	1	1	1
4	1	1	1	1	1
5	1	1	1	1	1
6	1	1	1	1	1
7	1	1	1	1	1
8	1	1	1	1	1
9	1	1	1	1	1
10	1	1	1	1	1
11	1	1	1	1	1
12	1	1	1	1	1
13	1	1	1	1	1
14	1	1	1	1	1
15	1	1	1	1	1
16	1	1	1	1	1
17	1	1	1	1	1
18	1	1	1	1	1
19	1	1	1	1	1
20	1	1	1	1	1
21	1	1	1	1	1
22	1	1	1	1	1
23	1	1	1	1	1
24	1	1	1	1	1
25	1	1	1	1	1
26	1	1	1	1	1
27	1	1	1	1	1
28	1	1	1	1	1
29	1	1	1	1	1
30	1	1	1	1	1
31	1	1	1	1	1
32	1	1	1	1	1
33	1	1	1	1	1
34	1	1	1	1	1
35	1	1	1	1	1
36	1	1	1	1	1
37	1	1	1	1	1
38	1	1	1	1	1
39	1	1	1	1	1
40	1	1	1	1	1
41	1	1	1	1	1
42	1	1	1	1	1
43	1	1	1	1	1
44	1	1	1	1	1
45	1	1	1	1	1
46	1	1	1	1	1
47	1	1	1	1	1
48	1	1	1	1	1
49	1	1	1	1	1
50	1	1	1	1	1
51	1	1	1	1	1
52	1	1	1	1	1
53	1	1	1	1	1
54	1	1	1	1	1
55	1	1	1	1	1
56	1	1	1	1	1
57	1	1	1	1	1
58	1	1	1	1	1
59	1	1	1	1	1
60	1	1	1	1	1
61	1	1	1	1	1
62	1	1	1	1	1
63	1	1	1	1	1
64	1	1	1	1	1
65	1	1	1	1	1
66	1	1	1	1	1
67	1	1	1	1	1
68	1	1	1	1	1
69	1	1	1	1	1
70	1	1	1	1	1
71	1	1	1	1	1
72	1	1	1	1	1
73	1	1	1	1	1
74	1	1	1	1	1
75	1	1	1	1	1
76	1	1	1	1	1
77	1	1	1	1	1
78	1	1	1	1	1
79	1	1	1	1	1
80	1	1	1	1	

33-35

SIMPLE ALBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
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55-15



SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE 1,4-DICHLORO 3,3-DICHLORO PHENOL 4-METHYL 2,4,6-TRICHLORO
NUMBER BENZENE BENZIDINE (HYDROXY PHENOL PHENOL
BENZENE)

TP-A	-	-	-	-	-
TP-B	-	-	-	-	-
TP-C	-	-	-	-	-
TP-D	-	-	-	-	-
TP-E	-	-	-	-	-
TP-F	-	-	-	-	-
TP-G	-	-	-	-	-
TP-H	-	-	45	-	-
TP-I	-	-	410	110	-
TP-J	-	-	-	-	-

SAMPLE PENTACHLORO 4-NITRO 2,6-DINITRO NAPHTHALENE 2-METHYL
NUMBER PHENOL PHENOL TOLUENE NAPHTHALENE

TP-A	-	-	-	-	-
TP-B	-	-	-	-	-
TP-C	-	-	-	-	-
TP-D	-	-	-	-	-
TP-E	-	-	-	-	-
TP-F	-	-	-	-	-
TP-G	-	-	-	-	-
TP-H	-	-	-	160	-
TP-I	-	-	-	97	-
TP-J	-	-	-	-	-

SAMPLE ISOPHORONE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO (A)
NUMBER ANTHRACENE

TP-A	-	-	-	-	-
TP-B	-	-	-	-	-
TP-C	-	-	-	-	2,100
TP-D	-	-	-	-	-
TP-E	-	-	-	58	120
TP-F	-	-	-	-	-
TP-G	-	-	-	-	-
TP-H	-	-	-	-	210
TP-I	-	-	-	200	83
TP-J	-	-	-	34	165

AR300886

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	DIBENZO (A,H) ANTHRACENE	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)
TP-A	-	-	-	-
TP-B	-	-	-	-
TP-C	-	2,400	-	2,500
TP-D	-	-	-	-
TP-E	-	160	170	230
TP-F	-	-	-	-
TP-G	-	-	-	-
TP-H	-	360	310	610
TP-I	-	700	1,000	1,700
TP-J	-	78	210	380

SAMPLE NUMBER	BENZO (A) PYRENE	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE
TP-A	-	-	-	-
TP-B	-	-	-	-
TP-C	-	-	-	3,100
TP-D	-	-	-	-
TP-E	130	110	-	190
TP-F	-	-	-	-
TP-G	-	-	-	-
TP-H	360	350	-	360
TP-I	960	460	-	940
TP-J	82	-	-	200

SAMPLE NUMBER	BENZO (B,K) FLUORANTHENE)	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE
TP-A	-	-	-	-	63
TP-B	-	-	-	-	3,100
TP-C	-	-	-	-	-
TP-D	-	-	-	-	-
TP-E	230	47	-	-	130
TP-F	-	-	-	-	-
TP-G	-	-	-	-	-
TP-H	550	430	-	-	100
TP-I	1,500	420	-	190	350
TP-J	270	-	-	-	120

AR300887

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
TP-A	-	-	-	-
TP-B	11,000	6,100	-	-
TP-C	-	-	-	-
TP-D	-	-	-	-
TP-E	250	61	-	-
TP-F	-	-	-	-
TP-G	-	-	-	-
TP-H	3,600	1,200	-	-
TP-I	11,000	3,100	-	-
TP-J	1,400	5,000	-	-

AR300888

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE 1,4-DICHLORO 3,3-DICHLORO PHENOL 4-METHYL 2,4,6-TRICHLORO
NUMBER BENZENE BENZIDINE (HYDROXY PHENOL PHENOL
BENZENE)

TP-K	-	-	-	-	-
TP-L	570	-	-	-	-
TP-M0	-	-	-	55	-
TP-M1	-	-	-	-	-
TP-M2	-	-	-	-	-
TP-M3	-	-	-	-	-
TP-N0	-	-	-	-	-
TP-N1	-	-	-	-	-
TP-O	-	-	40	-	-
TP-P	-	-	-	62	-

SAMPLE PENTACHLORO 4-NITRO 2,6-DINITRO NAPHTHALENE 2-METHYL
NUMBER PHENOL PHENOL TOLUENE NAPHTHALENE NAPHTHALENE

TP-K	-	-	-	-	-
TP-L	-	-	-	230	100
TP-M0	140	570	-	100	130
TP-M1	-	-	-	140	-
TP-M2	-	-	-	-	-
TP-M3	-	-	-	-	-
TP-N0	-	-	-	-	-
TP-N1	-	-	-	-	-
TP-O	-	-	-	470	93
TP-P	-	-	-	240	87

SAMPLE ISOPHORONE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO (A)
NUMBER ANTHRACENE

TP-K	55	-	-	56	190
TP-L	-	76	740	8,000	26,000
TP-M0	47	110	-	340	1,200
TP-M1	-	-	-	-	32
TP-M2	-	-	-	20,000	52,000
TP-M3	-	-	-	-	-
TP-N0	120	-	-	160	490
TP-N1	-	-	-	-	-
TP-O	1,800	140	68	750	1,500
TP-P	110	110	380	640	6,400

AR 300889

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	DIBENZO (A,H) ANTHRACENE	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)
TP-K	-	130	140	210
TP-L	-	5,300	30,000	16,000
TP-M0	150	1,100	830	1,500
TP-M1	-	79	67	96
TP-M2	6,900	72,000	45,000	84,000
TP-M3	-	-	-	2,800
TP-N0	-	410	410	950
TP-N1	-	-	-	-
TP-O	500	1,200	1,300	2,200
TP-P	-	4,200	5,100	7,000

SAMPLE NUMBER	BENZO (A) PYRENE	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE
TP-K	190	130	-	390
TP-L	-	2,600	330	9,100
TP-M0	910	490	110	1,800
TP-M1	-	-	-	45
TP-M2	47,000	26,000	6,500	120,000
TP-M3	-	-	-	23,000
TP-N0	360	250	-	980
TP-N1	-	-	-	-
TP-O	1,400	1,700	120	1,900
TP-P	900	780	200	6,100

SAMPLE NUMBER	BENZO (B,K) FLUORANTHENE)	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE
TP-K	280	130	-	-	120
TP-L	-	-	250	-	2,200
TP-M0	1,900	390	140	-	450
TP-M1	-	-	-	-	94
TP-M2	81,000	25,000	3,200	-	6,600
TP-M3	-	-	-	-	-
TP-N0	660	220	-	-	110
TP-N1	-	-	-	-	64
TP-O	3,000	2,000	90	-	2,400
TP-P	7,400	3,100	170	-	1,900

45300890

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
TP-K	1,000	3,800	-	-
TP-L	130,000	-	-	-
TP-M0	1,400	1,900	340	-
TP-M1	16,000	1,100	-	-
TP-M2	270,000	-	-	-
TP-M3	30,000	-	-	-
TP-N0	270	380	-	-
TP-N1	-	-	-	-
TP-O	1,200	620	-	-
TP-P	2,300	12,000	240	-

AR300891

AR300891

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE 1,4-DICHLORO 3,3-DICHLORO PHENOL 4-METHYL 2,4,6-TRICHLORO
NUMBER BENZENE BENZIDINE (HYDROXY PHENOL PHENOL
GENZENE)

TP-Q	-	-	110	88	-
TP-R0	-	-	-	-	-
TP-R1	-	120,000	-	-	-
TP-S	-	-	-	-	-
TP-T	-	-	-	-	-
TP-U	-	-	-	-	-
TP-V	-	-	-	-	-
TP-W	-	-	-	-	-
TP-X	-	-	-	-	-
TP-Y	-	-	-	-	-

SAMPLE PENTACHLORO 4-NITRO 2,6-DINITRO NAPHTHALENE 2-METHYL
NUMBER PHENOL PHENOL TOLUENE NAPHTHALENE

TP-Q	-	-	-	110	99
TP-R0	-	-	-	-	-
TP-R1	-	-	-	420	-
TP-S	-	-	-	130	-
TP-T	-	-	-	-	-
TP-U	-	-	-	760	-
TP-V	-	-	-	-	-
TP-W	1,300	-	-	-	-
TP-X	-	-	-	-	-
TP-Y	-	-	-	-	-

SAMPLE ISOPHORONE ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO (A)
NUMBER ANTHRACENE

TP-Q	57	62	-	93	210
TP-R0	-	-	-	-	-
TP-R1	-	-	-	-	-
TP-S	670	-	120	230	590
TP-T	21,000	-	-	-	-
TP-U	170	-	-	-	140
TP-V	-	-	-	-	3,600
TP-W	-	-	-	-	-
TP-X	-	-	-	-	-
TP-Y	200	-	-	-	-

AR300892

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	DIBENZO (A,H) ANTHRACENE	PHENANTHRENE	CHRYSENE (BENZO (A) PHENANTHRENE)	PYRENE (BENZO (D,E,F) PHENANTHRENE)
TP-Q	-	250	240	510
TP-R0	-	-	-	-
TP-R1	-	-	-	-
TP-S	150	510	480	790
TP-T	-	-	-	-
TP-U	-	75	120	190
TP-V	-	2,600	4,500	7,600
TP-W	-	-	-	-
TP-X	-	-	-	-
TP-Y	-	-	-	-

SAMPLE NUMBER	BENZO (A) PYRENE	INDENO 1,2,3(C,D) PYRENE	FLUORENE (2,3-BENZINDENE)	FLUORANTHENE
TP-Q	150	100	60	370
TP-R0	-	-	-	-
TP-R1	-	-	-	-
TP-S	630	470	-	1,100
TP-T	-	-	-	-
TP-U	140	73	-	200
TP-V	3,300	2,500	-	6,600
TP-W	-	-	-	-
TP-X	-	-	-	-
TP-Y	-	-	-	-

SAMPLE NUMBER	BENZO (B,K) FLUORANTHENE)	BENZO (G,H,I) PERYLENE	DIBENZO FURAN	DIMETHYL PHTHALATE	DI-N-BUTYL PHTHALATE
TP-Q	320	-	-	-	140
TP-R0	-	-	-	-	-
TP-R1	-	-	-	-	30
TP-S	1,100	480	-	-	66
TP-T	-	-	-	-	-
TP-U	270	64	-	-	62
TP-V	4,200	2,700	-	-	-
TP-W	-	-	-	-	-
TP-X	-	-	-	-	-
TP-Y	-	-	-	-	-

AR300893

SUMMARY OF CONCENTRATIONS OF SEMIVOLATILE ORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	BIS (2-ETHYLHEXYL) PHTHALATE	BUTYLBENZYL PHTHALATE	DI-N-OCTYL PHTHALATE	N-NITROSO DIPHENYLAMINE
TP-Q	540	6,500	-	-
TP-R0	3,300	62,000	-	-
TP-R1	110	-	-	-
TP-S	1,300	450	-	-
TP-T	-	-	-	-
TP-U	420	2,400	-	-
TP-V	2,100	29,000	-	-
TP-W	3,000	1,900	-	-
TP-X	-	-	-	-
TP-Y	3,700	740	-	-

AR300894

SUMMARY OF CONCENTRATIONS OF PESTICIDES AND PCBs
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	DIELDRIN	4,4-DDE	4,4-DDD	4,4-DDT
04S-007	-	-	-	-
04S-026	-	-	-	-
05S-005	-	-	-	-
05S-015	-	-	-	-
06S-008	-	-	-	-
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-

SAMPLE NUMBER	CHLORDANE	AROCHLOR 1248	AROCHLOR 1254	AROCHLOR 1260
04S-007	-	-	-	-
04S-026	-	-	61	-
05S-005	-	-	-	-
05S-015	-	-	-	-
06S-008	-	-	-	-
06S-016	-	-	-	-
08S-008	-	-	-	-
08S-015	-	-	-	-
09S-006	-	-	-	-
09S-015	-	-	-	-
10S-006	-	-	-	-
10S-015	-	-	-	-
11S-006	-	-	-	-
11S-013	-	-	-	-
11S-029	-	-	-	-
11S-035	-	-	-	-
11S-049	-	-	-	-
12S-005	-	-	-	-
12S-015	-	-	-	-

AR300895

SUMMARY OF CONCENTRATIONS OF PESTICIDES AND PCBs
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	DIELDRIN	4,4-DDE	4,4-DDD	4,4-DDT
12S-065	-	-	-	-
13S-005	-	-	-	-
13S-015	-	-	-	-

SAMPLE NUMBER	CHLORDANE	AROCHLOR 1248	AROCHLOR 1254	AROCHLOR 1260
12S-065	-	-	-	-
13S-005	-	-	-	-
13S-015	-	-	-	-

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	DIELDRIN	4,4-DDE	4,4-DDD	4,4-DDT
SD-01	-	-	-	-
SD-02	-	-	-	-
SD-03	-	-	-	-
SD-04	-	-	-	-
SD-05	-	-	-	24
SD-07	-	-	-	-
SD-08	-	-	-	-
SD-09	-	-	-	-
SD-10	-	-	-	-
SD-12	48	-	-	61
SD-13	-	-	-	-

SAMPLE NUMBER	CHLORDANE	AROCHLOR 1248	AROCHLOR 1254	AROCHLOR 1260
SD-01	-	-	-	-
SD-02	-	-	-	-
SD-03	-	-	-	-
SD-04	100	-	-	-
SD-05	-	-	-	-
SD-07	-	-	-	-
SD-08	-	-	-	-
SD-09	-	-	-	-
SD-10	-	-	-	-
SD-12	-	-	860	-
SD-13	-	-	-	-

AR300896

SUMMARY OF CONCENTRATIONS OF PESTICIDES AND PCBs
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	DIELDRIN	4,4-DDE	4,4-DDD	4,4-DDT
SD-14	45	-	-	92
SD-15	-	-	-	-
SD-16	-	-	-	-
SD-17	-	-	-	-
SD-18	-	-	-	-
SS-01	-	-	-	-
SS-02	-	-	-	-
SS-03	-	-	-	-
SS-04	-	-	-	-
SS-05	-	-	-	-

SAMPLE NUMBER	CHLORDANE	AROCHLOR 1243	AROCHLOR 1254	AROCHLOR 1260
SD-14	360	-	-	-
SD-15	-	920	530	-
SD-16	20	-	-	-
SD-17	-	-	-	-
SD-18	-	-	-	-
SS-01	-	-	-	-
SS-02	-	-	-	-
SS-03	-	-	-	-
SS-04	-	-	-	-
SS-05	-	-	-	-

AR300897

SUMMARY OF CONCENTRATIONS OF PESTICIDES AND PCBs
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	DIELDRIN	4,4-DDE	4,4-DDD	4,4-DDT
TP-A	-	-	-	-
TP-B	-	-	-	-
TP-C	-	-	-	-
TP-D	-	-	-	-
TP-E	-	-	-	-
TP-F	-	-	-	-
TP-G	-	-	-	-
TP-H	-	-	-	-
TP-I	-	-	-	-
TP-J	-	-	-	-
TP-K	-	-	-	-
TP-L	-	-	-	-
TP-M0	-	-	-	-
TP-M1	-	-	-	-
TP-M2	-	-	-	-
TP-M3	-	-	-	-
TP-N0	-	-	-	-
TP-N1	-	-	-	-
TP-O	-	-	-	-

SAMPLE NUMBER	CHLORDANE	AROCHLOR 1248	AROCHLOR 1254	AROCHLOR 1260
TP-A	-	-	-	-
TP-B	-	-	-	-
TP-C	-	3,000	-	-
TP-D	-	-	-	-
TP-E	-	1,400	680	-
TP-F	-	2,300	-	-
TP-G	-	14,000	-	-
TP-H	410	-	-	1,100
TP-I	-	460	810	-
TP-J	-	190	-	-
TP-K	-	5,800	-	-
TP-L	-	2,100	1,300	-
TP-M0	1,100	-	940	-
TP-M1	-	-	-	-
TP-M2	160	-	-	-
TP-M3	-	-	-	-
TP-N0	-	-	-	-
TP-N1	-	-	-	-
TP-O	-	880	400	-

AR300898

SUMMARY OF CONCENTRATIONS OF PESTICIDES AND PCBS
IN SURFACE AND SUBSURFACE SOILS (UG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	DIELDRIN	4,4-DDE	4,4-DDD	4,4-DDT
TP-P	-	-	-	-
TP-Q	-	-	-	-
TP-R0	-	-	-	-
TP-R1	-	-	-	-
TP-S	-	-	-	-
TP-T	-	63	160	86
TP-U	-	-	-	-
TP-V	-	-	-	-
TP-W	-	-	-	-
TP-X	-	-	-	-
TP-Y	-	-	-	-

SAMPLE NUMBER	CHLORDANE	AROCHLOR 1248	AROCHLOR 1254	AROCHLOR 1260
TP-P	-	-	-	-
TP-Q	-	-	-	-
TP-R0	-	-	-	-
TP-R1	-	-	-	-
TP-S	-	-	-	-
TP-T	-	-	-	-
TP-U	-	-	-	-
TP-V	-	-	7,300	-
TP-W	-	-	-	-
TP-X	-	-	-	-
TP-Y	-	-	1,700	-

AR300899

SUMMARY OF CONCENTRATIONS OF INORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (MG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	TOTAL ALUMINUM	TOTAL ARSENIC	TOTAL BARIUM	TOTAL BERYLLIUM	TOTAL CADMIUM	TOTAL CALCIUM
04S-007	2,540	-	14	-	3.00	-
04S-026	7,200	-	63	-	-	840
05S-005	6,150	61.00	199	1.50	7.50	12,400
05S-015	5,100	3.00	35	1.50	3.00	295
06S-008	2,914	19.00	92	0.40	-	46,970
06S-016	4,727	-	33	1.80	-	78
08S-008	4,262	15.00	788	0.30	-	90,694
08S-015	7,615	16.00	643	0.90	-	5,774
09S-006	5,490	-	26	4.00	-	-
09S-015	5,580	-	136	-	-	45,200
10S-006	3,222	-	18	1.10	-	11,853

SAMPLE NUMBER	TOTAL COBALT	TOTAL COPPER	TOTAL CHROMIUM	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
04S-007	-	19	22	70,600	-	-
04S-026	28	-	42	73,500	-	860
05S-005	20	296	63	47,200	810	3,030
05S-015	24	16	15	36,400	11	769
06S-008	22	769	1,008	48,250	169	1,243
06S-016	11	14	47	63,313	12	333
08S-008	18	670	1,540	60,755	799	1,691
08S-015	39	167	38	23,123	1,104	657
09S-006	20	24	36	57,400	9	480
09S-015	-	15	18	17,700	141	3,150
10S-006	9	21	25	11,462	10	1,335

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL MERCURY	TOTAL NICKEL	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
04S-007	885	-	43	-	-	35	44
04S-026	523	-	39	-	490	65	78
05S-005	218	1.5	73	-	1,330	45	703
05S-015	161	0.4	35	-	219	34	55
06S-008	296	-	1,395	-	451	123	547
06S-016	33	-	22	-	447	68	52
08S-008	449	1.0	2,806	-	-	179	1,348
08S-015	2,563	0.2	25	-	86	50	454
09S-006	85	-	17	3	580	44	69
09S-015	168	0.6	-	5	5,510	34	1,300
10S-006	119	-	20	-	369	20	62

AR300900

SUMMARY OF CONCENTRATIONS OF INORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (MG/KG)

-----SAMPLE MEDIA=BORING_SOIL-----

SAMPLE NUMBER	TOTAL ALUMINUM	TOTAL ARSENIC	TOTAL BARIUM	TOTAL BERYLLIUM	TOTAL CADMIUM	TOTAL CALCIUM
10S-015	2,731	-	20	0.90	2.20	550
11S-006	8,430	6.56	1,060	-	-	33,900
11S-013	11,500	3.85	30	-	-	2,420
11S-029	3,530	-	18	2.60	-	831
11S-035	1,180	-	-	-	-	9,540
11S-049	2,310	-	12	1.40	-	333
12S-005	2,410	-	-	1.40	-	333
12S-015	6,930	-	66	1.40	-	413
12S-065	1,610	-	-	1.40	-	413
13S-005	2,930	-	58	1.40	-	1,270
13S-015	3,430	-	-	1.40	-	271

SAMPLE NUMBER	TOTAL COBALT	TOTAL COPPER	TOTAL CHROMIUM	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
10S-015	6	34	42	28,379	4	251
11S-006	-	65	117	35,700	425	1,960
11S-013	9	12	19	18,200	13	906
11S-029	17	67	27	73,800	9	259
11S-035	-	11	6	3,990	8	414
11S-049	7	11	47	29,600	14	98
12S-005	7	6	7	6,860	7	98
12S-015	7	15	10	10,200	30	390
12S-065	7	15	7	555	8	392
13S-005	7	18	22	20,900	23	289
13S-015	7	18	14	14,900	5	289

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL MERCURY	TOTAL NICKEL	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
10S-015	30	-	18	-	497	44	42
11S-006	257	0.2	44	-	389	43	500
11S-013	143	-	11	-	320	31	45
11S-029	138	-	19	-	329	56	58
11S-035	22	-	-	-	607	-	29
11S-049	31	-	18	-	247	65	32
12S-005	38	-	18	-	247	16	14
12S-015	166	-	18	-	247	18	34
12S-065	166	-	18	-	247	13	34
13S-005	86	-	18	-	442	36	31
13S-015	218	-	18	-	363	20	24

AR300901

SUMMARY OF CONCENTRATIONS OF INORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (MG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	TOTAL ALUMINUM	TOTAL ARSENIC	TOTAL BARIUM	TOTAL BERYLLIUM	TOTAL CADMIUM	TOTAL CALCIUM
SD-01	7,640	9.40	57	1.10	2.70	2,290
SD-02	6,210	6.70	53	1.00	2.10	1,630
SD-03	7,300	-	62	0.75	-	6,190
SD-04	5,250	6.30	213	1.30	-	41,300
SD-05	5,740	20.00	284	1.70	-	1,250
SD-07	7,100	22.00	409	1.20	-	1,220
SD-08	9,010	6.40	37	0.85	-	438
SD-09	7,410	13.00	200	0.77	-	325
SD-10	5,000	17.00	290	-	-	525
SD-12	5,590	54.00	605	0.84	4.20	11,300
SD-13	8,170	6.10	58	1.50	-	1,710

SAMPLE NUMBER	TOTAL COBALT	TOTAL COPPER	TOTAL CHROMIUM	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
SD-01	7	41	34	15,400	92	900
SD-02	11	23	19	10,200	35	1,050
SD-03	7	30	26	10,300	76	1,100
SD-04	6	163	117	15,300	347	14,100
SD-05	18	266	38	15,500	241	602
SD-07	31	282	45	13,800	436	560
SD-08	3	17	23	24,200	22	500
SD-09	8	149	20	8,900	109	600
SD-10	6	235	35	7,450	249	349
SD-12	7	80	99	17,100	1,930	1,880
SD-13	28	47	26	14,400	66	765

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL MERCURY	TOTAL NICKEL	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
SD-01	99	-	20	-	114	43	173
SD-02	348	-	17	2	85	25	53
SD-03	318	-	13	-	174	28	86
SD-04	402	-	44	3	655	29	1,120
SD-05	774	-	27	2	67	58	124
SD-07	1,430	-	31	2	67	57	142
SD-08	55	-	7	-	70	45	69
SD-09	498	-	13	-	63	26	48
SD-10	221	-	9	2	63	51	62
SD-12	464	-	45	-	103	58	1,440
SD-13	864	-	33	3	54	31	138

AR300902

SUMMARY OF CONCENTRATIONS OF INORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (MG/KG)

-----SAMPLE MEDIA=SURFACE_SOIL-----

SAMPLE NUMBER	TOTAL ALUMINUM	TOTAL ARSENIC	TOTAL BARIUM	TOTAL BERYLLIUM	TOTAL CADMIUM	TOTAL CALCIUM
SD-14	9,340	15.00	522	1.60	2.50	17,900
SD-15	17,600	9.70	82	0.82	-	2,780
SD-16	16,900	9.20	46	0.82	-	1,560
SD-17	12,600	-	40	0.73	-	1,450
SD-18	7,260	-	60	0.33	-	6,310
SS-01	7,940	2.90	54	2.50	-	1,400
SS-02	4,960	4.80	-	-	-	-
SS-03	7,330	6.90	33	-	-	-
SS-04	21,300	4.50	-	-	-	-
SS-05	20,300	4.60	-	-	-	-

SAMPLE NUMBER	TOTAL COBALT	TOTAL COPPER	TOTAL CHROMIUM	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
SD-14	18	332	1,060	43,400	852	2,980
SD-15	5	48	84	23,600	136	1,220
SD-16	5	16	32	21,700	40	1,070
SD-17	3	11	25	19,300	23	910
SD-18	5	28	19	9,920	73	1,140
SS-01	21	41	42	40,200	34	753
SS-02	-	50	17	10,306	124	252
SS-03	-	134	21	11,300	153	592
SS-04	-	-	31	24,100	8	746
SS-05	-	13	32	25,200	16	1,030

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL MERCURY	TOTAL NICKEL	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
SD-14	720	-	367	2	245	119	1,690
SD-15	107	-	55	-	68	48	138
SD-16	66	-	13	2	66	42	50
SD-17	61	-	7	-	76	34	35
SD-18	299	-	12	-	115	26	100
SS-01	161	-	51	-	-	86	147
SS-02	51	-	-	-	-	22	19
SS-03	225	0.2	19	-	-	30	414
SS-04	44	0.1	19	-	-	47	40
SS-05	69	-	-	-	-	46	-

18 AR300903

SUMMARY OF CONCENTRATIONS OF INORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (MG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	TOTAL ALUMINUM	TOTAL ARSENIC	TOTAL BARIUM	TOTAL BERYLLIUM	TOTAL CADMIUM	TOTAL CALCIUM
TP-A	3,210	0.96	-	81.00	-	269
TP-B	13,300	9.30	194	1.40	4.20	50,700
TP-C	6,330	56.00	243	0.97	2.70	32,400
TP-D	7,490	-	69	0.67	2.60	15,000
TP-E	3,250	-	67	0.65	2.90	6,010
TP-F	7,780	8.30	126	-	7.00	3,190
TP-G	10,400	3.00	178	1.40	10	6,190
TP-H	12,500	9.30	159	-	3.10	11,000
TP-I	1,720	-	16	1.10	-	221,000
TP-J	11,400	-	156	-	-	1,870
TP-K	7,270	6.90	344	1.40	4.50	8,220

SAMPLE NUMBER	TOTAL COBALT	TOTAL COPPER	TOTAL CHROMIUM	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
TP-A	16	169	20	14,600	107	448
TP-B	27	851	1,990	47,700	1,140	2,300
TP-C	12	1,400	153	28,900	569	1,520
TP-D	11	95	137	25,600	96	1,020
TP-E	8	136	24	15,600	141	669
TP-F	8	103	95	23,500	396	527
TP-G	11	73	101	30,500	232	1,360
TP-H	9	100	93	23,900	312	1,260
TP-I	2	14	4	2,600	45	4,200
TP-J	11	44	34	27,500	401	619
TP-K	22	134	476	36,000	5,010	1,051

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL MERCURY	TOTAL NICKEL	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
TP-A	559	-	16	-	19	34	77
TP-B	490	0.4	1,670	-	280	64	532
TP-C	289	0.9	207	17	113	413	302
TP-D	285	-	173	-	101	25	71
TP-E	96	0.2	12	-	59	31	241
TP-F	135	0.2	75	-	263	48	466
TP-G	133	0.6	83	2	81	79	939
TP-H	257	1.4	150	-	127	62	479
TP-I	86	-	140	-	273	3.8	99
TP-J	330	-	17	-	40	44	145
TP-K	303	-	90	-	69	62	1,440

AR300904

SUMMARY OF CONCENTRATIONS OF INORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (MG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	TOTAL ALUMINUM	TOTAL ARSENIC	TOTAL BARIUM	TOTAL BERYLLIUM	TOTAL CADMIUM	TOTAL CALCIUM
TP-L	3,950	11.00	262	0.64	-	9,360
TP-M0	6,400	20.00	268	1.30	5.00	27,700
TP-M1	6,230	166.00	294	2.00	-	3,660
TP-M2	9,380	10.00	269	1.50	-	41,200
TP-M3	3,420	32.00	350	1.70	4.40	53,800
TP-N0	11,300	23.00	302	2.20	-	18,800
TP-N1	7,280	6.30	45	2.10	3.50	152
TP-O	9,000	-	86	0.87	-	1,220
TP-P	10,100	21.00	794	-	89	28,000
TP-Q	10,300	21.00	6,370	1.40	10	25,900
TP-R0	7,030	62.00	1,670	1.20	19	146,000

SAMPLE NUMBER	TOTAL COBALT	TOTAL COPPER	TOTAL CHROMIUM	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
TP-L	8	88	220	12,100	1,040	996
TP-M0	16	181	324	31,400	583	2,170
TP-M1	11	33	19	23,700	23	697
TP-M2	18	1,140	1,190	117,000	244	6,810
TP-M3	50	409	277	83,500	549	2,220
TP-N0	8	124	88	27,300	482	1,690
TP-N1	16	15	37	60,700	18	519
TP-O	40	50	16	17,000	26	597
TP-P	18	781	85	53,300	2,710	2,140
TP-Q	20	189	1,340	39,500	530	2,140
TP-R0	24	76	101	65,800	503	3,810

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL MERCURY	TOTAL NICKEL	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
TP-L	133	0.3	268	-	305	30	189
TP-M0	701	1.2	1,060	-	256	109	10300
TP-M1	44	0.3	32	-	826	89	1,480
TP-M2	762	0.3	1,280	-	2,450	40	532
TP-M3	669	0.4	225	-	2,020	55	825
TP-N0	103	0.3	77	-	190	78	522
TP-N1	132	-	33	-	140	71	65
TP-O	242	0.2	24	-	148	31	65
TP-P	534	1.1	72	5	3,230	28	2,420
TP-Q	361	0.2	652	-	915	79	AR300905
TP-R0	1,140	0.3	68	-	933	36	1,020

AR300905

SUMMARY OF CONCENTRATIONS OF INORGANIC COMPOUNDS
IN SURFACE AND SUBSURFACE SOILS (MG/KG)

-----SAMPLE MEDIA=TEST_PIT_SOIL-----

SAMPLE NUMBER	TOTAL ALUMINUM	TOTAL ARSENIC	TOTAL BARIUM	TOTAL BERYLLIUM	TOTAL CADMIUM	TOTAL CALCIUM
TP-R1	14,700	-	638	-	4.10	56,500
TP-S	12,000	7.30	86	1.20	-	10,600
TP-T	11,000	46.00	307	0.98	5.80	12,100
TP-U	4,110	-	50	1.10	-	1,860
TP-V	5,670	10.40	1,140	-	-	36,500
TP-W	8,170	10.60	2,510	-	-	19,500
TP-X	8,150	1.10	31	0.90	-	218
TP-Y	14,500	5.20	52	0.90	-	430

SAMPLE NUMBER	TOTAL COBALT	TOTAL COPPER	TOTAL CHROMIUM	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
TP-R1	7	333	76	23,400	13,600	2,470
TP-S	34	39	45	30,200	194	1,590
TP-T	6	142	79	22,200	472	956
TP-U	9	30	16	24,300	8	253
TP-V	3	137	66	89,900	1,130	2,020
TP-W	59	1,790	-	72,400	1,940	2,420
TP-X	-	13	24	25,500	7	664
TP-Y	6	16	25	22,900	14	1,050

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL MERCURY	TOTAL NICKEL	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
TP-R1	269	-	54	-	339	155	1,790
TP-S	336	-	47	-	131	37	319
TP-T	167	1.6	136	-	198	348	709
TP-U	144	-	19	-	88	33	39
TP-V	398	1.2	63	-	620	40	1,820
TP-W	1,220	0.6	4,530	-	362	38	1,710
TP-X	34	-	9	-	227	44	36
TP-Y	130	-	12	-	229	39	53

AR300906

APPENDIX I
DATA VALIDATION RESULTS

AR300907



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-822-3752

DATE: 29 October 1986
SUBJECT: Region III CLP Data QA Review
FROM: Patricia J. Krantz (3ES20) *PK*
DPO, Region III
TO: Duane A. Geuder, QAO (WH-548A)
OERR

Attached is a Region III CLP Data Review done by reviewers at
Roy F. Weston, Inc.:

Case No.: 6040 (Inorganic)
(Revision A, 10-28-86) Site: Kane & Lombard

Laboratory: Versar Reviewer: *Aurine S. Therry*
Dianne S. Therry

Attachment

cc: Gareth Pearson, EMSL-LV

Regional DPO: Pat Krantz, Region III

 Action X FYI

AR300908



USEPA - Region III
Inorganic QA Data Review
Page 1 of 4
Revision A, 10-28-86

Case #/Site I.D.: 6040/Kane & Lombard
Sample Numbers: MCG431-MCG447, MCG449-MCG459

Site Manager: Charles Kufs

Data Review Team: Dianne Therry, Nancy Myers *stat* *new*

Review Completed: July 29, 1986

Introduction

The set of samples for Case 6040 contained twelve water samples and sixteen soil samples which were analyzed through the Contract Laboratory Program Routine Analytical Services by one laboratory.

This data was reviewed according to the National Functional Guidelines for Evaluating Inorganic Analyses. All data has been validated with regard to usability. The methods used by the Contract Lab Program (CLP) must be evaluated by each individual user as to whether the scope, precision and accuracy meet the needs of the project.

The laboratory performed the analyses in compliance with CLP, including the required quality control. Holding times were met for all samples. All calibration criteria were met. Some lab contamination was evidenced for chromium, calcium, magnesium, sodium, aluminum, iron, and zinc; however, the most significant problems affecting usability are associated with the sample matrix. Problems associated with data usability are discussed in the following section. The data summary has been annotated with the appropriate qualifier code.

QUALIFIERS:

Water Samples

1. The following results have been designated as qualitatively questionable (J) due to blank contamination. Laboratory blank analyses revealed the presence of the following metals at concentrations significant enough to question the reported results:

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<u>Analyte</u>	<u>Samples Affected</u>
Aluminum	MCG449-MCG453, MCG456, MCG458, MCG459
Calcium	MCG451-MCG453
Iron	MCG450-MCG453
Magnesium	MCG451-MCG453
Sodium	MCG451-MCG453
Zinc	MCG447, MCG449, MCG451-MCG453, MCG455, MCG457

2. Due to low matrix spike recovery for potassium (72%), silver (30%), lead (31%), and selenium (53%), reported results and detection limits may be biased low, and have been qualified as estimated (J or UJ) in the following samples. Actual values may be higher than reported.

<u>Analyte</u>	<u>Bias</u>	<u>Samples Affected</u>
Potassium	8-48%	All Samples
Silver	50-90%	All Samples
Lead	49-89%	All Samples
Selenium	27-67%	All Samples

3. Water results for barium, calcium, cobalt, iron, magnesium, nickel, potassium, sodium, and zinc have been qualified as quantitatively questionable (J) due to possible chemical or physical interference. Results for diluted sample analysis for these analytes do not agree within 10%.

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Soil Samples

1. The following results have been designated as qualitatively questionable (J) due to blank contamination. Laboratory blank analyses revealed the presence of the following metals at concentrations significant enough to question the reported results.

<u>Analyte</u>	<u>Samples Affected</u>
Chromium	MCG432, MG433, MCG437, MCG438, MCG441, MCF445, MCG446
Zinc	MCG445
Calcium	MCG431, MCG432, MCG435-MCG441, MCG443-MCG446
Sodium	All Soil Samples

2. Due to low matrix spike recovery for chromium (45%), reported results and detection limits for all soil samples may be biased low, and have been qualified as estimated (J). Actual results may be 35-75% higher than reported.
3. Due to high matrix spike recovery for selenium (142%) and mercury (139%), results for the following samples have been qualified as estimated (J). Actual results may be lower than reported.

<u>Analyte</u>	<u>Bias</u>	<u>Samples Affected</u>
Selenium	22-62%	MCG435, MCG436
Mercury	19-59%	MCG431, MCG432, MCG433, MCG434, MCG435, MCG436, MCG438, MCG439, MCG440, MCG441, MCG442, MCG443, MCG446

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4. Results for cadmium, calcium, magnesium, and zinc have been qualified as quantitatively questionable (J) due to possible chemical or physical interference. Results for diluted sample analysis for these analytes do not agree within 10%.

Summary

Metals and cyanide for all samples were successfully analyzed. Areas of concern with respect to data usability include:

- o Laboratory contamination in water samples for aluminum, calcium, iron, magnesium, sodium, and zinc; and contamination in soil samples for chromium, zinc, calcium, and sodium.
- o Possible matrix interference indicated by results from matrix spike recoveries and ICP serial dilutions.

The text of this report has been formatted to address only those problem areas which affect the applications of the data to the site investigation. Documentation of these problems and any other observed areas of laboratory contractual noncompliance are included in a separate report sent to the laboratory's CLP Project Officer. If you have questions or comments on this data review, please contact Dianne Therry.

Enclosures

AR300912

DATA SUMMARY

Case No. 6040
 Laboratory Versar Inc.

Matrix Soil Units mg/kg

EPA TR #	MCG431	MCG432	MCG433	MCG434	MCG435	MCG436	MCG437	MCG438	MCG439	MCG440	MCG441	MCG442	COMMENTS
LabID.	5086	5087	5088	5089	5090	5091	5092	5093	5094	5095	5096	5097	
Aluminum	7640	6210	7300	8250	8740	7100	9010	7410	5080	5890	8170	9340	
Antimony													
Arsenic	94	6.7		6.3	20	22	6.4	13	17	54	6.1	15	
Barium	[57]	[53]	[62]	313	284	409	[37]	200	290	605	[58]	522	
Beryllium	[1.1]	[60]	[0.75]	[1.3]	[1.7]	[1.2]	[0.87]	[0.77]		[0.84]	[1.5]	[1.6]	
Cadmium										46.2		[2.8]	Soil dil.
Calcium	[220]	[168]	6190	41300	[250]	[1220]	[438]	[315]	[525]	11300	[1710]	17900	Soil dil. 7%K
Chromium	34	19	26	117	38	45	23	20	35	99	26	1060	Soil dil. 7%K
Cobalt	[6.9]	[11]	[7.1]	[6.4]	[18]	31	[2.8]	[7.9]	[5.9]	[6.8]	28	[18]	Soil dil. 7%K
Copper	41	23	30	168	266	282	17	149	235	80	47	332	
Iron	15400	10200	10300	15300	15500	13800	24200	8900	7450	17100	14400	43400	
Lead	92	35	76	347	241	436	22	109	249	1830	66	852	
Magnesium	[90]	[105]	[1100]	14100	[602]	[560]	[500]	[600]	[340]	[1980]	[765]	2980	Soil dil. 7%K
Manganese	99	348	318	462	774	1430	55	498	221	464	864	720	
Mercury	0.17	0.10	0.15	1.5	0.36	0.38		0.14	0.26	0.46	0.14	0.37	Soil recovery
Nickel	[20]	[17]	[13]	44	27	31	[7.1]	[13]	[9.0]	45	33	367	
Potassium	[813]	[1070]	[1310]	[1720]	[400]	[385]	[810]	[748]	[340]	[491]	[711]	[1400]	
Selenium					3.3	4.2							Soil recovery
Silver		[1.6]		[2.6]	[3.2]	[1.8]			[2.2]		[2.5]	[2.2]	
Sodium	[114]	[95]	[174]	[655]	[67]	[67]	[70]	[63]	[63]	[103]	[54]	[245]	prop blk
Thallium													
Tin				43	[13]	[11]				41		52	
Vanadium	43	[25]	28	29	58	57	45	[26]	51	58	31	119	
Zinc	173	53	86	1120	124	142	69	48	62	1440	138	1690	Soil dil. 7%K
Cyanide				6.94	0.98	0.73				5.38		13.9	
% Solids	74.81	96.93	96.27	95.39	90.05	84.71	85.86	90.19	83.60	85.12	90.91	91.50	

R300913

D SUMMARY

Case No. 6040 Laboratory Verstar Inc. Matrix Soil Units mg/kg

EPA TR #	NCG 443	ALCO 444	MCE 465	MCE 446	Detec- Limit	CRDL	Labatory Det.	COMMENTS
Lab.I.D.	5098	5099	5100	5101		Limit		
Aluminum	17600	16900	12600	7260	40	8.0		
Antimony					12	2.4		
Arsenic	9.7	9.2			2.0	0.4		
Barium	[82]	[46]	[40]	[60]	40	8.0		
Beryllium	[0.82]	[0.82]	[0.73]	[0.83]	1.0	0.2		
Cadmium					1.0	0.2		
Calcium	2780	[1560]	[1450]	6310	1000	200		prep b1k, dil.
Chromium	84	32	25	19	2.0	0.4		prep b1k, dil.
Cobalt	[5.2]	[4.9]	[2.9]	[5.3]	10.0	2.0		
Copper	48	16	[11]	28	5.0	1.0		
Iron	23600	21700	19300	9920	20.0	4.0		
Lead	156	40	23	73	1.0	0.2		
Magnesium	[120]	[1070]	[910]	[1140]	1000	200		prep b1k, dil.
Manganese	107	66	61	299	3.0	0.6		
Mercury	0.28			0.28	0.04	0.008		matrix spike
Nickel	55	[13]	[6.6]	[12]	8.0	1.6		
Potassium	[751]	[657]	[833]	[975]	1000	200		
Selenium					1.0	0.2		matrix spike
Silver		[1.7]			2.0	0.4		
Sodium	[68]	[66]	[76]	[115]	1000	200		prep b1k.
Thallium					2.0	0.4		
Tin					8	1.6		
Vanadium	48	42	34	[26]	10	2.0		
Zinc	138	50	35	100	4	0.8		prep b1k, dil.
Cyanide	1.02							
% Solids	93.15	87.72	86.75	97.90				

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DATA SUMMARY

Case No. 6040
 Laboratory Version Inc.

Matrix water Units ug/l

EPA TR #	MCE 447	MCE 449	MCE 450	MCE 451	MCE 452	MCE 453	MCE 454	MCE 455	MCE 456	MCE 457	MCE 458	COMMENTS
Lab ID.	5102	5232	5233	5234	5235	5236	5237	5238	5239	5240	5241	
Aluminum	[38] J	[124] J	[124] J	[39] J	[29] J	[29] J	868	1010	[145] J	1010	[129] J	prep b/k
Antimony												
Arsenic												
Barium	[122] J	[27] J	[27] J	[13] J			[32] J	[32] J	[54] J	[27] J	[49] J	anal d/c
Beryllium			[1.1]									
Cadmium	9.8											
Calcium	447000	177000	177000	[94] J	[97] J	[79] J	298000	301000	436000	266000	766000	prep b/k
Chromium	[6.5]	[6.3]	[6.3]	[5.5]	[4.7] J	[7.3]	[6.2]	[8.1]	10	[6.2]	[7.1]	
Cobalt		[4.7] J							[5.8] J		[5.6] J	
Copper	[4.9]	[18]			[5.5]		[6.2]	[5.5]	[8.9]	[6.8] J	[7.0]	
Iron	114 J	[94] J	[94] J	[34] J	[25] J	[22] J	438 J	352 J	1700 J	176 J	2680 J	
Lead	VS	VS	VS	VS	VS	VS	VS	VS	12 J	VS	6.2 J	
Magnesium	77100 J	55400 J	[45] J	[44] J	[26] J	6720 J	10100 J	5940 J	14800 J			prep b/k
Manganese	1620	6540				89	792	29	541			anal d/c
Mercury												
Nickel		115 J										
Potassium	VS	VS	VS	VS	VS	VS	[330] J	[340] J	6330 J	[209] J	[490] J	matrix spike
Selenium	VS	VS	VS	VS	VS	VS	VS	VS	VS	VS	VS	matrix
Silver	VS	VS	VS	[3.1] J	[3.5] J	VS	[4.4] J	VS	VS	[3.3] J		matrix spike
Sodium	107000	128000	[249] J	[208] J	[210] J	20700 J	20400 J	42800 J	15900 J	35800 J		prep b/k
Thallium												
Tin												
Vanadium	[5.7]					[2.0]	[3.4] J	[2.7]	[2.4] J	[2.7]		
Zinc	28 J	[11] J	1100 J	[13.1] J	[8.7] J	[9.3] J	46 J	[17] J	42 J	[19] J	[60] J	prep b/k
Cyanide												
% Solids												

AR300915

DATA SUMMARY

Case No. 6040
Laboratory Versar Inc.

Matrix Water Units ug/l

EPA TR #	Lab ID.	Method	Detect. Limit	CRDL	Laboratory Detect. Limit	Matrix	Units	Comments
Aluminum	5242	[19] J	200	17				prep. BIK
Antimony			60	25				
Arsenic			10	4				
Barium		[49] J	200	1				serial dil.
Beryllium			500	1				
Cadmium			5.0	4				
Calcium		74800	5000	4				serial dilution
Chromium		[5.5]	10	4				serial dilution
Cobalt		[3.6] J	50	3				
Copper		[19]	25	3				serial dilution
Iron		2600 J	100	3				matrix spike
Lead		11 J	5	2				serial dil.
Magnesium		14400 J	5000	1				
Manganese		537	15	1				
Mercury			0.2	0.2				
Nickel		46 J	40	8				serial dilution
Potassium		5040 J	500	300				matrix spike
Selenium		UJ	5	2				matrix spike
Silver		UJ	10	3				serial dilution
Sodium		36600 J	5000	22				
Thallium			10	5				
Tin			40	17				
Vanadium		[3.7]	50	2				
Zinc		160 J	20	2				serial dilution
Cyanide			10	—				
% Solids								

AR300916

Date Review Completed 7-29-86
 Case No. 6040 SAS No. _____
 Site Name Kane + Lombard
 Sample Nos. MC6449- MC6459 (H₂O)

Contract Lab Versar
 Contract No. _____
 Lab DPO Pat Krantz
 Reviewer N. M. SRS
 from Region III Phone _____
 FTS _____

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid				
aqueous	//			
other				

ICP	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks		1✓		Ca [5.8/16/20.3] Co [5.4/14.2/14.8] Mg [11] Ag [3]
Initial Calibration	✓			Na [34]
Continuing Calibration	✓			V [2.4] I:
Preparation Blank		1✓		Al [44/129.1, Ba [11], Ca [70], Fe [18], Mg [24], Ni
Interference Check Sample	✓			Zn [8.5]
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		2✓		K 72% Ag 30%
Serial Dilution		3✓		Ba 17, 12, Ca 89, Co 20, Fe 19, 27, Zn 201 Mg 23, 18, 17, Ni 29, 17, K 33, 33, 31, Na 21, 17

FURNACE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		2✓		Pb 31% Se 53%
Duplicate Injections	✓			
Analytical Spike	✓			

MERCURY & CYANIDE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blank	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Duplicate	✓			
Matrix Spike	✓			

REVIEWER'S COMMENTS: 1. values above the IDC, but below the
 EROD - No Action Required.
 2. outside the $\pm 25\%$ limit - No action Required.
 3. outside the $\pm 10\%$ limit - No action required.

* saw stated on cover page does not agree with AR300917
 on package.

Date Review Completed 7-29-86
 Case No. 6040 SAS No. _____
 Site Name Kane + Lombard
 Sample Nos. mcg 431 - mcg 447

Contract Lab Versar
 Contract No. _____
 Lab DPO Pat. Krantz (III)
 Reviewer Nancy Myers
 from Region III Phone _____
 FTS _____

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid	17			
aqueous				
other				

ICP	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks		1✓		Ca [4.9] Fe [7] Li [1] K [636]
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank		1✓		Al [44] Ca [70] Cr [5.8] Fe [18] Mg [24] Zn [8.5]
Interference Check Sample	✓			Na [1050]
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		✓2		Cr 45%
Serial Dilution		3✓		Cl 657, Ca 14, Mg 31, Zn 102

FURNACE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks		1✓		Pb [4.8]
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		2✓		Se 142%
Duplicate Injections	✓			
Analytical Spike	✓			

MERCURY & CYANIDE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blank	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Duplicate	✓			
Matrix Spike		2✓		Hg 139%

REVIEWER'S COMMENTS: 1. values above IDL, but below CSDL.

- No action required.

2. value outside the $\pm 25\%$ limit. - No action Required.

3. value outside the 10% difference limit -
 No action required.

* Sow stated on cover page does not agree with Sow
 used on package.

AR300918



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTB-822-3782

DATE: 19 January 1987
SUBJECT: Region III CLP Data QA Review
FROM: Patricia J. Krantz (3ES20) *mk*
DPO, Region III
TO: Duane A. Geuder, QAO (WH-548A)
OERR

Attached is a Region III CLP Data Review done by reviewers at
Roy F. Weston, Inc.:

Case No.: 6040 (Organic)
(Revision B, 1/87) Site: Kane & Lombard
Laboratory: IT
CAL Reviewer: *Dianne S. Therry*
Dianne S. Therry

Attachment

cc: Gareth Pearson, EMSL-LV

Regional DPO: Kent Kitchingman, Region IX

X Action FYI

AR300919

4183-11-1E



Case #/Site I.D.: 6040/Kane and Lombard
Sample Numbers: CE801-CE829

Site Manager: Charles Kufs

Data Review: Dianne S. Therry *DS*
Review Completed: October 10, 1986

Introduction

The set of samples for Case #6040 contained 16 soil samples and 13 water samples which were analyzed through the Contract Laboratory Program (CLP) routine analytical services by two laboratories. The sample set included two trip blanks and three field blanks.

These data were reviewed according to the National Functional Guidelines for Evaluating Organic Analyses. All data have been validated with regard to usability. The method used by the CLP must be evaluated by each individual user as to whether the scope, precision, and accuracy meet the needs of the project.

The laboratory performed the analyses in compliance with CLP, including the required quality control, except for water base/neutral/acid extractables, for which all detection limits are twice the contract required limits. Holding times were met for all samples for the VOA, BNA and pesticide fractions. Instrument tune and calibration were within specifications except for poor instrument response to vinyl acetate, bromoform, benzoic acid, 2-chloroethylvinylether, 3,3'-dichlorobenzidine and 3-nitroaniline (which precludes obtaining useable data for these compounds) and a few other minor deviations which did not affect usability. Aside from this, laboratory contamination from solvents and plasticizers was the most significant problem in this data set. Problems associated with data usability are discussed in the following section.

QUALIFIERS: Soil Samples (S) CE801-CE818

- S1) The laboratory blanks and field blanks contained methylene chloride, acetone, 2-butanone, 1,1,1-trichloroethane, di-n-butylphthalate and bis(2-ethylhexyl)phthalate at concentrations significant enough to question the reported results. All reported values in the following samples were qualified as not detected (U) and the sample quantification limit was qualified as estimated (J).

AR300920

Compound

methylene chloride
acetone
2-butanone
1,1,1-trichloroethane
di-N-butylphthalate
bis(2-ethylhexyl)phthalate

Samples Affected

all samples
all samples
all samples
CE810, CE811
all samples
all samples except
CE801, CE804, CE810
CE812 and CE816

Trip blank/field blank samples CE817 and CE818 were analyzed as soils by the laboratory, i.e. 1-30 g sample aliquots were weighed out and prepared/analyzed as a soil. Using this procedure, these blanks are more representative of a laboratory method blank analysis, and give little input regarding possible field-related contamination.

- S2) The response factors during initial and/or continuing calibration for up to eight VOA compounds and 14 BNA compounds were variable. The sample results and detection limits have been qualified as estimated (J or UJ) for the affected compounds in the data summary.
- S3) The response factors were very low (<0.05) for vinyl acetate, bromoform, and benzoic acid in some of the calibration standards and extremely low (<0.005) for 2-chloroethylvinylether and 3,3'-dichlorobenzidine in all of the calibration standards. The sample results have been qualified as unusable (R) for the affected compounds in the data summary.

Compound

Fraction

Samples Affected

vinyl acetate	VOA	CE801, CE803, CE805 CE807, CE809-CE811
bromodichloromethane	VOA	CE801, CE803, CE805, CE807
2-chloroethylvinylether	VOA	all samples
benzoic acid	BNA	CE815-CE818
3,3'-dichlorobenzidine	BNA	all samples

Failure to detect a compound under this condition does not confirm its absence in the samples. If these compounds are critical to this site, follow-up analysis may be necessary.

- S4) The reported results for benzo(b)fluoranthene in all samples may be either this compound and/or benzo(k)fluoranthene.

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Examination of raw data revealed that the laboratory could not separate these compounds (both compounds exhibited similar retention times and mass spectra). The data summary has been altered to reflect these findings.

- S5) Due to poor recovery for all three acid surrogates on initial analysis, sample CE820 was re-extracted/re-analyzed 28 days beyond the recommended 40CFR holding time, with one of three surrogates outside lower QC limits on re-analysis. Detection limits for acid compounds in this sample have been raised to 40 ug/L to account for smaller volume of sample used during re-extraction, and qualified as estimated (UJ) due to a combination of low surrogate recovery (indicating possible matrix interference) and analysis past the recommended holding time. Actual detection limits are expected to be higher, however, acid compounds are probably not present in large quantities.

Pesticide Fraction

- S6) The laboratory did not report endosulfan sulfate in any of the samples. However, contractual requirements for identification of endosulfan sulfate were met in five samples. Examination of respective chromatograms and relative retention times with respect to dibutylchlorendate exhibited good matching quality with those of the standards. Estimated concentration values for this compound in affected samples have been provided and incorporated into the data summary. The values are as follows:

<u>Sample</u>	<u>Concentration (dry weight)</u>
CE803	48 ug/kg
CE804	150 ug/kg
CE805	88 ug/kg
CE806	48 ug/kg
CE810	260 ug/kg

- S7) The 4,4'-DDT breakdown result exceeded the required threshold value for accurate quantification. Consequently, the reported result for this compound in samples CE805 and CE810 has been qualified as estimated (J) in the data summary.
- S8) The presence of Aroclor 1248 in sample CE813 and Aroclor 1254 in samples CE812 and CE813 has been confidently confirmed by GC/MS. Other reported pesticides (dieldrin, endosulfan sulfate, DDT and chlordane) are not present at

AR300922

high enough concentrations to verify by GC/MS, however, two column GC confirmation gives strong evidence of their potential presence. Look for supporting site evidence to reinforce the possible presence of these five pesticides, or, if confident identification of these pesticides is critical to this site, follow-up analysis using more sensitive methods may be necessary.

QUALIFIERS: Water Samples (W) CE819-CE829

- W1) The laboratory blanks and field blanks contained methylene chloride, acetone, and toluene at concentrations significant enough to question the reported results. All reported values for these compounds have been qualified as not detected (U) and the sample quantitation limit was qualified as estimated (J) in the data summary.
- W2) The response factors for initial and/or continuing calibration for up to ten VOA compounds and four BNA compounds were variable. The sample results and detection limits have been qualified as estimated (J or UJ) for the affected compounds in the data summary.
- W3) The response factor was very low (<0.05) for 3-nitroaniline in the calibration standard for samples CE823-CE829. The sample results for this compound have been qualified as unusable (R) in the data summary. Failure to detect 3-nitroaniline under this condition does not confirm its absence in the samples. If this compound is critical to this site, follow-up analysis may be necessary.
- W4) The laboratory was unable to meet contract required detection limits (CRDL) for base/neutral/acid extractables analysis. Reported quantitation values are all two times higher than the CRDL.

SUMMARY

All fractions of all samples were successfully analyzed. Areas that affected the usability of the data include:

- o laboratory contamination
- o failure to meet the CRDL for BNA water analysis
- o poor separation of isomers

AR300923



- o poor instrument response to three VOA and three BNA compounds leading to possible false negatives
- o failure to report endosulfan sulfate in five samples
- o possible matrix affects for acid compounds in sample CE820

The text of this report has been formatted to address only those problem areas which affect the application of the data to the site investigation. Documentation of these problems and any other observed areas of laboratory contractual noncompliance are included in a separate report sent to the laboratory's CLP Project Officer. If you have questions or comments on this data review, please call me.

Enclosures

AR300924

Glossary: Qualifier Codes

The data summary contains the following qualifier codes:

- U - The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
- J - The associated numerical value is an estimated quantity because quality control criteria were not met.
- R - Quality control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.

AR300925

CASE #/SITE ID: 6046/Kene - Lombard

DATE SAMPLED:	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86
DATE SAMPLE RECD:	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86
DATE EXTR/REP'D:	6-13-86	6-12-86	6-13-86	6-13-86	6-13-86	6-13-86	6-13-86
DATE ANALYZED:	6-13-86	6-12-86	6-13-86	6-13-86	6-13-86	6-13-86	6-13-86
CONC/DIL FACTOR:	1 pH 6.3	1 pH 6.3	1 pH: 7.1	1 pH: 7.5	1 pH: 6.9	1 pH: 7.0	1 pH: 7.1
% MOISTURE:	27	4.0	3	6.0	9	13	15
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg

SAMPLE DESCRIPT.:		TRAFFIC REPORT #:						
CAS Number		CE 801	CE 802	CE 803	CE 804	CE 805	CE 806	CE 807
74-87-3	Chloromethane	UJ		UJ	UJ	UJ	UJ	UJ
74-83-9	Bromomethane							
75-01-4	Vinyl Chloride							
75-00-3	Chloroethane				UJ		UJ	
75-08-2	Methylene Chloride	84 UJ	9 UJ	38 UJ	3 UJ	6 UJ	5 UJ	6 UJ
67-64-1	Acetone	14 UJ	8 UJ	78 UJ	11 UJ	14 UJ	11 UJ	12 UJ
75-15-0	Carbon Disulfide		UJ	2 J	UJ		UJ	
75-35-4	1, 1-Dichloroethane							
75-34-3	1, 1-Dichloroethane							
156-80-5	Trans-1, 2-Dichloroethane							
67-66-3	Chloroform						1 J	
107-08-2	1, 2-Dichloroethane							
78-83-3	2-Butanone	15 UJ	7 UJ	10 UJ	12 UJ	11 UJ	9 UJ	9 UJ
71-55-6	1, 1, 1-Trichloroethane							
56-23-5	Carbon Tetrachloride							
108-05-4	Vinyl Acetate	R	UJ	R	UJ	R	UJ	R
75-27-4	Bromodichloromethane	R		R		R		R
78-87-6	1, 2-Dichloropropane							
10061-02-8	Trans-1, 3-Dichloropropene							
79-01-6	Trichloroethane							
124-48-1	Dibromochloromethane							
78-00-5	1, 1, 2-Trichloroethane							
71-43-2	Benzene							
10061-01-5	cis-1, 3-Dichloropropene							
110-75-8	2-Chloroethylvinylether	R	R	R	R	R	R	R
75-25-2	Bromoform				UJ		UJ	
591-78-6	4-Methyl-2-Pentanone							
108-10-1	2-Hexanone			3 J				
127-18-4	Tetrachloroethane							
79-34-5	1, 1, 2, 2-Tetrachloroethane							
108-88-3	Toluene			43			5	
108-90-7	Chlorobenzene							
100-41-4	Ethylbenzene							
100-42-5	Styrene							
	Total Xylenes			6				

AR300926

CASE #/SITE ID: 6040 / Kane - Lombard

DATE SAMPLED:	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86
DATE SAMPLE RECD:	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86
DATE EXTR/PREP'D:	6-13-86	6-15-86	6-15-86	6-15-86	6-15-86	6-15-86	6-15-86
DATE ANALYZED:	6-13-86	6-15-86	6-15-86	6-15-86	6-15-86	6-15-86	6-15-86
CONC/DIL FACTOR:	1 pH: 5.1	1 pH: 4.3	1 pH: 7.5	1 pH: 7.3	1 pH: 7.7	1 pH: 7.0	1 pH: 7
% MOISTURE:	11	17	16	12	8.0	7.2	15
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg

GAS		SAMPLE DESCRIPT.:		TRAFFIC REPORT #:		CE 808		CE 809		CE 810		CE 811		CE 812		CE 813		CE 814	
Number																			
74-87-3	Chloromethane					UJ		UJ		UJ		UJ		UJ		UJ		UJ	
74-83-8	Bromomethane																		
78-01-4	Vinyl Chloride																		
78-00-3	Chloroethane					UJ								UJ		UJ		UJ	
78-08-2	Methylene Chloride					120 UJ		120 UJ		240 UJ		16 UJ		200 UJ		84 UJ		55 UJ	
87-84-1	Acetone					12 UJ		17 UJ		15 UJ		13 UJ		7 UJ		12 UJ		8 UJ	
78-18-0	Carbon Disulfide					2 J								3 J		UJ		UJ	
78-38-4	1, 1-Dichloroethane																		
78-34-3	1, 1-Dichloroethane													UJ		UJ		UJ	
188-80-8	Trans-1, 2-Dichloroethane																		
87-88-3	Chloroform																		
107-08-2	1, 2-Dichloroethane																		
78-93-3	2-Butanone					9 UJ		17 UJ		13 UJ		14 UJ		7 UJ		10 UJ		11 UJ	
71-88-8	1, 1, 1-Trichloroethane							13		5 UJ		4 UJ							
88-23-8	Carbon Tetrachloride																		
108-08-4	Vinyl Acetate					UJ		R		R		R		UJ		UJ		UJ	
78-27-4	Bromodichloromethane																		
78-87-6	1, 2-Dichloropropane																		
10081-02-8	Trans-1, 3-Dichloropropane																		
79-01-8	Trichloroethane																		
124-48-1	Dibromochloromethane																		
79-00-5	1, 1, 2-Trichloroethane																		
71-43-2	Benzene																		
10081-01-8	cis-1, 3-Dichloropropane							UJ		UJ		UJ							
110-75-8	2-Chloroethylvinylether					R		R		R		R		R		R		R	
78-25-2	Bromoform					UJ													
891-78-8	4-Methyl-2-Pentanone																		
108-10-1	2-Hexanone							UJ		UJ		UJ							
127-18-4	Tetrachloroethane																		
79-34-5	1, 1, 2, 2-Tetrachloroethane																		
108-88-3	Toluene					7				5				8		6		2 J	
108-90-7	Chlorobenzene																		
100-41-4	Ethylbenzene																		
100-42-5	Styrene																		
	Total Xylenes																		

AR300927

ASE #/SITE ID: 6040/Kane & Lombard

DATE SAMPLED:		6-3-86	6-3-86	6-3-86	6-3-86			
DATE SAMPLE RECD:		6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86
DATE EXTR/PREP'D:		6-15-86	6-15-86	6-12-86	6-12-86	6-12-86	6-13-86	6-15-86
DATE ANALYZED:		6-15-86	6-15-86	6-12-86	6-12-86	6-12-86	6-13-86	6-15-86
CONC/DIL FACTOR:		1 pH:7.2	1 pH:7.4	1	1	1	1	1
% MOISTURE:		9.0	9.0	0	0	0	0	0
UNITS:		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.: TRAFFIC REPORT #:		CE 815	CE 816	TRIP BLANK CE 817	FIELD BLANK CE 818	Blank	Blank	Blank
CAS Number								
74-87-3	Chloromethane	UJ	UJ					
74-83-9	Bromomethane							
75-01-4	Vinyl Chloride							
75-00-3	Chloroethane	UJ	UJ					
75-08-2	Methylene Chloride	1 UJ	38 UJ	130 UJ	110 UJ		1 J	
67-64-1	Acetone	17 UJ	83 UJ	22 UJ	11 UJ	15	13	14
75-15-0	Carbon Disulfide	UJ	UJ	UJ	UJ			
75-35-4	1, 1-Dichloroethane							
75-34-3	1, 1-Dichloroethane	UJ	UJ					
156-80-5	Trans-1, 2-Dichloroethane							
67-66-3	Chloroform							
107-08-2	1, 2-Dichloroethane							
78-83-3	2-Butanone	12 UJ	17 UJ	13 UJ	13 UJ	18	18	20 -
71-55-6	1, 1, 1-Trichloroethane			1 J				
56-23-5	Carbon Tetrachloride							
108-06-4	Vinyl Acetate	UJ	UJ	UJ	UJ			
75-27-4	Bromodichloromethane							
78-87-5	1, 2-Dichloropropane							
10061-02-6	Trans-1, 3-Dichloropropene							
79-01-8	Trichloroethane							
124-48-1	Dibromochloromethane							
79-00-5	1, 1, 2-Trichloroethane							
71-43-2	Benzene							
10061-01-5	cis-1, 3-Dichloropropene							
110-75-8	2-Chloroethoxyvinylether	R	R	R	R			
75-25-2	Bromoform							
591-78-6	4-Methyl-2-Pentanone							
108-10-1	2-Hexanone							
127-18-4	Tetrachloroethane							
79-34-5	1, 1, 2, 2-Tetrachloroethane							
108-88-3	Toluene		73					
108-90-7	Chlorobenzene							
100-41-4	Ethylbenzene							
100-42-5	Styrene							
	Total Xylenes		3 J					

AR300928

CASE #/SITE ID: 6040 Kane - Lombard

DATE SAMPLED:	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86
DATE SAMPLE RECD:	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86
DATE EXTR/PREP'D:	6-12-86	6-12-86	6-13-86	6-12-86	6-13-86	6-12-86	6-12-86
DATE ANALYZED:	6-12-86	6-12-86	6-13-86	6-12-86	6-13-86	6-12-86	6-12-86
CONC/DIL FACTOR:	2.5/5	2.5/5	10/3/5	2/5	1/10	5	5
MOISTURE:	2	2	17	2.5	10	1	1
UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:	CE 819	CE 820	TRIP BLANK CE 821	FIELD BLANK 1 CE 822	FIELD BLANK 2 CE 823	CE 824	CE 825
74-87-3	Chloromethane	UJ	UJ	UJ	UJ	UJ	UJ	UJ
74-89-9	Bromomethane							UJ
75-01-4	Vinyl Chloride		110					
75-00-3	Chloroethane							
75-08-2	Methylene Chloride	39 UJ	40 UJ	1800 UJ	320 UJ	1600 UJ	26 UJ	24 UJ
67-64-1	Acetone	27 UJ	19 UJ	290 UJ		190 UJ	30 UJ	20 UJ
75-18-0	Carbon Disulfide							
75-35-4	1, 1-Dichloroethane							
75-34-3	1, 1-Dichloroethane							
156-80-5	Trans-1, 2-Dichloroethane		220					
67-68-3	Chloroform							
107-08-2	1, 2-Dichloroethane							UJ
78-93-3	2-Butanone				4 J			UJ
71-55-6	1, 1, 1-Trichloroethane							
59-23-5	Carbon Tetrachloride							UJ
108-05-4	Vinyl Acetate							
75-27-4	Bromodichloromethane							
75-87-5	1, 2-Dichloropropene							
10081-02-6	Trans-1, 3-Dichloropropene							
75-01-6	Trichloroethane		5 J					
124-48-1	Dibromochloromethane							
75-00-5	1, 1, 2-Trichloroethane							
71-43-2	Benzene	3 J						UJ
10081-01-5	cis-1, 3-Dichloropropene							UJ
110-75-8	2-Chloroethylvinylether							
75-25-2	Bromoform							
591-78-6	4-Methyl-2-Pentanone							UJ
108-10-1	2-Hexanone							UJ
127-18-4	Tetrachloroethane							
75-34-5	1, 1, 2, 2-Tetrachloroethane							
108-88-3	Toluene	3 UJ	3 UJ	24 UJ	3 UJ		1 UJ	2 UJ
108-90-7	Chlorobenzene	270	29					
100-41-4	Ethylbenzene							
100-42-5	Styrene							
	Total Xylenes							

AR300929

CASE #/SITE ID: 6040/Kane + Lombard

DATE SAMPLED:	6-4-86	6-4-86	6-4-86	6-4-86			
DATE SAMPLE RECD:	6-6-86	6-6-86	6-6-86	6-6-86			
DATE EXTR/PREP'D:	6-12-86	6-12-86	6-12-86	6-12-86	6-11-86	6-12-86	6-13-86
DATE ANALYZED:	6-12-86	6-12-86	6-12-86	6-12-86	6-11-86	6-12-86	6-13-86
CONC/DIL FACTOR:	5	5	1/5	1/5	5	5	5
MOISTURE:	1	1	5	5	1	1	1
UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

SAMPLE DESCRIPT.:								
CAS Number	TRAFFIC REPORT #:	CE 826	CE 827	CE 828	CE 829	Blank	Blank	Blank
74-87-3	Chloromethane	UJ	UJ	UJ	UJ		UJ	
74-83-9	Bromomethane	UJ	UJ	UJ	UJ		UJ	
75-01-4	Vinyl Chloride			67				
75-00-3	Chloroethane							
75-08-2	Methylene Chloride	23 UJ	47 UJ	300 UJ	300 UJ	24	21	3 J
67-64-1	Acetone	12 UJ	29 UJ	130 UJ	140 UJ	18	13	13
75-15-0	Carbon Disulfide							
75-35-4	1, 1-Dichloroethane							
75-34-3	1, 1-Dichloroethane							
156-60-5	Trans-1, 2-Dichloroethane			800	770			
67-66-3	Chloroform							
107-06-2	1, 2-Dichloroethane	UJ	UJ	UJ	UJ		UJ	
78-83-3	2-Butanone	UJ	UJ	UJ	UJ		UJ	
71-55-6	1, 1, 1-Trichloroethane							
56-23-5	Carbon Tetrachloride	UJ	UJ	UJ	UJ		UJ	
108-05-4	Vinyl Acetate	UJ	UJ	UJ	UJ		UJ	
75-27-4	Bromodichloromethane							
78-87-6	1, 2-Dichloropropene							
10061-02-8	Trans-1, 3-Dichloropropene							
79-01-6	Trichloroethane							
124-48-1	Dibromochloromethane							
79-00-5	1, 1, 2-Trichloroethane							
71-43-2	Benzene	UJ	UJ	UJ	UJ		UJ	
10061-01-5	cis-1, 3-Dichloropropene	UJ	UJ	UJ	UJ		UJ	
110-75-8	2-Chloroethylvinylether							
75-25-2	Bromoform							
591-78-6	4-Methyl-2-Pentanone	UJ	UJ	UJ	UJ		UJ	
108-10-1	2-Hexanone	UJ	UJ	UJ	UJ		UJ	
127-18-4	Tetrachloroethane							
75-34-5	1, 1, 2, 2-Tetrachloroethane							
108-88-3	Toluene	1 UJ	3 UJ	14 UJ	15 UJ	1 J	1 J	1 J
108-90-7	Chlorobenzene							
100-41-4	Ethylbenzene							
100-42-5	Styrene							
	Total Xylenes							

AR300930

DATE SAMPLED:	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86
DATE SAMPLE RECD:	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86
DATE EXTN/PREP'D:	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86
DATE ANALYZED:	6-13-86	6-16-86	6-17-86	6-17-86	6-17-86	6-17-86	6-17-86	6-17-86	6-19-86	6-19-86
CONC/DIL FACTOR:	22	29	24	28	27	26.1	26.1	28.1	24.5	26.2
% MOISTURE:										
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:									
	CE801	CE802	CE803	CE804	CE805	CE806	CE807	CE808	CE809	CE810
108-88-2	Phenol									
111-44-4	bis(2-Chloroethyl)Ether									
99-87-8	2-Chlorophenol									
541-73-1	1,3-Dichlorobenzene									
106-46-7	1,4-Dichlorobenzene									
100-51-6	Benzyl Alcohol	UJ								
95-50-1	1,2-Dichlorobenzene									
96-48-7	2-Methylphenol	UJ								
30838-32-9	bis(2-chloroisopropyl)Ether									
106-44-5	4-Methylphenol	UJ								
621-84-7	N-Nitroso-Di-n-Propylamine	UJ								
67-72-1	Hexachloroethane									
98-96-3	Nitrobenzene									
78-58-1	Isophorone									UJ
99-78-5	2-Nitrophenol									
106-67-9	2,4-Dimethylphenol	UJ								
68-86-0	Benzoic Acid (1)	UJ			95 J	470 J			UJ	UJ
111-91-1	bis(2-Chloroethoxy)Methane	UJ								UJ
120-83-2	2,4-Dichlorophenol									
130-82-1	1,2,4-Trichlorobenzene									
91-20-3	Naphthalene			40 J		35 J				
106-47-8	4-Chloroaniline	UJ								
67-88-3	Hexachlorobutadiene									
88-50-7	4-Chloro-3-Methylphenol									
91-57-6	2-Methylnaphthalene			42 J						
77-67-4	Hexachlorocyclopentadiene									UJ
88-06-2	2,4,6-Trichlorophenol					53 J				
96-86-4	2,4,6-Trichlorophenol (2)								UJ	
91-86-7	2-Chloronaphthalene									
99-74-4	2-Nitroaniline (2)									
121-11-3	Dimethyl Phthalate									
200-99-9	Acenaphthylene			34 J						230 J
99-89-7	3-Nitroaniline (2)	UJ							UJ	UJ
91-33-9	Acenaphthene									
91-38-6	2,4-Dinitrophenol (2)									UJ
100-02-7	4-Nitrophenol (2)								UJ	UJ
132-64-9	Diethylurea			41 J						
121-14-2	2,4-Dinitrofluorene								UJ	
908-20-2	2,6-Dinitrofluorene								UJ	
94-86-2	Dinitrophenol									
2006-72-2	4-Chlorophenyl-phenylether									
94-73-7	Fluorene									
100-01-6	4-Nitroaniline (2)	UJ							UJ	UJ
134-62-1	4,6-Dinitro-2-Methylphenol (2)	UJ								
94-35-6	N-Nitrosodiphenylamine (1)									
101-66-3	4-Bromophenyl-phenylether									
118-74-1	Hexachlorobenzene									
97-86-6	Permethrin (2)									150 J
96-01-8	Phenanthrene	140 J	34 J	79 J	350 J	166 J	120 J	72 J		970 J
120-12-7	Anthracene				87 J					220 J
94-74-2	Di-n-Butylphthalate	420 UJ	430 UJ	440 UJ	510 UJ	450 UJ	240 UJ	240 UJ	1600 UJ	240 UJ
908-44-0	Fluoranthene	310 J	47 J	110 J	150 J	190 J	200 J	99 J	130 J	230 J
129-00-0	Pyrene	160 J	43 J	120 J	340 J	160 J	160 J	60 J	140 J	1400 J
98-48-7	Butylbenzylphthalate	500 J	98 J	360 J	240 J	130 J	510 J	51 J	360 J	3400 J
91-84-1	3,3-Dichlorobenzidine (2)	R	R	R	R	R	R	R	R	R
94-86-3	Benzo(a)anthracene	110 J	53 J	42 J	160 J	200 J	140 J		480 J	1100 J
117-91-7	bis(2-Ethylhexyl)Phthalate	1400 J	180 J	300 UJ	3400 J	600 UJ	340 UJ	150 UJ	150 UJ	500 UJ
918-01-8	Chrysene	110 J	37 J	97 J	380 J	140 J	130 J		47 J	400 J
117-84-0	Di-n-Octyl Phthalate									
908-88-2	Benzo(a)fluoranthene									
207-08-9	Benzo(b)fluoranthene	200 J	71 J	150 J	490 J	230 J	190 J		120 J	2700 J
90-33-8	Benzo(a)pyrene	130 J	51 J	120 J	390 J	120 J	94 J		49 J	750 J
183-38-6	Indeno(1,2,3-cd)Pyrene	130 J	50 J	180 J	54 J	84 J	48 J			840 J
93-70-2	Benzo(e)fluoranthene									
181-34-2	Benzo(g,h,i)perylene	110 J	52 J	180 J	130 J		41 J			250 J

(1) Cannot be separated from diphenylamine

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DATE SAMPLED:	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86		
DATE SAMPLE RECD:	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86		
DATE EXTR/PREP'D:	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-24-86
DATE ANALYZED:	6-14-86	6-23-86	6-23-86	6-23-86	6-24-86	6-24-86	6-24-86	6-25-86	6-19-86	6-25-86
CONC/DIL FACTOR:	27:1	29:5	29:1	24:1	28:1	27:2	30:1	35:1	30:1	30:1
% MOISTURE:										
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:							TRIP BLANK	FIELD BLANK		
TRAFFIC REPORT #:	CE811	CE812	CE813	CE814	CE815	CE816	CE817	CE818	Blank	Blank
100-86-2 Phenol							48 J			
111-44-4 Isol. 2-ChloroethoxyMeth										
86-87-8 2-Chlorophenol										
841-77-1 1,3-Dichlorobenzene										
105-46-7 1,4-Dichlorobenzene										
100-81-6 Benzyl Alcohol										
86-80-1 1,2-Dichlorobenzene										
86-48-7 2-Methylphenol										
30836-32-9 Isol. 2-chloroethoxyMeth										
105-44-5 4-Methylphenol										
821-84-7 N-Nitroso-D,n-Propylamine										
87-72-1 Hexachlorocyclopentadiene										
88-96-3 Nitrobenzene										
78-58-1 Isobutylene	UJ	380 J	200 J							
88-75-5 2-Toluophenol										
105-67-9 2,4-Dimethylphenol										
86-85-0 Benzoic Acid (3)	890 J	UJ	UJ	UJ	R	R	R	R	UJ	
111-91-1 Isol. 2-ChloroethoxyMethane	UJ									
120-83-2 2,4-Dichlorophenol										
120-82-1 1,2,4-Trichlorobenzene										
81-30-3 Naphthalene		250 J	42 J							
105-47-8 4-Chlorobenzene										
87-68-3 Hexachlorobutadiene										
88-90-7 4-Chloro-3-Methylphenol										
81-57-6 2-Methylnaphthalene		320 J								
77-47-4 Hexachlorocyclopentadiene	UJ	UJ	UJ	UJ						
86-86-2 2,4,6-Trichlorophenol										
86-86-4 2,4,6-Trichlorophenol (3)									UJ	
81-68-7 3-Chloronaphthalene										
88-74-4 2-Nitroaniline (2)										
121-11-2 Dimethyl Phthalate										
88-99-8 Acetophenone										
88-99-2 3-Nitroaniline (3)	UJ								UJ	
82-82-8 Acetophenone		180 J								
81-38-8 2,4-Dichlorophenol (3)	UJ	UJ	UJ	UJ						
100-02-7 4-Methylphenol (3)	UJ								UJ	
123-64-9 Benzofuran										
121-14-2 2,4-Dinitrofluorene									UJ	
102-20-2 2,6-Dinitrofluorene										
84-86-2 Diethylphthalate									UJ	
2006-72-3 4-Chlorophenyl-phenyl ether										
86-73-7 Fluorene		170 J								
100-01-6 4-Nitroaniline (3)	UJ				UJ	UJ	UJ	UJ	UJ	
134-63-1 4,6-Dinitro-2-Methylphenol (3)		UJ	UJ	UJ						
86-35-8 N-Nitrosodiphenylamine (1)										
101-86-3 4-Bromophenyl-phenyl ether										
118-74-1 Hexachlorobenzene										
87-86-1 Hexachlorophenol (2)										
86-01-8 Phenanthrene	51 J	1700	190 J		40 J	94 J				
122-12-7 Anthracene		390 J	33 J							
84-74-2 Di-n-Butylphthalate	340 UJ	950 UJ	570 UJ	270 UJ	210 UJ	200 UJ	590	170 UJ	36 J	34 J
86-84-8 Fluorene	120 J	2000	250 J		67 J	120 J				
128-00-0 Pyrene	71 J	2200	150 J	60 J	54 J	100 J				
86-86-7 Hexachlorocyclopentadiene	510 J	2400	350	220 J	180 J	230 J			UJ	
81-84-1 3,5-Dinitrobenzoic acid (1)	R	R	R	R	R	R	R	R	R	R
86-86-3 Hexachlorocyclopentadiene	44 J	1180	91 J		49 J	92 J				
117-81-7 Isol. 2-EthoxyethoxyPhthalate	530 UJ	1600	380 UJ	490 UJ	220 UJ	1500	48 UJ	46 UJ	59 J	
118-01-8 Chrysene	53 J	1400	180 J		57 J	130 J				
117-84-0 Di-n-Octyl Phthalate										
86-86-3 Hexachlorocyclopentadiene										
87-86-3 Hexachlorocyclopentadiene	110 J		200 J		89 J	180 J				
86-35-8 Hexachlorocyclopentadiene	49 J		92 J		48 J	110 J				
182-86-1 Isodimethyl, 2,3-Diphenyl										
182-86-1 Isodimethyl, 2,3-Diphenyl										
81-24-2 Isodimethyl, 2,3-Diphenyl										

(1) Cannot be separated from diphenylamine

AR300932

CASE #/SITE ID: 6040 / Kane - Lombard

DATE SAMPLED:	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86
DATE SAMPLE RECD:	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86
DATE EXT/REP'D:	6-8-86	6-8-86	6-8-86	6-8-86	6-8-86	6-8-86	6-8-86	6-8-86	6-8-86	6-8-86
DATE ANALYZED:	6-24-86	6-24-86	6-25-86	6-25-86	7-2-86	7-2-86	7-2-86	7-2-86	7-2-86	7-2-86
CONC/DIL FACTOR:	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
% MOISTURE:										
UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SAMPLE DESCRIPT.:	TRAFFIC REPORT #:									
QAS Number	CEP9	CEP20	TRIP BLANK CEP21	FIELD BLANK1 CEP22	FIELD BLANK-2 CEP23	CEP24	CEP25	CEP26	CEP27	CEP28
109-00-2	Phenol	40 UJ								
111-04-4	Isop. 2-Chlorophenyl Ether									
09-07-0	2-Chlorophenol	40 UJ								
041-72-1	1, 2-Dichlorobenzene									
100-06-7	1, 4-Dichlorobenzene	5 J								
100-01-6	Benzyl Alcohol	40 UJ								
05-00-1	1, 2-Dichlorobenzene									
05-00-7	2-Methylphenol	40 UJ								
00030-32-0	Isop. 2-chlorophenyl Ether	UJ	UJ	UJ	UJ					
100-04-5	4-Methylphenol	40 UJ								
021-04-7	N-Methyl-Di-N-Propylamine									
07-72-1	Hexachlorocyclopentadiene									
00-00-3	Nitrobenzene									
70-00-1	Isophenol									
00-70-5	2-Nitrophenol	40 UJ								
100-07-0	2, 4-Dinitrophenol	40 UJ								
00-00-0	Sulfonic Acid (3)	40 UJ								
111-01-1	Isop. 2-Chlorophenyl Ether									
120-03-2	2, 4-Dichlorophenol	40 UJ								
120-02-1	1, 2, 4-Trichlorobenzene									
01-00-3	Nitrobenzene									
100-07-0	4-Chlorobenzene				UJ	UJ	UJ	UJ	UJ	UJ
07-00-3	Hexachlorocyclopentadiene									
00-00-7	4-Chloro-3-Methylphenol	40 UJ								
01-07-6	2-Methylnitrophenol									
77-07-4	Hexachlorocyclopentadiene									
00-00-3	2, 4, 6-Trichlorophenol	40 UJ								
00-00-4	2, 4, 6-Trichlorophenol (3)	40 UJ								
01-00-7	3-Chlorophenol									
00-70-4	2-Nitrobenzene (3)									
121-11-3	Dimethyl Phthalate									
000-00-0	Acrylonitrile									
00-00-2	3-Nitrobenzene (3)	UJ	UJ	UJ	UJ	R	R	R	R	R
00-00-0	Acrylonitrile									
11-00-0	2, 4-Dinitrophenol (3)	40 UJ								
100-00-7	4-Methylphenol (3)	UJ	40 UJ	UJ	UJ					
120-04-0	Benzenesulfonamide									
121-10-2	2, 4-Dinitrophenol									
000-00-2	2, 4-Dinitrophenol									
000-77-3	4-Chlorophenyl-phenyl ether									
00-77-7	Pyrene									
100-01-0	4-Nitrobenzene (3)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
03-03-1	4, 6-Dinitro-3-Methylphenol (3)									
00-00-0	N-Methyl-Di-N-Propylamine (1)									
101-00-0	4-Bromophenyl-phenyl ether									
110-74-1	Hexachlorocyclopentadiene									
77-00-5	Hexachlorocyclopentadiene (3)	40 UJ								
00-01-0	Phenanthrene									
120-13-7	Acrylonitrile									
04-74-2	0-N-Butyphenol									
00-00-0	Pyrene									
120-00-0	Pyrene									
00-00-7	Acrylonitrile									
01-00-1	3, 5-Dinitrobenzene (3)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
00-00-3	Hexachlorocyclopentadiene									
117-01-7	Isop. 2-Ethoxyphenyl Ether	6 J								
110-01-0	Chrysene									
117-04-0	0-N-Octyl Phthalate									
00-00-2	Hexachlorocyclopentadiene									
007-00-0	Hexachlorocyclopentadiene									
00-00-0	Hexachlorocyclopentadiene									
100-00-0	Isobutyl, 2, 3-Epoxypropane									
03-70-2	Pyrene, n-Hexadecane									
01-04-7	Benzoic acid, n-Hexadecane									

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CASE #/SITE ID: 6040 / Kane - Lombard

[illegible]

~~AR 300 934~~

CASE #/SITE ID: 6040/Ken & Lombard

Pg 10-15

DATE SAMPLED:	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86
DATE SAMPLE RECD:	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86
DATE EXTR/PREP'D:	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86
DATE ANALYZED:	7-2-86	7-2-86	7-2-86	7-2-86	7-2-86	7-2-86	7-7-86
CONC/DIL FACTOR:	1.1 / 5	1.4 / 5	1.5 / 5	1.4 / 25	1.4 / 5	1.3 / 5	1.3 / 5
% MOISTURE:							
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:							
CAS Number	TRAFFIC REPORT #:						
	CE801	CE802	CE803	CE804	CE805	CE806	CE807
919-84-8	Alpha-BHC						
919-85-7	Beta-BHC						
919-86-8	Delta-BHC						
58-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
958-98-8	Endosulfan I						
80-57-1	Dieldrin						
72-55-9	4,4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-54-8	4,4'-DDD						
1001-07-8	Endosulfan Sulfate		48	150	88	48	
50-29-3	4,4'-DDT				24 J		
72-43-8	Methoxychlor						
53494-70-8	Endrin Ketone						
57-74-9	Chlordane			100 J			
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-8	Aroclor-1232						
53489-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248						
11087-88-1	Aroclor-1254						
11086-82-6	Aroclor-1260						

AR300935

CASE #/SITE ID: 6040/ Ken & Straband

Pg 11-15

DATE SAMPLED:	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86	6-3-86
DATE SAMPLE RECD:	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86	6-5-86
DATE EXTR/PREP'D:	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86
DATE ANALYZED:	7-2-86	7-2-86	7-2-86	7-2-86	7-2-86	7-2-86	7-2-86
CONC/DIL FACTOR:	1.3/5	1.2/25	1.3/10	1.3/5	1.4/50	1.4/10	1.3/5
MOISTURE:							
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	CE 808	CE 809	CE 810	CE 811	CE 812	CE 813	CE 814
319-84-8	Alpha-BHC						
319-85-7	Beta-BHC						
319-86-8	Delta-BHC						
38-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
959-98-8	Endosulfan I						
30-57-1	Dieldrin		48		45 J		
72-85-9	4,4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-84-8	4,4'-DDD						
1031-07-8	Endosulfan Sulfate		260				
50-29-3	4,4'-DDT		61 J		92 J		
72-43-5	Methoxychlor						
53494-70-8	Endrin Ketone						
57-74-9	Chlordane				360 J		20 J
8001-26-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
53489-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248						
11087-89-1	Aroclor-1254					920	
11086-82-5	Aroclor-1260		860			530	

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CASE #/SITE ID: 6040 / Xene + Lombard

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DATE SAMPLED:		6-3-86	6-3-86	6-3-86	6-3-86			
DATE SAMPLE RECD:		6-5-86	6-5-86	6-5-86	6-5-86			
DATE EXTR/PREP'D:		6-9-86	6-9-86	6-9-86	6-9-86	6-9-86		
DATE ANALYZED:		7-2-86	7-3-86	7-3-86	7-3-86	7-2-86		
CONC/OIL FACTOR:		1.4 / 5	1.4 / 5	1.5 / 5	1.5 / 5	1.5 / 5		
% MOISTURE:								
UNITS:		ug / kg	ug / kg	ug / kg	ug / kg			
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:	CE 815	CE 816	TRIP BLANK CE 817	FIELD BLANK CE 818	Blank		
019-84-8	Alpha-BHC							
019-85-7	Beta-BHC							
019-86-8	Delta-BHC							
56-89-9	Gammax-BHC (Lindane)							
76-44-8	Heptachlor							
309-00-2	Aldrin							
1024-57-3	Heptachlor Epoxide							
959-98-8	Endosulfan I							
80-57-1	Dieldrin							
72-55-9	4, 4'-DDE							
72-20-8	Endrin							
33213-85-9	Endosulfan II							
72-84-8	4, 4'-DDD							
1031-07-8	Endosulfan Sulfate							
50-28-3	4, 4'-DDT							
72-43-8	Methoxychlor							
53494-70-8	Endrin Ketone							
87-74-9	Chlordane							
8001-36-2	Toxaphene							
12674-11-2	Aroclor-1016							
11104-28-2	Aroclor-1221							
11141-16-8	Aroclor-1232							
53488-21-8	Aroclor-1242							
12672-29-8	Aroclor-1248							
11087-88-1	Aroclor-1254							
11086-82-5	Aroclor-1260							

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1116 - 27

DATE SAMPLED:	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86	6-4-86
DATE SAMPLE RECD:	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86	6-6-86
DATE EXTR/PRP'D:	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86
DATE ANALYZED:	6-12-86	6-12-86	6-12-86	6-12-86	6-26-86	6-13-86	6-13-86
CONC/DIL FACTOR:	1/10 10/10	1/10 10/10	1/10 10/10	1/10 10/10	1/10 10/10	1/10 10/10	1/10 10/10
% MOISTURE:							
UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	CE 819	CE 820	TRIP BLANK CE 821	FIELD BLANK 1 CE 822	FIELD BLANK 2 CE 823	CE 824	CE 825
319-84-6	Alpha-BHC						
319-85-7	Beta-BHC						
319-86-8	Delta-BHC						
58-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
959-96-8	Endosulfan I						
60-57-1	Dieldrin						
72-55-9	4, 4'-DDE						
72-20-8	Endrin						
33213-65-9	Endosulfan II						
72-54-8	4, 4'-DDD						
1031-07-8	Endosulfan Sulfate						
50-29-3	4, 4'-DDT						
72-43-5	Methoxychlor						
53494-70-5	Endrin Ketone						
57-74-9	Chlordane						
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
53469-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248						
11087-69-1	Aroclor-1254						
11086-82-5	Aroclor-1260						

AR300938

DATE SAMPLED:	6-4-86	6-4-86	6-4-86	6-4-86			
DATE SAMPLE RECD:	6-6-86	6-6-86	6-6-86	6-6-86			
DATE EXTR/PREP'D:	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	6-9-86	
DATE ANALYZED:	6-14-86	6-14-86	6-14-86	6-14-86	6-12-86	6-30-86	
CONC/DIL FACTOR:	1/10 10/10	1/10 10/10	1/10 10/10	1/10 10/10	1/10 10/10	1/10 10/10	
% MOISTURE:							
UNITS:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	CE 826	CE 827	CE 828	CE 829	Blank	Blank	
019-84-8	Alpha-BHC						
019-85-7	Beta-BHC						
019-86-8	Delta-BHC						
58-89-9	Gamma-BHC (Lindane)						
78-44-8	Heptachlor						
308-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
959-98-8	Endosulfan I						
80-57-1	Dieldrin						
72-85-9	4,4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-54-8	4,4'-DDD						
1031-07-8	Endosulfan Sulfate						
80-29-3	4,4'-DDT						
72-43-5	Methoxychlor						
53494-70-5	Endrin Ketone						
57-74-9	Chlordane						
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
53469-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248						
11087-68-1	Aroclor-1254						
11086-82-5	Aroclor-1260						

AR300939

AR300939

CAS Number		WATER ug/L	SOIL ug/kg
74-87-3	Chloromethane	10	10
74-89-9	Bromomethane	10	10
75-01-4	Vinyl Chloride	10	10
75-00-3	Chloroethane	10	10
75-08-2	Methylene Chloride	5	5
67-64-1	Azene	10	10
75-15-0	Carbon Disulfide	5	5
75-28-4	1, 1-Dichloroethane	5	5
75-34-3	1, 1-Dichloroethane	5	5
156-80-8	Trans-1, 2-Dichloroethane	5	5
67-66-3	Chloroform	5	5
107-08-2	1, 2-Dichloroethane	5	5
75-03-3	2-Butene	10	10
71-55-6	1, 1, 1-Trichloroethane	5	5
85-22-5	Carbon Tetrachloride	5	5
108-05-4	Vinyl Acetate	10	10
75-27-4	Bromodichloromethane	5	5
75-87-5	1, 2-Dichloropropane	5	5
10081-02-8	Trans-1, 2-Dichloropropane	5	5
75-01-8	Trichloroethane	5	5
124-48-1	Dibromochloromethane	5	5
75-00-5	1, 1, 2-Trichloroethane	5	5
71-43-2	Benzene	5	5
10081-01-5	cis-1, 2-Dichloropropane	5	5
110-75-8	2-Chloroethoxyethyl ether	10	10
75-25-2	Bromoform	5	5
501-78-6	4-Methyl-2-Pentanone	10	10
108-10-1	2-Hexanone	10	10
127-18-4	Tetrachloroethane	5	5
75-24-5	1, 1, 2, 2-Tetrachloroethane	5	5
108-88-3	Toluene	5	5
108-90-7	Chlorobenzene	5	5
100-41-4	Ethylbenzene	5	5
100-42-5	Styrene	5	5
	Total Xylene	5	5

CAS Number		WATER ug/L	SOIL ug/kg
519-84-6	Alpha-BHC	0.05	8.0
519-85-7	Beta-BHC	0.05	8.0
519-86-8	Delta-BHC	0.05	8.0
55-89-9	Gamma-BHC (Lindane)	0.05	8.0
75-84-2	Heptachlor	0.05	8.0
309-00-2	Aldrin	0.05	8.0
1024-57-3	Heptachlor Epoxide	0.05	8.0
859-98-8	Endosulfon I	0.05	8.0
80-57-1	Dieldrin	0.10	16
72-55-9	4, 4'-DDE	0.10	16
72-20-8	Endrin	0.10	16
33213-95-9	Endosulfon II	0.10	16
72-54-8	4, 4'-DDD	0.10	16
1031-07-8	Endosulfon Sulfate	0.10	16
50-29-3	4, 4'-DDT	0.10	16
72-43-8	Methoxychlor	0.5	80
83484-70-5	Endrin Ketone	0.1	16
57-74-9	Chlordane	0.5	80
8001-36-2	Teaflorone	1.0	160
12674-11-2	Aroclor-1018	0.5	80
11104-28-2	Aroclor-1221	0.5	80
11141-16-8	Aroclor-1232	0.5	80
53489-21-8	Aroclor-1242	0.5	80
12672-29-4	Aroclor-1248	0.5	80
11087-80-1	Aroclor-1254	1.0	160
11086-82-5	Aroclor-1260	1.0	160

CAS Number		WATER ug/L	SOIL ug/kg
108-95-2	Phenol	10	330
111-44-4	bis-2-Chloroethoxyethyl ether	10	330
95-57-8	2-Chlorophenol	10	330
541-72-1	1, 3-Dichlorobenzene	10	330
105-46-7	1, 4-Dichlorobenzene	10	330
100-51-6	Benzyl Alcohol	10	330
95-50-1	1, 2-Dichlorobenzene	10	330
95-48-7	3-Methylphenol	10	330
39638-22-9	bis(2-chloroethoxy)ethyl ether	10	330
106-44-5	4-Methylphenol	10	330
621-64-7	N-Nitroso-Di-n-Propylamine	10	330
67-72-1	Mesochlorobenzene	10	330
98-95-3	Nitrobenzene	10	330
75-55-1	Isophenol	10	330
88-75-8	2-Nitrophenol	10	330
106-67-9	2, 4-Dimethylphenol	10	330
65-85-0	Benzoic Acid	50	1600
111-91-1	bis-2-ChloroethoxyMethane	10	330
120-83-2	2, 4-Dichlorophenol	10	330
120-82-1	1, 2, 4-Trichlorobenzene	10	330
91-20-3	Naphthalene	10	330
105-47-6	4-Chloroaniline	10	330
87-48-3	Mesochlorobutadiene	10	330
88-90-7	4-Chloro-3-Methylphenol	10	330
91-87-4	2-Methylnaphthalene	10	330
77-47-4	Mesochlorocyclopentadiene	10	330
88-06-2	2, 4, 6-Trichlorophenol	10	330
95-95-4	2, 4, 6-Trichlorophenol (2)	50	1600
91-58-7	2-Chloronaphthalene	10	330
88-74-4	2-Nitroaniline	50	1600
131-11-3	Dimethyl Phthalate	10	330
208-98-8	Acenaphthylene	10	330
99-08-2	3-Nitroaniline	50	1600
83-32-9	Acenaphthene	10	330
91-28-6	2, 4-Dinitrophenol	50	1600
100-02-7	4-Nitrophenol	50	1600
122-44-9	Diethylurea	10	330
121-14-2	2, 4-Dinitrofluorene	10	330
209-20-2	2, 6-Dinitrofluorene	10	330
84-66-2	Dioctylphthalate	10	330
7005-72-3	4-Chlorophenyl-phenyl ether	10	330
94-73-7	Fluorene	10	330
100-01-8	4-Nitroaniline	50	1600
534-52-1	4, 6-Dinitro-2-Methylphenol	50	1600
55-30-6	N-Nitrosodiphenylamine (1)	10	330
101-55-3	4-Bromophenyl-phenyl ether	10	330
118-74-1	Mesochlorobenzene	10	330
87-66-5	Pentachlorophenol	50	1600
85-01-8	Phenanthrene	10	330
120-12-7	Anthracene	10	330
84-74-2	Di-n-Butylphthalate	10	330
208-44-0	Fluoranthene	10	330
129-00-0	Pyrene	10	330
95-88-7	Butylbenzylphthalate	10	330
91-94-1	3, 3'-Dichlorobenzidine	20	660
54-55-3	Benzo(a)Anthracene	10	330
117-81-7	bis(2-Ethoxyethyl)Phthalate	10	330
918-01-9	Chrysene	10	330
117-84-0	Di-n-Octyl Phthalate	10	330
208-98-2	Benzo(b)Fluoranthene	10	330
207-08-9	Benzo(k)Fluoranthene	10	330
50-32-8	Benzo(e)Pyrene	10	330
193-28-5	Indeno(1, 2, 3-cd)Pyrene	10	330
53-70-2	Chloranthracene	10	330
191-24-2	Benzo(a,h)Pyrene	10	330

(1) Cannot be separated from diphenylamine R300940

Date Review Completed 10-10-86Case No. 6040 SAS No. —Site Name KOM + LombardSample Nos. CE801-CE818(REL also CE819-CE829)Lab: IT/CerritosContract Lab CAL AnalyticalContract No. 68-01-6958Lab DPO (IX) Terry StumphReviewer Marie Thornefrom Region III Phone 315-524-0180FTS (WESTON)

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid	16			
aqueous	2			1 trip blank, 1 field blank (2)
other				

VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--BFB	✓			
Initial Calibration	✓	✓	3	summary of non-CCC and non-SPEC
Continuing Calibration	✓	✓		exceeding criteria in Figure 1A (attached)
Surrogate Recovery	✓			
Matrix Spikes	✓			
Reagent Blanks	✓	1✓		acetone, butanone > CRDL, but < 5X CRDL
Holding times	✓			

SEMI-VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--DFTPP	✓			
Initial Calibration	✓	✓	3	summary of non-CCC and non-SPEC
Continuing Calibration	✓	✓		exceeding criteria in Figure 1B (attached)
Surrogate Recovery	✓			
Matrix Spikes	✓	1✓		noted. does not impact usability
Reagent Blanks	✓	2		
Holding times	✓			

PESTICIDES	OK	FYI	ACTION	COMMENTS
Instrument Performance			✓ 1	DDT breakdown exceeded 20% criteria
Initial Calibration	✓			
Continuing Calibration	✓			
Surrogate Recovery	✓			
Matrix Spikes	✓			
Reagent Blanks	✓			
Holding times	✓			

OVERALL CASE	OK	FYI	ACTION	COMMENTS
Compound Identification		✓	✓ 3	PEST-endosulfan sulfate added to data summary
Data Completeness	✓			

REVIEWER'S COMMENTS:

- ① summary attached
- ② trip/field blanks were analyzed as soils (i.e. 1-30g water weighed out and prepared/analyzed as a soil). PREFERENCE IS TO RUN AS A LOW LEVEL WATER with method blank but no MS/MSD when the only water samples are field blanks. 1-30g, i.e. 1-30mL is not enough as it represents one sample to check for cross-contamination of samples from adjacent decon in the water blanks.
- ③ data for 2-chloroanisole and 3,3'-dichlorobenzidine not usable. Response factors < 0.005 (extremely low). Response factors for acetate, bromoform, benzoic acid and 3-nitroanisole < 0.05. Associated data are not usable.

AR300941

FIRE IA

IN CRITERIA
 8940 (CE 801-CE 818)
 CAL 50115-

Instrument F9

Instrument F3

CCC #	SPCC #	EXCEPTION CRITERIA: Initial: >30% RSD Sampling: >25% RSD Min. Reps: 2005	5-22-86 Initial	5-22-86 7143	6-12-86 11:38	6-13-86 19:21	6-15-86 8:25	6-12-86 Initial	6-13-86 11:22	6-13-86 16:59	6-15-86 8:22
74-97-3 *		Chloromethane				-60	-51	61	28	34	-53
74-93-9		Bromomethane									
76-01-4 *		Vinyl Chloride									
76-00-3		Chloroethane				-47	-26				
76-08-2		Methylene Chloride									
67-64-1		Acetone	34		-35			40			
75-15-0		Carbon Disulfide			-38	-42	-43				
76-35-4 *		1, 1-Dichloroethane									
76-34-3 **		1, 1-Dichloroethane					-27				
166-60-5		Trans-1, 2-Dichloroethane									
67-66-3 *		Chloroform									
107-06-2		1, 2-Dichloroethane									
76-93-3		2-Butanone									.048 -36
71-55-6		1, 1, 1-Trichloroethane									
56-23-5		Carbon Tetrachloride									
109-06-4		Vinyl Acetate			-36	-35	-40	.038	.037	.032	.040
76-27-4		Bromodichloromethane						.049		.042	.047
76-87-5 *		1, 2-Dichloropropene									
10081-02-6		Trans-1, 3-Dichloropropene									
79-01-6		Trichloroethene									
124-48-1		Dibromochloromethane									
79-00-5		1, 1, 2-Trichloroethane									
71-43-2		Benzene									
10061-01-5		cis-1, 3-Dichloropropene									29
110-75-8		2-Chloroethylvinylether	.003 69	.001 -83	.001 -85	.001 -97	.003	.003 71	.005 45	.003	.003
75-25-2 **		Bromoform			39	44					
591-78-6		4-Methyl-2-Pentanone									
108-10-1		2-Hexanone									
127-18-4		Tetrachloroethene									
79-34-5 **		1, 1, 2, 2-Tetrachloroethane									-32
108-88-3 *		Toluene									
108-90-7 **		Chlorobenzene									
100-41-4 *		Ethylbenzene									
100-42-5		Styrene									
23		Total Xylenes									

8/14/85
 BK 30613A
 CE 801
 CE 803
 CE 805
 CE 807

8/14/85
 BK 30615
 CE 804
 CE 806
 CE 808
 CE 810
 CE 811

8/14/85
 BK 90615
 CE 804
 CE 806
 CE 808
 CE 810
 CE 811

8/14/85
 BK 90612
 CE 802
 CE 804
 CE 806
 CE 808
 CE 810
 CE 811

8/14/85
 BK 90612
 CE 802
 CE 804
 CE 806
 CE 808
 CE 810
 CE 811

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8/14/85
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8/14/85
 BK 90612
 CE 802
 CE 804
 CE 806
 CE 808
 CE 810
 CE 811

000942

CASE: 6040
LAB: CAL

INSTRUMENT FID

FIGURE 40
(1 of 2)

Validation Summary
Page 3 of 7

LCC # SPCC #	EXCEPTION CRITERIA: Initial Cal. 730% RSD Continuing 725% RSD Final 720% RSD	5-19-86	6-13-86	6-16-86	6-16-86	6-17-86	6-25-86
		Initial	9:10	Initial	19:05	6:43	Initial
108-86-2 *	Phenol						
111-44-4	Isol-2-Chloroethoxybenzene						
95-87-8	2-Chlorophenol						
841-73-1	1,3-Dichlorobenzene						
108-46-7 *	1,4-Dichlorobenzene						
100-51-6	Benzyl Alcohol		-49				
95-80-1	1,2-Dichlorobenzene						
95-48-7	2-Methylphenol		-32				
39838-32-9	Isol-2-chloroethoxybenzene						
108-44-5	4-Methylphenol		-29				
621-64-7	N-Nitroso-Di-n-Propylamine		-32				
87-72-1	Hexachlorocyclopentadiene						
98-95-3	Nitrobenzene						
78-59-1	Isophenol						
98-75-5 *	2-Nitrophenol						
108-67-9	2,4-Dimethylphenol		-36				
86-86-0	Benzic Acid (2)	34					
111-81-1	Isol-2-Chloroethoxybenzene		-27				
120-83-2 *	2,4-Dichlorophenol						
120-82-1	1,2,4-Trichlorobenzene						
81-20-3	Naphthalene						
108-47-8	4-Chloroaniline		-37				
87-48-3 *	Hexachlorobutadiene						
88-50-7 *	4-Chloro-2-Methylphenol						
81-67-6	2-Methylnaphthalene						
77-47-4 *	Hexachlorocyclopentadiene						
88-06-2 *	2,4,6-Trichlorophenol						
86-86-4	2,4,5-Trichlorophenol (2)						
81-58-7	2-Chloronaphthalene						
88-74-4	2-Nitroaniline (2)						
131-11-3	Dimethyl Phthalate						
208-96-8	Acenaphthylene						
99-08-2	3-Nitroaniline (2)		-47				
53-33-9 *	Acenaphthene						
81-28-8 *	2,4-Dichlorophenol (2)						
100-02-75 *	4-Nitrophenol (2)						
122-84-9	Oxanefuran						
121-14-2	2,6-Dinitrotoluene						
808-20-2	2,6-Dinitrotoluene						
84-66-2	Dithyophthalate						
7006-72-3	4-Chlorophenyl-phenyl ether						
86-73-7	Fluorene						
100-01-4	4-Nitroaniline (2)		-43				
834-82-1	4,6-Dinitro-2-Methylphenol (2)		26				
86-30-6 *	N-Nitrosodiphenylamine (1)						
101-55-3	4-Bromophenyl-phenyl ether						
118-74-1	Hexachlorobenzene						
87-86-5 *	Pentachlorophenol (2)						
88-01-8	Phenanthrene						
120-12-7	Anthracene						
84-74-2	Di-n-Butylphthalate						
208-44-0 *	Fluoranthene						
129-00-0	Pyrene						
88-48-7	Butylbenzylphthalate		-45				
81-84-1	3,3-Dichlorobenzidine (2)	R	R	R	R	R	R
86-86-3	Benzal Anthracene						
117-81-7	Isol-2-Ethylhexylphthalate		-45				
218-01-8	Chrysene						
117-84-0 *	Di-n-Octyl Phthalate						
108-96-2	Benzofluoranthene						
207-08-9	Benzofluoranthene						
80-32-8 *	Benzofluoranthene						
133-38-5	Indene 1,2,3-epoxide		-26				
83-70-3	Diene, n, Anthracene						
181-24-2	Benzofluoranthene						

(1) Cannot be separated from diphenylamine

R - unusable data,
minimal response
(<0.005)

CE801
MS
MSD

CE802

CE803
CE804
CE805
CE806
CE807
CE808

CE818

} Sample 300943
Affected

CASE: 6040
LAB: CAL

Instrument F82F9

Validation Summary
page 4 of 7

CCC # SPCC #X	EXCEPTION CRITERIA: Initial Calc. 7302 RSD Continuing 25% RPD Portfolio RF 0.05	page 4 of 4					
		6-18-86 Initial	6-19-86 8.05	6-19-86 16:33	6-20-86 Initial	6-23-86 9:54	6-24-86 7:44
100-06-2 *	Phenol						
111-44-4	bis(2-Chloroethyl) Ether						
95-57-9	2-Chlorophenol						
541-72-1	1,3-Dichlorobenzene						
106-46-7 *	1,4-Dichlorobenzene						
100-51-8	Benzyl Alcohol						
95-50-1	1,2-Dichlorobenzene						
95-48-7	2-Methylphenol						
39538-32-9	bis(2-chloroisopropoxy) Ether						
106-46-5	4-Methylphenol						
821-64-7	N-Nitroso-D,n-Propylene						
67-72-1	Mesochloroethane						
95-95-3	Nitrobenzene						
78-59-1	Isochloroethane		26				
95-75-5 *	2-Nitrophenol						
106-67-9	2,4-Dimethylphenol						
65-65-0	Benzoic Acid (2)	32	-35	-33	33	.02	-65
111-91-1	bis(2-Chloroethyl) Methane			27			
120-83-2 *	2,4-Dichlorophenol						
120-82-1	1,2,4-Trichlorobenzene						
91-20-3	Naphthalene						
106-47-8	4-Chloroaniline						
87-68-3 *	Mesochlorobutadiene						
59-50-7 *	4-Chloro-3-Methylphenol						
91-57-6	2-Methylnaphthalene						
77-47-4 *	Mesochlorocyclohexadiene		-34		31		
68-05-2 *	2,4,6-Trichlorophenol						
95-95-4	2,4,6-Trichlorophenol (2)		-44				
91-58-7	2-Chloronaphthalene						
85-74-4	2-Nitroaniline (2)						
131-11-3	Dimethyl Phthalate						
206-98-8	Aconaphthylene						
99-09-2	3-Nitroaniline (2)		-41	-47			
83-32-8 *	Aconaphthylene						
51-28-6 *-*	2,4-Dinitrophenol (2)			-34			
100-02-75 *	4-Nitrophenol (2)		-29	-31			
132-84-9	Dibenzofuran						
121-14-2	2,4-Dinitrotoluene	53	-28		51		
206-20-2	2,6-Dinitrotoluene						
84-66-2	Dichlorophthalate		-33				
7006-72-3	4-Chlorophenyl-phenylether						
84-73-7	Fluorene						
100-01-8	4-Nitroaniline (2)		-28	-53		-56	
834-52-1	4,6-Dinitro-2-Methylphenol (2)				73		
95-30-6 *	N-Nitrosodiphenylamine (1)						
101-55-3	4-Bromophenyl-phenylether						
118-74-1	Mesochlorobenzene						
87-66-5 *	Perchlorophenol (2)						
85-01-6	Phenanthrene						
120-12-7	Anthracene						
84-74-2	O-n-Butylphthalate		-37				
206-44-0 *	Fluoranthene						
129-00-0	Pyrene						
55-68-7	Butylbenzylphthalate	33	-39	26			
91-84-1	3,3-Dichlorobenzoic acid (1)	R	R	R	R	R	
54-55-3	Benzo[a]Anthracene						
117-81-7	bis(2-Ethoxymethyl) Phthalate	31	-43				
218-01-9	Chrysene						
117-84-0 *	O,n-Octyl Phthalate						
206-59-2	Benzo[b]Fluoranthene						
207-08-9	Benzo[k]Fluoranthene						
50-32-8 *	Benzo[e]Pyrene						
193-39-6	Indene(1,2,3-cd) Pyrene						
53-70-3	Indeno[1,2,3-cd] Anthracene						
191-24-2	Benzo[a,h,i]Perylene						

(1) Cannot be separated from diphenylamine

R = unusable data,
minimal response
(< 0.002)

ne. E809
VIB
← 2035 MBA

CE810
CE811

CE812
CE813
CE814

CE 815
CE 816
CE 817
CE 818

7 samples
afflicted AR300944

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

CONTRACT NO.: 68-01-6958

CONTRACTOR CAL

CASE NO. 1 6040

MEDIUM LEVEL

LOW LEVEL X

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/kg)	CONC. MS	% REC	CONC. MSD	% REC	QC LIMITS* MPD RECOVERY
HQA SND SAMPLE NO. CE 802	1,1-Dichloroethane	52.1	59.5	114	59.2	114	59-172
	Trichloroethane	52.1	53	102	53.2	102	62-137
	Chlorobenzene	52.1	54.1	104	53.4	102	40-133
	Toluene	52.1	62.3	120	62.3	120	59-139
	Benzene	52.1	57.2	110	57.6	111	66-142
B/N SND SAMPLE NO. CE 801	1,2,4-Trichlorobenzene	2270	1280	56	1250	55	38-107
	Acenaphthene	2270	1700	75	1590	70	31-137
	2,4-Dinitrotoluene	2270	2140	94	2220	42	28-89
	Pyrene	2270	3070	94	3590	151	35-142
	N-Nitrosodi-n-Propylamine	2270	1680	74	1590	70	41-126
ACIB SND SAMPLE NO. CE 801	1,4-Dichlorobenzene	2270	1270	56	1170	52	28-104
	Pentachlorophenol	4550	1530	34	3300	73	17-109
	Phenol	4550	3370	74	2860	63	26-90
	2-Chlorophenol	4550	3170	70	2800	62	25-102
	4-Chloro-3-Methylphenol	4550	4390	96	4270	94	26-103
PEST SND SAMPLE NO. CE 802	6-Nitrophenol	4550	4910	108	5060	129	11-114
	Lindane	27.9	21.9	78	22.9	82	46-127
	Heptachlor	27.9	24	86	25	90	35-130
	Aldrin	27.9	22.9	82	24	86	34-132
	Dieldrin	69.6	58.3	84	61.5	88	31-134
CE 802	Endrin	69.6	66.7	96	68.8	99	42-139
	4,4-DDT	69.6	68.8	99	72.9	105	23-134

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS

RPO: VOA 8 out of 5 ; outside QC limits
B/N 8 out of 6 ; outside QC limits
ACIB 1 out of 5 ; outside QC limits
PEST 1 out of 6 ; outside QC limits

RECOVERY: VOA 8 out of 10 ; outside QC limits
B/N 8 out of 12 ; outside QC limits
ACIB 1 out of 10 ; outside QC limits
PEST 1 out of 12 ; outside QC limits

Comments:

FORM 111

7/85

04

AR 300945

AR 300945

METHOD BLANK SUMMARY

CASE NO. 6040 REGION: III CONTRACTOR: CALIFORNIA ANALYTICAL LABORATORIES, INC CONTRACT NO. 68-01-6958

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (ISL. TIC OR UNKNOWN)	CONC.	UNITS	CRDL
VWKC0612	6/12/86	VDA	SOIL	LOW	P9	75-09-2 78-93-3	ACETONE 2-BUTANONE L-ALANINE 2-PENTANONE	15 18 3.9 1.4	UG/KG UG/KG UG/KG UG/KG	10 10 - -
VWKC0613	6/13/86	VDA	SOIL	LOW	F3	75-09-2 78-93-3	METHYLENE CHLORIDE 2-BUTANONE	1.3 22 16	UG/KG UG/KG UG/KG	5 10 10
VWKC0613A	6/13/86	VDA	SOIL	LOW	F3	75-09-2 78-93-3	METHYLENE CHLORIDE ACETONE 2-BUTANONE CHLOROFORM	1.4 20 19 1.3	UG/KG UG/KG UG/KG UG/KG	5 10 10 5
VWKC0613B	6/13/86	VDA	SOIL	LOW	P9	75-09-2 78-93-3	METHYLENE CHLORIDE ACETONE 2-BUTANONE	1.0 13 18	UG/KG UG/KG UG/KG	5 10 10
VWKC0615	6/15/86	VDA	SOIL	LOW	F3	78-93-3	ACETONE 2-BUTANONE	15 26	UG/KG UG/KG	10 10
VWKC0615	6/15/86	VDA	SOIL	LOW	P9	78-93-3	ACETONE 2-BUTANONE	16 20	UG/KG UG/KG	10 10
L2052MB	6/19/86	ABM	SOIL	LOW	P8	117-81-7 84-74-2	BIS(2-ETHYLNEXTL)PHTHALATE DI-N-BUTYLPHTHALATE	59 36	UG/KG UG/KG	330 330
L2052MB	6/25/86	ABM	SOIL	LOW	F10	84-74-2	DI-N-BUTYLPHTHALATE	35	UG/KG	330
L2052MB	6/13/86	ABM	SOIL	LOW	F10	84-74-2	DI-N-BUTYLPHTHALATE	34	UG/KG	330

COMMENTS:

FORM IV

7/85

03
AR300946

t to 9 d hours

PESTICIDE EVALUATION STANDARDS SUMMARY

Summary page 7 of 7
(FORM VIII)

CASE NO.: 6040 REGION : 3
CONTRACT NO: 68 01 6958
DATE OF ANALYSIS: 7-1-86

LABORATORY: CALIFORNIA ANALYTICA
GC COLUMN: MIXED PHASE QUANTITA
INSTRUMENT ID: 13

EVALUATION CHECK FOR LINEARITY

PESTICIDE	CALIB(A)	CALIB(B)	CALIB(C)	% RSD	**
ALDRIN	206800	219200	204200	3.8	
ENDRIN	47440	50920	46580	4.8	
DDT	20880	23600	23180	6.5	
DECD	18720	17980	18470	2.0	

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN
% BREAKDOWN EXPRESSED AS TOTAL DEGRADATION (MAXIMUM = 20%)

EVAL MIX B 72 HOUR	LABORATORY ID#	TIME OF ANALYSIS	ENDRIN	4,4'-DDT	COMBINED
EVAL MIX B	STD B	1532	0	0	----
EVAL MIX B	STD B	0313	0	13	----
EVAL MIX B	STD B	2200	0	28	----
EVAL MIX B	STD B	0617	0	27	----

** = 10% MAXIMUM FOR QUANTITATION ONLY

4,4'-DDT / Endrin Breakdown

2172

AR300947

Date Review Completed 10-10-86Case No. 6040 SAS No. _____Site Name Kane + Lombard

Sample Nos. _____

CE819-CE829(see also CE801-CE818)
Lab: CALContract Lab IT/CorrutoContract No. 68-01-6962Lab DPO (IX) Terry StumpReviewer Dianne S. Cherryfrom Region TIL Phone 215-524-0180
FTS (WESTON)

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid				
aqueous	<u>11</u>			<u>2 field blanks, 1 trip blank</u>
other				

VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--BFB	☒			
Initial Calibration	☒			<u>Summary of non-SPCC and non-CCC</u> <u>exceeding criteria in Figure 1A (attached)</u>
Continuing Calibration	☒			
Surrogate Recovery				
Matrix Spikes				
Reagent Blanks	☒	☒		<u>methylene chloride, acetone > CRCL, but < 5X</u>
Holding times				

SEMI-VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--DFTPP	☒			
<u>(2)</u> Initial Calibration	☒			<u>Summary of non-SPCC and non-CCC</u> <u>exceeding criteria in Figure 1B (attached)</u>
Continuing Calibration	☒	<u>1</u>	<u>1</u>	
Surrogate Recovery	☒			
Matrix Spikes	☒			
Reagent Blanks	☒			
Holding times	☒			

PESTICIDES	OK	FYI	ACTION	COMMENTS
Instrument Performance	☒			
Initial Calibration	☒			
Continuing Calibration	☒			
Surrogate Recovery	☒			
Matrix Spikes	☒			
Reagent Blanks	☒			
Holding times	☒			

OVERALL CASE	OK	FYI	ACTION	COMMENTS
Compound Identification	☒		<u>(2)</u>	
Data Completeness	☒			

REVIEWER'S COMMENTS:

- ① data for 3-nitroaniline unusable due to poor instrument response (0.026 response factor) - possible false negatives
② lab does not meet contract required detection limit for BNA

*DOCUMENTATION ATTACHED (see following pages)

AR300948

LIBRATION CRITERIA
SE: 6040
18: 17/counts

FIGURE 1A

[Organic Data Validation
Summary (page 2 of 4)]

INSTRUMENT GC/MSA

EXCEPTION CRITERIA:		6-11-86 INITIAL	6-11-86 21:14	6-12-86 9:35	6-13-86 4:48				
CC *	Initial: >20% RSD								
PLC **	Centigrading: >25% D								
	Alt. Ref: 0.05								
07-3 **	Chloromethane		-53	-27	-34				
83-9	Bromomethane			36					
01-4 *	Vinyl Chloride								
00-3	Chloroethane								
08-2	Methylene Chloride								
64-1	Acetone								
15-0	Carbon Disulfide								
35-4 *	1,1-Dichloroethane								
34-3 **	1,1-Dichloroethane								
6-80-5	Trans-1,2-Dichloroethane								
66-3 *	Chloroform								
17-06-2	1,2-Dichloroethane			-200					
193-3	2-Butanone	0.035	0.037	4034	97	0.032			
55-6	1,1,1-Trichloroethane								
123-5	Carbon Tetrachloride			60					
8-06-4	Vinyl Acetate			-84					
27-4	Bromodichloromethane								
187-5 *	1,2-Dichloropropane								
1061-02-6	Trans-1,3-Dichloropropene								
1-01-6	Trichloroethane								
4-48-1	Dibromochloromethane								
100-5	1,1,2-Trichloroethane								
43-2	Benzene			-75					
1061-01-5	cis-1,3-Dichloropropene			64					
0-75-6	2-Chloroethylvinylether								
25-2 **	Bromoform								
11-78-6	4-Methyl-2-Pentanone			-29					
18-10-1	2-Hexanone			39					
17-18-4	Tetrachloroethane								
334-5 **	1,1,1,2,2-Tetrachloroethane								
18-88-3 *	Toluene								
18-90-7 **	Chlorobenzene								
10-41-4 *	Ethylbenzene								
10-42-5	Styrene								
	Total Xylenes								

Blank 010
CE819
CE820
CE822
CE824

Blank 012
CE825
-CE829

Blank 014
CE821
CE823
CE825MS/MSD

AR 300949

CCC X SPCC X	EXCEPTION CRITERIA: Initial Calib 7302 RSD Continuing 7352 RPD Finalium RF 0.05	6-11-86	6-24-86	7-2-86	7-2-86	7-16-86	7-16-86	7-17-86			
		Initial	15:50	INITIAL	16:11	INITIAL	18:15	18:00			
108-95-2 *	Phenol										
111-44-4	Isr. 2-Chloroethyl Ether										
95-87-8	2-Chlorophenol										
541-73-1	1, 3-Dichlorobenzene										
108-46-7 *	1, 4-Dichlorobenzene										
100-91-6	Benzyl Alcohol										
95-80-1	1, 2-Dichlorobenzene										
95-48-7	2-Methylphenol										
39838 32-8	Isr. 2-chloroethoxyethyl Ether		-50								
108-44-5	4-Methylphenol										
821-84-2 *	N-Nitroso-Di-n-Propylamine										
87-72-1	Hexachloroethane										
98-95-3	Nitrobenzene										
78-59-1	Isophrene										
98-75-5 *	2-Nitrophenol										
106-87-9	2, 4-Dimethylphenol										
85-85-0	Benzoic Acid (2)										
111-91-1	Isr. 2-Chloroethyl Methane										
120-83-2 *	2, 4-Dichlorophenol										
120-82-1	1, 2, 4-Trichlorobenzene										
91-20-3	Naphthalene										
108-47-8	4-Chloroaniline			50	-50						
87-88-3 *	Hexachlorobutadiene										
88-50-7 *	4-Chloro-3-Methylphenol										
91-57-6	2-Methylnaphthalene										
77-47-4 *	Hexachlorocyclopentadiene										
88-06-2 *	2, 4, 6-Trichlorophenol										
95-96-4	2, 4, 6-Trichlorophenol (2)										
91-58-7	2-Chloronaphthalene										
88-74-4	2-Nitroaniline (2)										
131-11-3	Dimethyl Phthalate										
208-98-8	Acenaphthylene										
99-08-2	3-Nitroaniline (2)			47	.026 87		-74	-42			
93-32-9 *	Acenaphthene										
51-28-5 *	2, 4-Dinitrophenol (2)							-29			
100-02-7 *	4-Nitrophenol (2)		38								
132-84-9	Debenzylurea										
121-14-2	2, 4-Dinitrotoluene										
808-70-7	2, 6-Dinitrotoluene										
84-66-2	Diethylphthalate										
7006-72-3	6-Chlorophenyl-phenylether										
86-73-7	Fluorene										
100-01-8	4-Nitroaniline (2)	31	57	46			47				
534-52-1	4, 6-Dinitro-2-Methylphenol (2)										
86-30-6 *	N-Nitrosodiphenylamine (1)										
101-85-3	4-Bromophenyl-phenylether										
118-74-1	Hexachlorobenzene										
87-86-5 *	Pentachlorophenol (2)										
85-01-8	Phenanthrene										
120-12-7	Anthracene										
84-74-2	Di-n-Butylphthalate										
208-44-0 *	Fluoranthene										
129-00-0	Pyrene										
85-68-7	Butylbenzylphthalate										
91-84-1	3, 3-Dichlorobenzidine (1)		56	72	-54		27	36			
86-85-3	Benz[a]Anthracene										
117-81-7	Isr. 2-Ethylhexyl Phthalate										
218-01-9	Chrysene										
117-84-0 *	Di-n-Octyl Phthalate										
206-89-2	Benz[b]Fluoranthene										
207-08-9	Benz[k]Fluoranthene										
20-32-8 *	Benz[e]Pyrene										
193-39-8	Indenol, 2, 3-di-Pyrene										
83-70-3	Debenzo, h, Anthracene										
181-24-2	Benz[a, h, i]Pyrene										

Affected
Samples

CE819-
CE822
CE819MS
MSD

CE823-
CE829

MB0707B1
CE820 RE
CE821 RE
CE825 RE
CE826 RE
CE827 RE
CE828 RE
CE829 RE

AR300950

METHOD BLANK SUMMARY

Case #/SAS #: 6040 Laboratory: II/Cerritos Contract #: 68-01-6962
 Level: Low Quality Control Report Job Number: 37137
 Matrix: Water
 QC Report #: 6962-323

Circle Units: ug/Kg. (ug/L)

Sample #	Lab ID (Run #)	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HET, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
167000 BLANK	LOWEN 010	6/11/86	VOA	Water	Low	GCMSA	75-09-2	Methylene Chloride	22	ug/L	54
"	"	"	"	"	"	"	100-88-3	Toluene	18	"	104
"	"	"	"	"	"	"	100-88-3	Toluene	1 J	"	54
167000 BLANK	LOWEN 012	6/12/86	"	"	"	"	75-09-2	Methylene Chloride	21	"	54
"	"	"	"	"	"	"	100-88-3	Toluene	13	"	104
"	"	"	"	"	"	"	100-88-3	Toluene	1 J	"	54
167000 BLANK	LOWEN 014	6/13/86	"	"	"	"	75-09-2	Methylene Chloride	3 J	"	54
"	"	"	"	"	"	"	100-88-3	Acetone	13	"	104
"	"	"	"	"	"	"	100-88-3	Toluene	1 J	"	54
16609PI	162-1033	6/12/86	Pest	"	"	GC#AS	—	NONE FOUND	0.05u	"	—
16609PI	181-1007	6/30/86	"	"	"	GC#88	—	NONE FOUND	0.05u	"	—
10506BS	3737E31	6/24/86	BNA	"	"	GCMSJ	—	NONE FOUND	20u	"	—

Comments:

Notes: For all GCMS analyses the Instrument ID Code is included in the Lab ID (Run #).
 Inst. ID Code is character 5 for Tune, Standards, and Blanks, character 7 for Samples.

Instrument Manuf. Finn. Finn. HP Finn. Finn.
 Instrument Model OWA-1 OWA-2 OWA-3 5988A 4021 4500
 1020A 1020B

Inst. ID Code A B C H I J

300951



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-922-3752

DATE: 29 October 1986
SUBJECT: Region III CLP Data QA Review
FROM: Patricia J. Krantz (3ES20) *PJK*
DPO, Region III
TO: Duane A. Geuder, QAO (WH-548A)
OERR

Attached is a Region III CLP Data Review done by reviewers at
Roy F. Weston, Inc.:

Case No.: 6162 (Inorganic)
(Revision A, 10-28-86) Site: Kane & Lombard

Laboratory: Versar Reviewer: *Alannie S. Therry*
Dianne S. Therry

Attachment

cc: Gareth Pearson, EMSL-LV

Regional DPO: Pat Krantz, Region III

X Action FYI

AR300952

WESTON

USEPA - Region III
Inorganic QA Data Review
Page 1 of 4
Revision A, 10/28/86

Case #/Site I.D.: 6162 Kane & Lombard
Sample Numbers: MCF601-MCF615, MCG460-MCG470

Site Manager: Charles Kufs

Data Review Team: Dianne Therry, Nancy Myers
Review Completed: October 7, 1986

INTRODUCTION

The set of samples for Case 6162 contained twenty-six soil samples which were analyzed through the Contract Laboratory Program Routine Analytical Services by one laboratory.

This data was reviewed according to the National Functional Guidelines for Evaluating Inorganic Analyses. All data has been validated with regard to usability. The methods used by the Contract Lab Program (CLP) must be evaluated by each individual user as to whether the scope, precision and accuracy meet the needs of the project.

The laboratory performed the analyses in compliance with CLP, including the required quality control. Holding times were met for all metals, however, seven cyanide samples missed holding times. Some lab contamination was evidenced for magnesium, however, the most significant problems affecting usability are associated with the sample matrix. Problems associated with data usability are discussed in the following section. The data summary has been annotated with the appropriate qualifier codes.

QUALIFIERS: Soil Samples

1. Magnesium results in samples MCF604-MCF615 have been designated as qualitatively questionable (J) due to blank contamination. Laboratory blank analyses revealed the presence of magnesium at concentrations significant enough to question the reported results.
2. Laboratory duplicate analysis showed variable results for aluminum (42% RPD), calcium (60% RPD), and copper (39% RPD). The following sample results were qualified as quantitatively questionable (J). Although the qualitative presence of the analytes were confirmed, the reported results may not reflect the average concentration of analyte in the respective samples.

AR300953

SURFACE WATER ANALYSIS

AR300954

1

SUMMARY OF CONCENTRATIONS OF ORGANIC AND INORGANIC COMPOUNDS
IN SURFACE WATER SAMPLES (UG/L)

SAMPLE NUMBER	SAMPLE MEDIA	VINYL CHLORIDE	TRANS 1,2 DICHLOROETHENE	TOLUENE	TOTAL ALUMINUM
SW-1	SURFACE_WATER	-	-	1	868
SW-2	SURFACE_WATER	-	-	2	1,010
SW-3	SURFACE_WATER	-	-	1	145
SW-4	SURFACE_WATER	-	-	3	1,010
SW-5	SURFACE_WATER	67	800	14	126
SW-6	SURFACE_WATER	-	770	15	119

SAMPLE NUMBER	TOTAL BARIUM	TOTAL CALCIUM	TOTAL CHROMIUM	TOTAL COBALT	TOTAL COPPER	TOTAL IRON	TOTAL LEAD	TOTAL MAGNESIUM
SW-1	32	29,800	6.2	-	6.2	438	-	6,960
SW-2	33	30,100	3.1	-	5.5	352	-	6,720
SW-3	54	43,600	10.0	5.3	8.9	1,700	12.0	10,100
SW-4	27	26,600	6.2	-	6.8	176	-	5,940
SW-5	49	76,600	7.1	5.6	20.0	2,680	6.2	14,800
SW-6	49	74,800	5.5	3.6	19.0	2,600	11.0	14,400

SAMPLE NUMBER	TOTAL MANGANESE	TOTAL NICKEL	TOTAL POTASSIUM	TOTAL SILVER	TOTAL SODIUM	TOTAL VANADIUM	TOTAL ZINC
SW-1	89	-	3,330	-	20,700	3.4	46
SW-2	78	-	3,610	4.4	20,400	2.7	17
SW-3	792	-	6,330	-	42,800	2.4	42
SW-4	29	-	2,640	-	15,900	2.4	19
SW-5	541	50	4,910	3.3	35,800	3.7	160
SW-6	537	46	5,040	-	36,600	3.7	160

AR300955

SOIL SAMPLE ANALYSIS

AR300956

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR ALL SOIL SAMPLES--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
CHCL3	CHLOROFORM	6	27.8	1.0	140.0
TDCE	TRANS-1,2-DICHLOROETHENE	2	4.0	2.0	6.0
TCE	TRICHLOROETHENE	1	2.0	2.0	2.0
PENT	4-METHYL-2-PENTANONE	3	603.3	5.0	1800.0
BENZENE	BENZENE	1	2.0	2.0	2.0
CLBENZ	CHLOROBENZENE	7	51.3	3.0	180.0
TOLUENE	TOLUENE (METHYL BENZENE)	36	489195.1	1.0	1700000.0
XYLENE	TOTAL XYLENES	7	255878.9	2.0	1400000.0
ETHYL	ETHYLBENZENE	6	80047.0	3.0	360000.0
CD	CARBON DISULFIDE	12	30.4	2.0	310.0
DCB	1,4-DICHLOROBENZENE	1	570.0	570.0	570.0
DICLBZ	3,3-DICHLOROBENZIDINE	1	120000.0	120000.0	120000.0
PHENOL	PHENOL (HYDROXY BENZENE)	4	151.3	40.0	410.0
MEIPHEN	4-METHYLPHENOL	4	78.8	55.0	110.0
TCP	2,4,6-TRICHLOROPHENOL	1	53.0	53.0	53.0
PCP	PENTACHLOROPHENOL	4	527.5	140.0	1300.0
NITRO	4-NITROPHENOL	1	570.0	570.0	570.0
DNT	2,6-DINITROTOLUENE	1	660.0	660.0	660.0
NAPH	NAPHTHALENE	17	433.2	35.0	4000.0
MNAPH	2-METHYLNAPHTHALENE	7	124.4	42.0	320.0
ISO	ISOPHORONE	15	3707.9	47.0	27000.0
ACENA	ACENAPHTHENE	7	914.0	62.0	5700.0
ACEN	ACENAPHTHYLENE	7	250.3	34.0	740.0
ANTH	ANTHRACENE	19	2088.1	33.0	20000.0
BAN	BENZO (A) ANTHRACENE	33	3516.9	32.0	52000.0
DA	DIBENZO (A,H) ANTHRACENE	6	1378.3	150.0	6900.0

AR300957

SUMMARY OF REPORTABLE CONCENTRATIONS OF CONTAMINANTS IN SOIL
(ORGANIC COMPOUNDS IN UG/KG, INORGANIC COMPOUNDS IN MG/KG)

--SUMMARY STATISTICS FOR ALL SOIL SAMPLES--

VARIABLE	LABEL	N	MEAN	MINIMUM VALUE	MAXIMUM VALUE
PHEN	PHENANTHRENE	33	4174.0	34.0	72000.0
CHRYSENE	CHRYSENE (BENZO (A) PHENANTHRENE)	33	3365.4	37.0	45000.0
PYRENE	PYRENE (BENZO (D,E,F) PHENANTHRENE)	37	4421.0	32.0	84000.0
BAP	BENZO (A) PYRENE	30	2470.2	48.0	47000.0
IP	INDENO 1,2,3(C,D) PYRENE	24	1839.7	48.0	26000.0
FLUORENE	FLUORENE (2,3-BENZINDENE)	7	1917.1	60.0	6500.0
FLU	FLUORANTHENE	37	6123.9	28.0	120000.0
BF	BENZO (B,K) FLUORANTHENE	30	4551.3	71.0	81000.0
BGP	BENZO (G,H,I) PERYLENE	21	1969.7	41.0	25000.0
DIB	DIBENZOFURAN	7	1127.3	41.0	4000.0
DIMETH	DIMETHYL PHTHALATE	1	190.0	190.0	190.0
DIBUT	DI-N-BUTYL PHTHALATE	25	1065.0	30.0	9600.0
BP	BIS (2-ETHYLHEXYL) PHTHALATE	54	12143.3	44.0	270000.0
BBP	BUTYLBENZYL PHTHALATE	41	27925.0	44.0	940000.0
OCTYL	DI-N-OCTYL PHTHALATE	2	290.0	240.0	340.0
SODI	N-NITROSODIPHENYLAMINE	4	5300.0	1600.0	9300.0
DIELDRIN	DIELDRIN	2	46.5	45.0	48.0
DDE	4,4-DDE	1	63.0	63.0	63.0
DDD	4,4-DDD	1	160.0	160.0	160.0
DDT	4,4-DDT	4	65.8	24.0	92.0
CHLORDAN	CHLORDANE	6	359.3	23.0	1100.0
PCB1248	AROCHLOR 1248	10	3105.0	190.0	14000.0
PCB1254	AROCHLOR 1254	10	1453.1	61.0	7300.0
PCB1260	AROCHLOR 1260	1	1100.0	1100.0	1100.0
AL	TOTAL ALUMINUM	73	7315.2	1180.0	21300.0
AR	TOTAL ARSENIC	48	15.6	1.0	166.0

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<u>Analyte</u>	<u>Samples Affected</u>
Aluminum	MCF604-MCF615
Calcium	MCF604-MCF615
Copper	MCF604-MCF615

3. Due to low matrix spike recovery for arsenic (55%), antimony (63%), and lead (64%), reported results and detection limits may be biased low, and have been qualified as estimated (UJ or J) in the following samples. Actual values may be higher than reported.

<u>Analyte</u>	<u>Bias</u>	<u>Samples Affected</u>
Arsenic	25-65%	MCF604-MCF615
Antimony	17-37%	MCF601-MCF603 MCG460-MCG470
Lead	16-56%	MCF601-MCF603 MCG460-MCG470

4. Due to high matrix spike recovery for manganese (138%), nickel (303%), zinc (509%), and cadmium (127%), the following results have been qualified as estimated (J). Actual results may be lower than reported.

<u>Analyte</u>	<u>Bias</u>	<u>Samples Affected</u>
Manganese	18-58%	MCF604-MCF615
Nickel	Extremely High	MCF604-MCF615
Zinc	Extremely High	MCF604-MCF615
Cadmium	7-47%	MCF605, MCF607, MCF609-MCF612 MCF614

5. Due to no matrix spike recovery for lead (0%), reported results may be biased low, and have been qualified as estimated (J) in Samples MCF604-MCF615. Actual results may be higher than reported.

AR300959

6. Results for selenium and cyanide have been designated unusable (R) for the following samples. Due to very low matrix spike recovery (selenium 0% and cyanide 20%), the possibility of false negatives exists and the detection limits may be elevated over what is reported.

<u>Analyte</u>	<u>Sample Affected</u>
Selenium	MCF604-MCF611, MCF613-MCF615
Cyanide	MCF601-MCF603, MCG460-MCG464, MCG466, MCG468, MCG469

7. Results for selenium sample MCFG612 and results for cyanide samples MCG465, MCG467, and MCG470 have been designated as quantitatively questionable (J). Due to no recovery (0%) of the matrix spike for selenium and low recovery (20%) of the matrix spike for cyanide, actual results may be biased significantly low. The reported concentrations for these analytes are the minimum levels at which the analytes are present.
8. Results for cyanide samples MCF604-MCF615 have been qualified as quantitatively questionable (J or UJ) due to exceeded holding times. There is a possibility that false negatives may exist, and detection limits for these samples may be elevated.
9. Results for aluminum, barium, cadmium, calcium, chromium, copper, magnesium, manganese, nickel, sodium, and zinc for samples MCF604-MCF615 have been qualified as quantitatively questionable (J) due to possible chemical and physical interference. Results for diluted sample analysis for these analytes do not agree within 10%.

AR300960



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Inorganic QA Data Review
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SUMMARY

Metals and cyanide for all samples were successfully analyzed. Areas of concern with respect to data usability include:

- o Laboratory contamination for magnesium
- o Possible sample non-homogeneity indicated by results from lab duplicates for aluminum, calcium, and copper
- o Possible matrix interference indicated by results from matrix spike recoveries and ICP serial dilutions
- o Possibility of false negatives for selenium and cyanide

The text of this report has been formatted to address only those problem areas which affect the applications of the data to the site investigation. Documentation of these problems and any other observed areas of laboratory contractual noncompliance are included in a separate report sent to the laboratory's CLP Project Officer. If you have questions or comments on this data review, please contact Dianne Therry.

Enclosures

AR300961

Glossary: Qualifier Codes

The data summary contains the following qualifier codes:

- U - The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
- J - The associated numerical value is an estimated quantity because quality control criteria were not met.
- R - Quality control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.

AR300962

DATA SUMMARY

Case No. 616-2

Laboratory 7100001

Matrix soil

Units mg/kg

Pf 1-2
Rev: 1/87

EPA TR #	MCFL001	MCFL002	MCFL003	MCFL004	MCFL005	MCFL006	MCFL007	MCFL008	MCFL009	MCFL010	MCFL011	MCFL012	MCFL013	COMMENTS
Lab ID.	8624	8625	8626	9015	9016	9017	9018	9019	9020	9021	9022	9023	9024	
Aluminum	3150	6440	6280	9320	8420	11300	7200	9000	10100	10300	7030	14700	12000	matrix spike
Antimony		0.5	0.5											matrix spike
Arsenic	11	20	166	10	32	23	0.5	0.5	21	21	62	0.5	7.3	matrix spike
Barium	262	268	294	269	350	302	[46]	[96]	794	6370	1670	638	[86]	matrix spike
Beryllium	[64]	[13]	[20]	[1.5]	[1.7]	[2.2]	[2.1]	[.87]		[1.4]	[1.2]		[1.2]	matrix spike
Cadmium		5.0			4.4		3.5		89	10	19	4.1		matrix spike
Calcium	9360	2780	3660	41200	53800	11800	[152]	[120]	21000	25900	14600	56500	10600	matrix spike
Chromium	229	324	19	1190	277	813	373	16	85	1340	101	76	45	matrix spike
Cobalt	[79]	[16]	[11]	[18]	50	[76]	[16]	40	[18]	[20]	[24]	[6.6]	34	matrix spike
Copper	88	181	33	1140	409	44	[15]	50	781	119	76	333	39	matrix spike
Iron	12100	31400	23700	117000	83500	27300	60700	17000	53300	39500	65900	23400	30200	matrix spike
Lead	1040	583	23	224	549	482	18	26	2710	530	503	13600	194	matrix spike
Magnesium	[96]	[270]	[697]	6510	[2220]	[160]	[519]	[597]	[2140]	[2140]	3510	[2470]	[1590]	matrix spike
Manganese	138	701	44	762	669	101	132	248	534	361	1140	268	836	matrix spike
Mercury	0.30	1.2	0.30	0.28	0.40	0.30		0.21	1.1	0.23	0.32			matrix spike
Nickel	368	1060	32	1280	225	77	38	[24]	72	652	61	54	47	matrix spike
Potassium	[513]	[497]	[760]	[1480]	[1340]	[1010]	[1200]	[642]	[1100]	[1340]	[946]	[1230]	[820]	matrix spike
Selenium				R	R	R	R	R	R	R	R	23	R	matrix spike
Silver														
Sodium	[305]	[256]	[826]	[2450]	[2020]	[190]	[140]	[141]	[3230]	[915]	[933]	[339]	[131]	matrix spike
Thallium														
Tin	14	14		[24]	70				52	69	272	33		
Vanadium	30	109	89	40	55	78	71	[31]	[28]	79	[36]	155	37	
Zinc	189	10300	1410	532	825	522	65	65	2420	512	1020	1710	319	matrix spike
Cyanide	R	R	R	4	4	4	4	4	4	4	4	30.8	4	matrix spike
% Solids	81.1	84.1	73.4	68	57	73	79	82	77	70	68	81	77	matrix spike

AR300963

DATA SUMMARY

Case No. 6162

Laboratory Yancy

Matrix Soil

Units

mg/kg

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Rev 1/82

EPA TR #	MEF 614	MOF 615	MCG 460	MCG 461	MCG 462	MCG 463	MCG 464	MCG 465	MCG 466	MCG 467	MCG 468	MCG 469	MCG 470	COMMENTS
Lab ID.	9045	9096	8613	8614	8615	8616	8617	8618	8619	8620	8621	8622	8623	
Aluminum	11000 J	4110 J	5210	13300	6330	7490	8250	7280	10400	12500	1720	11400	7270	matrix spike
Antimony														matrix spike
Arsenic	46 J			9.3	56			8.3	8.0	9.8			6.9	matrix spike
Barium	307 J	[50] J	[96] J	184 J	203 J	[69] J	[67] J	146 J	178 J	159 J	[16] J	156 J	344 J	matrix spike
Beryllium	[.98] J	[.11]	[.81]	[1.4]	[.91]	[.67]	[.65]		[1.4]		[1.1]		[1.4]	matrix spike
Cadmium	5.1 J			4.2	[2.7] J		2.9	2.0	10	[3.1]			4.5	matrix spike
Calcium	11000 J	[1800] J	[269] J	50700	32400	15000	6010	3190	6190	11000	221000	[1870]	8220	matrix spike
Chromium	79 J	16 J	20 J	1990 J	153 J	137 J	24 J	95 J	101 J	93 J	[3.8] J	34 J	476 J	matrix spike
Cobalt	[5.4]	[9.3]	[16]	[27]	[12]	[11]	[7.7]	[8.0]	[11]	[9.4]	[2.3]	[11]	[22]	matrix spike
Copper	142 J	30 J	169	861	1400	95	136	103	78	100	[14]	44	134	matrix spike
Iron	22200	24300	14600	47700	27900	25600	15600	23500	30500	23900	2600	27500	36000	matrix spike
Lead	472 J	76 J	107 J	1140 J	569 J	96 J	141 J	316 J	232 J	312 J	45 J	401 J	5010 J	matrix spike
Magnesium	[956] J	[253] J	[448]	[2300] J	[1520] J	[1020]	[669]	[527]	[1360]	[1260]	4200	[619]	[1020]	matrix spike
Manganese	167 J	144 J	559	490	289	265	96	135	183	257	86	330	303	matrix spike
Mercury	1.6			0.42	0.92		0.16	0.16	0.64	1.4				matrix spike
Nickel	136 J	[19] J	[16]	1670	207	173	[12]	75	83	150		[17]	90	matrix spike
Potassium	[712]	[575]	[404]	[611]	[517]	[309]	[493]	[298]	[611]	[594]		[422]	[519]	matrix spike
Selenium		R			33									matrix spike
Silver					17				[1.9]					matrix spike
Sodium	[91] J	[88] J	[19] J	[200] J	[113] J	[101] J	[59] J	[223] J	[87] J	[122] J	[233] J	[40] J	[697] J	matrix spike
Thallium														matrix spike
Tin	[20]		[127]	[13]	36				[21]	[4]		[12]	31	matrix spike
Vanadium	348	33	34	64	43	[25]	31	48	79	62	[3.8]	44	62	matrix spike
Zinc	709 J	89 J	77	532	302	71	241	446	939	478	99	145	1440	matrix spike
Cyanide														matrix spike
% Solids	83	84.5	85.9	74.1	80.9	77.3	96.7	83.0	80.0	90.8	66.1	87.0	81.6	matrix spike

AR300964

Date Review Completed 10-9-86
 Case No. 6162 SAS No. _____
 Site Name Kane + Lombard
 Sample Nos. MCG 460 - MCG 470,
MCF 601 - MCF 603

Contract Lab Versar
 Contract No. _____
 Lab DPO Patricia Krantz
 Reviewer N. Myers
 from Region III Phone _____
 FTS _____

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid	✓			
aqueous				
other				

ICP	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks		1✓		Be [1.2] [1.4], Ca [6.8] [4.5], Fe [1.7]
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank		1✓		Ca [4.5], Fe [29.4], Mg [11], Zn [6.1]
Interference Check Sample	✓			
Lab Control Sample	✓			
Lab Duplicate		2✓		Al 28, Mg 21
Matrix Spike	✓			
Serial Dilution	✓			

FURNACE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks		1✓		As [5]
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank		1✓		Cd [4.3]
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		3✓		Sb 63, Pb 64
Duplicate Injections	✓			
Analytical Spike	✓			

MERCURY & CYANIDE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blank	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Duplicate	✓			
Matrix Spike		3✓	4	Cn- 20

REVIEWER'S COMMENTS:

1. results above IDC, but below CRDL - no action required.
2. value not within $\pm 20\%$ limit - no action required.
3. value not within $\pm 25\%$ limit - no action required.
4. cyanide results $< 30\%$ recovery, possible severe analytical deficiency, all data flagged.

AR300966

Date Review Completed 10-9-86

Case No. 6162 SAS No.

Site Name Kane + Lombard

Sample Nos. MCF604- MCF615

Contract Lab Versar

Contract No.

Lab DPO Patricia Krantz

Reviewer Nancy Myers

from Region III Phone

FTS

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid	✓			
aqueous				
other				

ICP	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks		1✓		Be [1.2] Fe [1.0] Mn [1.6] [2.0] K [3.12] [4.17] [5.55] Na [2.1]
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank		1✓		Mg [1.5]
Interference Check Sample	✓			
Lab Control Sample	✓			
Lab Duplicate		2✓		Al 42, Ca 60, Cu 39
Matrix Spike		3✓		Mn 138, Ni 303, Zn 509
Serial Dilution		5✓		Al 21, Ba 20, Cd 571, Ca 20, Cd 20 Cu 20, Mg 18, Mn 20, Ni 19, Na 10, Zn 19

FURNACE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		3✓	5	As 55, Cd 127, Pb 0, Se 0
Duplicate Injections	✓			
Analytical Spike	✓			

MERCURY & CYANIDE	OK	FYI	ACTION	COMMENTS
Holding Time		4✓	✓	Hg - OK, Cn - holding time missed.
Calibration Blank	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Duplicate	✓			
Matrix Spike	✓			

REVIEWER'S COMMENTS:

1. results were above IDL, but below CRDL - No action required.
2. value not within the $\pm 20\%$ limit - No action required.
3. value not within the $\pm 25\%$ limit - No action required.
4. cyanide missed holding time - Non compliant.
5. Values greater than $\pm 10\%$ acceptance window - no action required other than flagging of data.
6. Lead and selenium results $< 30\%$ recovery; possible severe analytical deficiency, all data flagged unusable (R).

AR300967

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

Kane - Ford

3C

DATE 8/18/86

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

2

1

LAB NAME: VERSAR, INC.
SOW 784

QC REPORT: 220
CASE NO. 8162
PROJECT NO.: 854.0000

SAMPLE NUMBERS

EPA NO.	LAB ID NO.	EPA NO.	LAB ID NO.
MCF604	9085	MCF605	9086
MCF606	9087	MCF607	9088
MCF608	9089	MCF609	9090
MC F610	9091	MC F611	9092
MC F612	9093	MC F613	9094
MC F614	9095	MC F615	9096

COMMENTS: -----

ICP INTERELEMENT AND BACKGROUND CORRECTION APPLIED? YES.
CORRECTIONS APPLIED BEFORE GENERATION OF RAW DATA.

FOOTNOTES:

NR - NOT REQUIRED BY CONTRACT AT THIS TIME
FORM I:

VALUE - IF THE RESULT IS A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE CONTRACT REQUIRED DETECTION LIMIT, REPORT THE VALUE IN BRACKETS (I.E., [10]). INDICATE THE ANALYTICAL METHOD USED WITH P (FOR ICP/FLAME AA) OR F (FOR FURNACE).

U - INDICATES ELEMENT WAS ANALYZED FOR BUT NOT DETECTED. REPORT WITH THE DETECTION LIMIT VALUE (E.G., 10U).

E - INDICATES A VALUE ESTIMATED OR NOT REPORTED DUE TO THE PRESENCE OF INTERFERENCE. EXPLANATORY NOTE INCLUDED ON COVER PAGE.

S - INDICATES VALUE DETERMINED BY METHOD OF STANDARD ADDITION

R - INDICATES SPIKE SAMPLE RECOVERY IS NOT WITHIN CONTROL LIMITS.

* - INDICATES DUPLICATE ANALYSIS IS NOT WITHIN CONTROL LIMITS.

+ - INDICATES THE CORRELATION COEFFICIENT FOR METHOD OF STANDARD ADDITION IS LESS THAN 0.995

DF - DILUTION FACTOR

SD - SAMPLE USED FOR ICP SERIAL DILUTION

AR300968



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-922-3752

DATE: 19 January 1987
SUBJECT: Region III CLP Data QA Review
FROM: Patricia J. Krantz (3ES20) *PK*
DPO, Region III
TO: Duane A. Geuder, QAO (WH-548A)
OERR

Attached is a Region III CLP Data Review done by reviewers at
Roy F. Weston, Inc.:

Case No.: 6162 (Organic)
(Revision B, 1/87) Site: Kane & Lombard
Laboratory: CAL Reviewer: *Dianne S. Therry*
Dianne S. Therry

Attachment

cc: Gareth Pearson, EMSL-LV

Regional DPO: Kent Kitchingman, Region IX

 X Action FYI

AR300969

Case #/Site I.D.: 6162/Kane and Lombard
Sample Numbers: CE830-CE840, CE901-CE915

Site Manager: Charles Kufs

Data Reviewer: Dianne Therry *DT*
Review Completed: 10/3/86

Introduction

The set of samples for Case #6162 contained 26 soil samples which were analyzed through the Contract Laboratory Program (CLP) routine analytical services by one laboratory.

This data was reviewed according to the National Functional Guidelines for Evaluating Organic Analyses. All data has been validated with regard to usability. The method used by the CLP must be evaluated by each individual user as to whether the scope, precision, and accuracy meet the needs of the project.

The laboratory performed the analyses in compliance with CLP, including the required quality control. Instrument tune and calibration were within contract specifications. Laboratory contamination, and poor response leading to possible false negatives for 4 compounds, and tentative identification of PCB's and chlordane were the most significant problems in this data set. Problems associated with data usability are discussed in the following section.

Qualifiers

- 1) Laboratory blanks contained methylene chloride, acetone, 2-butanone, and di-N-butylphthalate at concentration significant enough to question the reported results for some of the samples. Consequently, associated results are considered artifacts of laboratory contamination. All reported values for the afore-mentioned compounds in this case have been qualified as not detected (U) and their quantification limit qualified as estimated (J) in the data summary.

AR300970

<u>Compound</u>	<u>Fraction</u>	<u>Samples Affected</u>
methylene chloride	VOA	All Samples
acetone	VOA	All Samples
2-butanone	VOA	All Samples
di-N-butylphthalate	BNA	CE830, CE834, CE837- CE840, CE902, CE903, CE906-CE908, CE910, CE912, CE913, CE915

- 2) The response factors during initial and/or continuing calibration for up to nine VOA compounds and ten BNA compounds were variable. The sample results and detection limits have been qualified as estimated (J or UJ) for the affected compounds in the data summary.
- 3) Response factors were very low (<0.05) for vinyl acetate, bromodichloromethane, 2-chloroethylvinylether, and 3,3'-dichlorobenzidine. The sample results have been qualified as unsable (R) for the affected compounds in the data summary.

<u>Compound</u>	<u>Fraction</u>	<u>Samples Affected</u>
vinyl acetate	VOA	All Samples
bromodichloromethane	VOA	CE830, CE832-CE836
2-chloroethylvinylether	VOA	All Samples
3,3'-dichlorobenzidine	BNA	All Samples

Failure to detect a compound under this condition does not confirm its absence in the samples. If these compounds are critical to this site, follow-up analysis may be necessary.

- 4) Although not present in associated blank results, the reported results for the following phthalate compounds, which are below the contract-required detection limit, may be artifacts of sporadic laboratory contamination. The following samples are affected:

<u>Compound</u>	<u>Sample Number</u>
dimethylphthalate	CE838
bis(2-ethylhexyl)phthalate	CE834, CE906, CE911, CE912
di-n-octylphthalate	CE909

AR300971

- 5) The reported results for benzo(b)fluoranthene in all samples may be either this compound and/or benzo(k)fluoranthene. Examination of raw data revealed that the laboratory could not separate these compounds (both compounds exhibited similar retention times and mass spectra). The data summary has been altered to reflect these findings.
- 6) Comparison of laboratory replicate data for sample CE904 revealed comparable results for all compounds except some of the polynuclear aromatics and bis(2-ethylhexyl)phthalate, as shown in the following table. Results reported for CE904 are 10-20 times higher than those reported in the respective matrix spike and matrix spike duplicate (MS/MSD) samples.

<u>Compound</u>	<u>CE904</u> <u>(ug/kg)</u>	<u>CE904MS</u> <u>(ug/kg)</u>	<u>CE904MSD</u> <u>(ug/kg)</u>
phenanthrene	72000	3400 J	3900 J
anthracene	20000	6600 U	8000
fluoranthene	120000	7800	8900
benzo(a)anthracene	52000	6200 J	3300 J
chrysene	45000	4400 J	4300 J
benzo(b&k)fluoranthene	81000	6400 J	5200 J
benzo(a)pyrene	47000	4600	2700 J
indeno(1,2,3-cd)pyrene	26000	6600 U	6600 U
benzo(ghi)perylene	25000	6600 U	6600 U
bis(2-ethylhexyl)phthalate	270000	150000	1400000

The sample results have been qualified as estimated (J) in the data summary, since reported results do not appear to reflect the average concentration of these compounds present in the sample.

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- 7) Chromatographic evidence, supported by reported tentatively identified compounds (TIC's) from the library search, indicates the presence of a hydrocarbon envelope in samples CE831, CE835, CE836, CE840, CE901-CE904, CE909, CE910, CE913. Identification/quantitation of HSL compounds does not appear to have been affected.
- 8) PCB-1248 was tentatively identified (N) in sample CE837. Examination of respective chromatograms and relative retention times with respect to dibutylchlorodate exhibited good matching quality with those of the standard. Estimated dry weight concentration value for this compound is 690 ug/kg. It has been incorporated into the data summary with a qualifier "N".
- 9) The detection limit for chlordane in sample CE838 has been raised to 380U (dry weight) and designated as estimated (J) in the data summary. The presence of PCB's in this sample makes it difficult to confirm the absence of chlordane below this concentration.

SUMMARY

All fractions of all samples were successfully analyzed. Laboratory contamination, possible false negatives, indication of sample non-homogeneity, poor separation of isomers, and unreported compounds were areas that affected the usability of the data.

The text of this report has been formatted to address only those problem areas which affect the application of the data to the site investigation. Documentation of these problems and any other observed areas of laboratory contractual noncompliance are included in a separate report sent to the laboratory's CLP Project Officer. If you have questions or comments on this data review, please call me.

Enclosures

AR300973

Glossary: Qualifier Codes

The data summary contains the following qualifier codes:

- U - The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
- J - The associated numerical value is an estimated quantity because quality control criteria were not met.
- R - Quality control indicates that data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.

AR300974

V0A
Pg 1-6

CASE #/SITE ID: 6162/Kane - Lombard

DATE SAMPLED:	7-7-86	7-7-86	7-8-86	7-8-86	7-9-86	7-8-86	7-9-
DATE SAMPLE RECD:	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-
DATE EXTR/PREP'D:	7-15-86	7-21-86	7-15-86	7-15-86	7-15-86	7-15-86	7-15-
DATE ANALYZED:	7-15-86	7-21-86	7-15-86	7-15-86	7-15-86	7-15-86	7-15-
CONC/DIL FACTOR:	1	100	1	1	1	1	1
% MOISTURE:	8.0	35	20	78	13	52	27
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:							
CAS Number	TRAFFIC REPORT #:						
	CE 830	CE 831	CE 832	CE 833	CE 834	CE 835	CE 83.
75-87-3 Chloromethane (1)	UJ		UJ	UJ	UJ	UJ	UJ
75-83-9 Bromomethane (1)							
75-01-4 Vinyl Chloride (1)							
75-00-3 Chloroethane (1)							
75-08-2 Methylene Chloride	1 UJ	140 UJ	8 UJ	11 UJ	2 UJ	7 UJ	12 UJ
67-84-1 Acetone (1)	20 UJ	3600 UJ	40 UJ	95 UJ	43 UJ	38 UJ	32 UJ
75-15-0 Carbon Disulfide		310		5			
75-35-4 1, 1-Dichloroethane							
75-34-3 1, 1-Dichloroethane							
156-80-5 Trans-1, 2-Dichloroethane							
67-86-3 Chloroform			2 J				1 J
107-08-2 1, 2-Dichloroethane							
75-83-3 2-Butanone (1)	9 UJ	5700 UJ	11 UJ	35 UJ	9 UJ	9 UJ	10 UJ
71-55-6 1, 1, 1-Trichloroethane		UJ					
56-23-5 Carbon Tetrachloride							
108-06-4 Vinyl Acetate (1)	R	R	R	R	R	R	R
75-27-4 Bromodichloromethane	R		R	R	R	R	R
75-87-5 1, 2-Dichloropropane							
10061-02-6 Trans-1, 3-Dichloropropane							
75-01-6 Trichloroethane			2 J				
124-48-1 Dibromochloromethane	UJ		UJ	UJ	UJ	UJ	UJ
75-00-5 1, 1, 2-Trichloroethane							
71-43-2 Benzene							
10061-01-6 cis-1, 3-Dichloropropane							
110-75-8 2-Chloroethylvinylether (1)	R	R	R	R	R	R	R
75-25-2 Bromoform	UJ		UJ	UJ	UJ	UJ	UJ
591-78-6 4-Methyl-2-Pentanone (1)	UJ		UJ	UJ	UJ	UJ	UJ
108-10-1 2-Hexanone (1)	UJ		UJ	UJ	UJ	UJ	UJ
127-18-4 Tetrachloroethane					2 J		
75-34-5 1, 1, 2, 2-Tetrachloroethane							
108-88-3 Toluene			5				2 J
108-90-7 Chlorobenzene							
100-41-4 Ethylbenzene		270 J					
100-42-5 Styrene							
Total Xylenes	UJ	490 J	UJ	UJ	UJ	UJ	UJ

AR300975

CASE #/SITE ID: 6162/Kane - Lombard

VOA
19-2-6

DATE SAMPLED:	7-9-86	7-9-86	7-9-86	7-9-86	7-9-86	7-9-86	7-9-
DATE SAMPLE RECD:	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-
DATE EXTR/REP'D:	7-10-86	7-15-86	7-15-86	7-15-86	7-15-86	7-15-86	7-16-
DATE ANALYZED:	7-16-86	7-15-86	7-15-86	7-15-86	7-15-86	7-15-86	7-16-
CONC/DIL FACTOR:	1	1	1	1	1	1	1
% MOISTURE:	19	28	10	15	22	12	3.0
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
SAMPLE DESCRIPT.:							
GAS Number	TRAFFIC REPORT #:	CE 837	CE 838	CE 839	CE 840	CE 901	CE 902
75-07-3	Chloromethane (1)	UJ	UJ	UJ	UJ	UJ	UJ
75-07-9	Bromomethane (1)						
75-01-4	Vinyl Chloride (1)						
75-00-3	Chloroethane (1)						
75-08-2	Methylene Chloride	6 UJ	4 UJ	3 UJ	2 UJ	2 UJ	3 UJ
67-64-1	Acetone (1)	16 UJ	18 UJ	13 UJ	11 UJ	12 UJ	16 UJ
75-18-0	Carbon Disulfide						13
75-35-4	1, 1-Dichloroethane						
75-34-3	1, 1-Dichloroethane						
188-80-5	Trans-1, 2-Dichloroethane						2
67-66-3	Chloroform						
107-08-2	1, 2-Dichloroethane						
75-83-3	2-Butanone (1)	9 UJ	11 UJ	9 UJ	10 UJ	9 UJ	9 UJ
71-55-6	1, 1, 1-Trichloroethane						
66-23-5	Carbon Tetrachloride						
108-06-4	Vinyl Acetate (1)	R	R	R	R	R	R
75-27-4	Bromodichloromethane						
75-87-5	1, 2-Dichloropropene						
10061-02-6	Trans-1, 3-Dichloropropene						
75-01-6	Trichloroethene						
124-48-1	Dibromochloromethane						
75-00-5	1, 1, 2-Trichloroethane						
71-43-2	Benzene						
10061-01-6	cis-1, 3-Dichloropropene						
110-75-8	2-Chloroethylvinylether (1)	R	R	R	R	R	R
75-25-2	Bromoform						
601-78-6	4-Methyl-2-Pentanone (1)	UJ	UJ	UJ	UJ	UJ	UJ
108-10-1	2-Hexanone (1)	UJ	UJ	UJ	UJ	UJ	UJ
127-18-4	Tetrachloroethene						
75-34-5	1, 1, 2, 2-Tetrachloroethane						
108-88-3	Toluene						1 J 13
108-90-7	Chlorobenzene						
100-41-4	Ethylbenzene						
100-42-6	Styrene						
	Total Xylenes	UJ	UJ	UJ	UJ	UJ	UJ

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CASE #/SITE ID: 6162/Kane & Lombard

VOA
A9 3-6

DATE SAMPLED:	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-11-86	7-11-86
DATE SAMPLE RECD:	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86
DATE EXTR/PREP'D:	7-16-86	7-16-86	7-16-86	7-16-86	7-16-86	7-16-86	7-16-86
DATE ANALYZED:	7-16-86	7-16-86	7-16-86	7-16-86	7-16-86	7-16-86	7-16-86
CONC/DIL FACTOR:	1	1	1	1	1	1	1
% MOISTURE:	30	35	35	20	19	32	36
UNITS:	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	CE 904	CE 905	CE 906	CE 907	CE 908	CE 909	CE 910
75-07-3 Chloromethane (1)	UJ	UJ	UJ	UJ	UJ	UJ	UJ
75-09-9 Bromomethane (1)							
75-01-4 Vinyl Chloride (1)							
75-00-3 Chloroethane (1)							
75-08-2 Methylene Chloride	53 UJ	15 UJ	16 UJ	11 UJ	2 UJ	9 UJ	11 UJ
67-84-1 Acetone (1)	33 UJ	73 UJ	25 UJ	30 UJ	37 UJ	38 UJ	18 UJ
75-18-0 Carbon Disulfide	7	6	5			2 J	6
75-35-4 1, 1-Dichloroethane							
75-34-3 1, 1-Dichloroethane							
156-80-5 Trans-1, 2-Dichloroethane	6						
67-88-3 Chloroform							
107-08-2 1, 2-Dichloroethane							
78-83-3 2-Butanone (1)	8 UJ	22 UJ	14 UJ	13 UJ	13 UJ	14 UJ	12 UJ
71-55-8 1, 1, 1-Trichloroethane							
56-23-5 Carbon Tetrachloride							
108-05-4 Vinyl Acetate (1)	R	R	R	R	R	R	R
75-27-4 Bromodichloromethane							
75-87-5 1, 2-Dichloropropene							
10061-02-8 Trans-1, 3-Dichloropropene							
79-01-6 Trichloroethane							
124-48-1 Dibromochloromethane							
79-00-5 1, 1, 2-Trichloroethane							
71-43-2 Benzene							
10061-01-8 cis-1, 3-Dichloropropene							
110-75-8 2-Chloroethylvinylether (1)	R	R	R	R	R	R	R
75-25-2 Bromoform							
801-78-6 4-Methyl-2-Pentanone (1)	UJ	UJ	UJ	UJ	UJ	5 J	5 J
108-10-1 2-Hexanone (1)	UJ	UJ	UJ	UJ	UJ	UJ	UJ
127-18-4 Tetrachloroethane	6						
79-34-5 1, 1, 2, 2-Tetrachloroethane							
108-88-3 Toluene	3 J	3 J	5			16	4 J
108-90-7 Chlorobenzene	23	90				62	5
100-41-4 Ethylbenzene						4 J	5
100-42-5 Styrene							
Teep Xylenes	UJ					5	2 J

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VOA
Pg 4-6

CASE #/SITE ID: 6462 / Kane & Lombard

DATE SAMPLED:	7-11-86		7-11-86	7-11-86	7-11-86		
DATE SAMPLE RECD:	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86	7-10-86	7-10-86
DATE EXTR/PREP'D:	7-17-86	7-21-86	7-17-86	7-17-86	7-17-86	7-15-86	7-15-86
DATE ANALYZED:	7-17-86	7-21-86	7-17-86	7-17-86	7-17-86	7-15-86	7-15-86
CONC/DIL FACTOR:	1	250	1	1	1	1	1
% MOISTURE:	24	30	27	19	19		
UNITS:	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg
SAMPLE DESCRIPT.:							
TRAFFIC REPORT #:		CE 911	CE 912	CE 913	CE 914	CE 915	CE 916
GAS							
Number							
75-07-2	Chloromethane (1)	UJ		UJ	UJ	UJ	UJ
75-08-9	Bromomethane (1)						
75-01-4	Vinyl Chloride (1)						
75-00-3	Chloroethane (1)						
75-08-2	Methylene Chloride	51 UJ		44 UJ	38 UJ	40 UJ	2 UJ
67-84-1	Acetone (1)	60 UJ	240000 UJ	29 UJ	39 UJ	76 UJ	19 UJ
75-18-0	Carbon Disulfide	4 J					
75-35-4	1, 1-Dichloroethane						
75-34-3	1, 1-Dichloroethane						
155-80-5	Trans-1, 2-Dichloroethane						
67-86-3	Chloroform						
107-08-2	1, 2-Dichloroethane						
75-83-3	2-Butanone (1)	14 UJ	160000 UJ	14 UJ	12 UJ	20 UJ	12 UJ
71-85-6	1, 1, 1-Trichloroethane		UJ				
55-23-5	Carbon Tetrachloride						
108-05-4	Vinyl Acetate (1)	R	R	R	R	R	R
75-27-4	Bromodichloromethane						
75-87-5	1, 2-Dichloropropene						
10081-02-8	Trans-1, 3-Dichloropropene						
75-01-6	Trichloroethene						
124-48-1	Dibromochloromethane					UJ	
75-00-5	1, 1, 2-Trichloroethane						
71-43-2	Benzene				2 J		
10081-01-5	cis-1, 3-Dichloropropene						
110-75-8	2-Chloroethoxyvinylether (1)	R	R	R	R	R	R
75-25-2	Bromoform					UJ	
581-75-6	4-Methyl-2-Pentanone (1)	UJ		UJ	UJ	UJ	UJ
108-10-1	2-Hexanone (1)	UJ		UJ	UJ	UJ	UJ
127-18-4	Tetrachloroethene						
75-34-5	1, 1, 2, 2-Tetrachloroethane						
108-88-3	Toluene	3 J	17000000		11	3 J	
108-90-7	Chlorobenzene	180				3 J	
100-41-4	Ethylbenzene		360000		3 J		
100-43-5	Styrene						
	Total Xylenes	UJ	1400000	UJ	610 J	UJ	UJ

AR300978

CASE #/SITE ID: 6162/Kane + Lombard

DATE SAMPLED:							
DATE SAMPLE RECD:		7-12-86	7-12-86	7-12-86	7-10-86		
DATE EXTR/REP'D:		7-16-86	7-16-86	7-17-86	7-21-86		
DATE ANALYZED:		7-16-86	7-16-86	7-17-86	7-21-86		
CONC/DIL FACTOR:		1	1	1	50		
% MOISTURE:							
UNITS:		ug/kg	ug/kg	ug/kg	ug/kg		
CAS Number	SAMPLE DESCRIPT.:	VV6K 30716	VV6K 30716C	VV6K 30717	V6K 30721		
	TRAFFIC REPORT #:	VOA VIAL Blank	VOA VIAL Blank	VOA VIAL Blank	VOA method Blank		
74-87-3	Chloromethane (1)	UJ	UJ	UJ			
74-83-9	Bromomethane (1)						
75-01-4	Vinyl Chloride (2)						
75-00-3	Chloroethane (1)						
75-08-2	Methylene Chloride		1 J	4 J	48 J		
67-84-1	Acetone (1)	9 J	19 J	17 J	1500 J		
75-18-0	Carbon Disulfide						
75-35-4	1, 1-Dichloroethane						
75-34-3	1, 1-Dichloroethane						
155-80-5	Trans-1, 2-Dichloroethane						
67-86-3	Chloroform						
107-06-2	1, 2-Dichloroethane						
78-83-3	2-Butanone (1)	6 J	16 J	10	3100		
71-55-6	1, 1, 1-Trichloroethane				UJ		
58-23-5	Carbon Tetrachloride						
108-05-4	Vinyl Acetate (1)	R	R	R	R		
75-27-4	Bromodichloromethane						
75-87-5	1, 2-Dichloropropane						
10061-02-6	Trans-1, 3-Dichloropropane						
75-01-8	Trichloroethane						
124-48-1	Dibromochloromethane						
75-00-5	1, 1, 2-Trichloroethane						
71-43-2	Benzene						
10061-01-5	cis-1, 3-Dichloropropane						
110-75-8	2-Chloroethylvinylether (1)	R	R	R	R		
75-25-2	Bromoform						
581-78-8	4-Methyl-2-Pentanone (1)	UJ	UJ	UJ			
108-10-1	2-Hexanone (1)	UJ	UJ	UJ			
127-18-4	Tetrachloroethane						
75-34-5	1, 1, 2, 2-Tetrachloroethane						
108-88-3	Toluene						
108-90-7	Chlorobenzene						
100-41-4	Ethylbenzene						
100-42-5	Styrene						
	Teep Xylenes	UJ		UJ			

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DATE SAMPLED:	7-7-86	7-7-86	7-8-86	7-8-86	7-9-86	7-8-86	7-9-86	7-9-86	7-9-86	7-9-86
DATE SAMPLE RECD:	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86
DATE EXTENDED PREP'D:	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86
DATE ANALYZED:	7-31-86	8-8-86	8-8-86	8-8-86	8-11-86	8-8-86	8-8-86	7-31-86	7-31-86	7-31-86
SOC/OIL FACTOR:	1	1	1	1	1	1	1	1	1	1
MOISTURE:										
RTTS:	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg
SAMPLE DESCRIPT.:										
TRAFFIC REPORT #:	CEP30	CEP31	CEP32	CEP33	CEP34	CEP35	CEP36	CEP37	CEP38	CEP39
08-98-2 Phenol								95 J	410	
11-44-4 Brn 2-Chloroethylether										
15-57-8 2-Chlorophenol										
41-73-1 1,3-Dichlorobenzene										
59-44-7 1,4-Dichlorobenzene										
60-81-8 Benzyl Alcohol		UJ	UJ	UJ		UJ	UJ			
65-50-1 1,2-Dichlorobenzene										
65-49-7 2-Methylphenol					UJ					
6638-32-9 Brn 2-Chloroethylether					UJ					
68-44-5 4-Methylphenol									110 J	
71-64-7 N-Nerose-D.N. Propylamine										
67-72-1 Hexachlorobutene										
68-98-3 Nitrobenzene		UJ	UJ	UJ		UJ	UJ			
78-58-1 Isophenol										
89-75-6 2-Terphenol										
105-67-8 2,4-Dimethylphenol		UJ	UJ	UJ		UJ	UJ			
66-66-0 Benzoic Acid (2)	UJ							UJ	UJ	UJ
111-91-1 Brn 2-Chloroethylether										
30-83-2 2,4-Dichlorophenol										
30-82-1 1,2,4-Trichlorobenzene										
11-30-3 Neophenol		UJ	UJ	UJ		UJ	UJ	160 J	97 J	
68-47-8 4-Chloroaniline					UJ					
17-68-3 Hexachlorobutene										
6-10-7 4-Chloro-3-Methylphenol										
11-57-6 2-Methylphenol		UJ	UJ	UJ	UJ	UJ	UJ			
7-47-4 Hexachlorocyclopentadiene		UJ	UJ	UJ		UJ	UJ			
6-68-2 2,4,6-Trichlorophenol										
6-68-4 2,4,6-Trichlorophenol (2)										
11-58-7 2-Chloroaniline										
9-74-4 2-Nitroaniline (2)										
31-11-2 Dimethyl Phenylether									190 J	
68-98-8 Azobenzene										
9-68-7 2-Nitroaniline (2)	UJ							UJ	UJ	UJ
11-30-9 Azobenzene										
1-38-6 2,4-Dichlorophenol (2)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
29-02-7 4-Nitrophenol (2)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
32-64-9 Benzofuran										
21-14-3 2,4-Dinitroaniline										
78-20-2 2,6-Dinitroaniline					UJ					
66-2 Diethylphenol										
6-72-3 4-Chlorophenyl-phenylether										
73-7 Phloroglucin										
01-6 4-Nitroaniline (2)	UJ				UJ			UJ	UJ	UJ
62-1 4,6-Dinitro-2-Methylphenol (2)		UJ	UJ	UJ		UJ	UJ			
50-8 N-Nerosephenylamine (1)										
66-3 4-Bromophenyl-phenylether										
74-1 Hexachlorobenzene										
28-6 Para-chlorophenol (2)										
3-01-8 Phenanthrene			2400 J		160 J			360	700	78 J
20-12-7 Anthracene					58 J				200 J	34 J
6-76-2 D.N. Butylphenol	63 UJ	3100 J			130 UJ			100 UJ	350 UJ	120 UJ
68-44-9 Fluoranthene			3100 J		190 J			360	940	200 J
29-60-0 Pyrene					230 J			410	1700	380
6-66-7 Butylbenzylamine	UJ	4100 J	2500 J	UJ	61 J	UJ	UJ	1200 J	3100 J	5200 J
1-84-1 3,3-Dichlorobenzene (2)	R	R	R	R	R	R	R	R	R	R
6-66-3 Benzofluoranthene			2100 J		120 J			210 J	930	165 J
17-81-7 Brn 2-Ethylmethylphenol	UJ	11000			250 J			3600 J	11000 J	4500 J
18-01-8 Chrysene					170 J			310 J	1000	210 J
17-84-6 D.N. Octyl Phenol										
26-88-2 Benzofluoranthene					280 J			550	1500	270 J
37-68-8 Benzofluoranthene										
5-33-6 Benzofluoranthene										
13-38-6 Indeno[1,2,3-cd]Pyrene					130 J			360	860	83 J
7-70-2 Dibenz[a,h]Anthracene	UJ				110 J			350	460	
11-34-2 Benzo[a,h]Anthracene					47 J			480	420	UJ

1) Cannot be separated from diphenylamine

AR300980

ATE SAMPLED:	7-9-86	7-9-86	7-9-86	7-9-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86
ATE SAMPLE RECD:	7-10-86	7-10-86	7-10-86	7-10-86	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86
ATE EXPR/PREP'D:	7-15-86	7-15-86	7-14-86	7-14-86	7-22-86	7-22-86	7-14-86	7-14-86	7-14-86	7-14-86
ATE ANALYZED:	8-1-86	8-1-86	8-1-86	8-1-86	8-5-86	8-6-86	8-6-86	8-6-86	8-6-86	8-6-86
INC/DIL FACTOR:	1	1	1	1	1	1	1	1	1	1
MOISTURE:										
TS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:										
TRAFFIC REPORT #:	CE900	CE901	CE902	CE903	CE904	CE905	CE906	CE907	CE908	CE909
08-88-2 Phenol										
11-88-4 bis(2-Chloroethoxy)Ether										
5-87-8 2-Chlorophenol										
41-73-1 1, 2-Dichlorobenzene										
08-46-7 1, 4-Dichlorobenzene		570								
00-51-6 Benzyl Alcohol						UJ	UJ	UJ	UJ	UJ
5-80-1 1, 2-Dichlorobenzene										
5-88-7 2-Methylphenol										
9838 32-9 bis(2-chloroethoxy)Ether			UJ	UJ						
06-44-5 4-Methylphenol		55 J								62 J
21-84-7 N-Nitroso-Di-n-Propylamine									UJ	UJ
87-72-1 Hexachlorobenzene										
98-85-3 Nitrobenzene									UJ	UJ
78-80-1 Isophenol	55		47 J				120 J		1800	110 J
88-75-5 2-Nitrophenol									UJ	UJ
108-67-9 2, 4-Dimethylphenol										
56-86-0 Benzoic Acid (2)	UJ									
11-81-1 bis(2-Chloroethoxy)Methane										
20-83-2 2, 4-Dichlorophenol										
20-82-1 1, 2, 4-Trichlorobenzene										
1-30-3 Naphthalene		230 J	100 J	140 J	UJ				470	240 J
08-47-8 4-Chlorophenol			UJ	UJ						
7-88-3 Hexachlorobutadiene										
5-80-7 4-Chloro-3-Methylphenol										
1-57-8 2-Methylnaphthalene		180 J	130 J	UJ	UJ				93 J	87 J
7-47-4 Hexachlorocyclopentadiene										
5-88-2 2, 4, 6-Trichlorophenol										
5-86-4 2, 4, 6-Trichlorophenol (1)										
1-88-7 2-Chloronaphthalene										
7-4-4 2-Nitroniline (2)										
21-3 Dimethyl Phenol										
2-8 Acetophenone		740				UJ	UJ	UJ	68 J	380
2-2 3-Nitroniline (3)	UJ								UJ	UJ
1-32-8 Acetophenone		76 J	110 J						140 J	110 J
2-8 2, 4-Dinitrophenol (3)	UJ	UJ	UJ	UJ		UJ	UJ	UJ	UJ	UJ
0-02-7 4-Nitrophenol (3)	UJ	UJ	UJ	UJ		UJ	UJ	UJ	UJ	UJ
12-84-9 Benzotriazole		250 J	140 J		3200 J				90 J	170 J
1-14-2 2, 4-Dinitrophenol						UJ	UJ	UJ	UJ	UJ
8-20-7 2, 6-Dinitrophenol										
1-86-7 Dinitrophenol										
08-72-3 4-Chlorophenyl-phenylether										
1-73-7 Fluorene		330	110 J		6500 J				130 J	200 J
10-01-6 4-Nitrophenol (2)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
14-82-1 4, 6-Dinitro-2-Methylphenol (3)										
1-20-6 N-Nitrosodiphenylamine (1)										
11-58-3 4-Bromophenyl-phenylether										
8-74-1 Hexachlorobenzene						UJ	UJ	UJ	UJ	UJ
1-86-5 Pentachlorophenol (1)										
1-01-8 Phenanthrene	130 J	5300	1100	79 J	72000 J		410		1200	4200
10-12-7 Anthracene	56 J	8000	390		20000 J		160 J		750	1400
1-74-2 Di-n-Butylphthalate	120 UJ	2200	450 UJ	94 UJ	6600	UJ	110 UJ	64 UJ	240 UJ	950 J
2-44-0 Fluoranthene	390	9100	1800	45 J	120000 J	23000	980		1900	6100
19-00-6 Pyrene	210 J	14000	1500	96 J	84000 J	2800 J	950 J	UJ	2200	7000
1-86-7 Butylbenzylphthalate	8800 J		1900	1100		UJ	380 J	UJ	620 J	12000 J
1-86-1 3, 5-Dichlorobenzene (1)	R	R	R	R	R	R	R	R	R	R
1-85-3 Benzyl Anthracene	190 J	26000	1200	32 J	53000 J		490		1500	6400
7-81-7 bis(2-Ethoxyethyl)Phthalate	1000 J	130000	1400	16000	270000 J	30000 J	270 J	UJ	1200 J	2800 J
8-01-8 Chrysene	140 J	30000	830	47 J	45000 J		410		1300	5100
7-84-0 Di-n-Octyl Phthalate										240 J
8-88-2 Benzyl Fluoranthene	280 J		1900		81000 J		660		3000	7400
7-88-9 Benzyl Fluoranthene										
1-32-8 Benzyl Pyrene	190 J		910		47000 J		360		1400	900
3-88-8 Internal, 2, 3-di-Pyrene	130 J	2600	490		26000 J		250 J		1700	780
70-3 Dibenzyl naphthalene	UJ		150 J		6901 J				500	
1-2 Benzyl n-Phenylamine	130 J		390		25000 J		220 J		2400	3100

Note: be separated from diphenylamine

AR300981

ITE SAMPLE ID:	7-1-86	7-11-86	7-11-86	7-11-86	7-11-86	7-11-86				
ITE SAMPLE RECD:	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86				
ITE EXTRA PREP'D:	7-14-86	7-22-86	7-22-86	7-14-86	7-22-86	7-17-86	7-14-86	7-14-86	7-17-86	7-16-86
ITE ANALYZED:	8-6-86	8-7-86	8-7-86	8-7-86	8-7-86	8-7-86	7-31-86	8-6-86	8-7-86	8-8-86
HC/DIL FACTOR:	1	1	3	1	1	1	1	1	1	1
MOISTURE:										
ITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:										
AS										
TRAFFIC REPORT #:	CE910	CE911	CE912	CE913	CE914	CE915	method blank	method blank	method blank	method blank
28-06-2 Phenol	110									
11-44-4 bis-2-Chloroethoxy Ether										
5-67-8 2-Chlorophenol										
41-73-1 1,3-Dichlorobenzene										
28-46-7 1,4-Dichlorobenzene										
30-61-6 Benzyl Alcohol	UJ							UJ		UJ
5-60-1 1,2-Dichlorobenzene										
5-68-7 2-Methylphenol										
28-32-9 bis-2-Chloroethoxy Ether										
28-44-5 4-Methylphenol	88 J									
21-64-7 N-Nitroso-Di-n-Propylamine	UJ									
07-72-1 Hexachlorobutene										
89-86-3 Nitrobenzene	UJ									UJ
78-68-1 Isophenone	57 J			670	2100	170 J				
89-79-5 2-Nitrophenol	UJ	UJ	UJ	UJ	UJ	UJ			UJ	
106-87-8 2,4-Dimethylphenol										UJ
56-66-6 Benzoic Acid (2)							UJ			
11-91-1 bis-2-Chloroethoxy Methane										
10-83-2 2,4-Dichlorophenol										
10-82-1 1,2,4-Trichlorobenzene										
1-30-3 Naphthalene	110 J		420 J	130 J		760				
28-47-8 4-Chloroaniline										
1-68-3 Hexachlorobutadiene										
5-60-7 4-Chloro-3-Methylphenol										
1-67-6 3-Methylnaphthalene	99 J									
1-67-4 Hexachlorocyclopentadiene		UJ	UJ	UJ	UJ	UJ			UJ	UJ
1-68-3 2,4,6-Trichlorophenol										
1-68-4 2,4,6-Trichlorophenol (2)										
1-68-7 3-Chloronaphthalene										
1-74-4 2-Nitroaniline (2)										
11-11-3 Dimethyl Phthalate										
2-88-9 Acenaphthylene				120 J				UJ	UJ	
1-88-2 3-Nitroaniline (2)	UJ							UJ		
2-88-9 Acenaphthylene	62 J									
2-88-8 2,6-Dinitrophenol (3)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
0-02-7 4-Nitrophenol (3)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
2-84-9 Benzenesulfonamide										
1-14-2 2,4-Dinitrophenol	UJ							UJ		
2-20-2 2,6-Dinitrophenol										
2-88-2 Dinitrophenol										
05-72-3 4-Chlorophenyl-phenyl ether										
72-7 Fluorene	60 J									
0-01-8 4-Nitroaniline (3)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
4-82-1 4,6-Dinitro-2-Methylphenol (2)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
30-6 N-Nitrosodiphenylamine (11)										
1-68-3 4-Bromophenyl-phenyl ether										
8-74-1 Hexachlorobenzene	UJ	UJ	UJ	UJ	UJ	UJ		UJ	UJ	
2-88-6 Perchlorophenol (3)										
01-8 Phenanthrene	250 J			60		75 J				
0-12-3 Anthracene	93 J			230 J						
74-2 Di-n-Butylphthalate	140 UJ	UJ	30 UJ	60 UJ	UJ	62 UJ	45 J	UJ	UJ	
6-44-9 Fluoranthene	570			1100		280 J				
9-00-0 Pyrene	510	UJ	UJ	790 J	UJ	190 J		UJ	UJ	
88-7 Benzenesulfonyl chloride	1650 J	6200 J	UJ	450 J	UJ	2400 J	UJ	UJ	UJ	UJ
84-1 3,3-Dichlorobenzidine (2)	R	R	R	R	R	R	R	R	R	R
84-3 Benzo(a)anthracene	210 J			590		440 J				
7-81-7 bis-2-Ethylhexylphthalate	240 J	3300 J	110 J	1300 J	UJ	420 J	UJ	UJ	UJ	
8-01-8 Chrysene	240 J			480		120 J				
7-84-8 Di-n-Octyl Phthalate										
5-88-2 Benzo(b)fluoranthene	320 J			1100		270 J				
7-88-8 Benzo(a)fluoranthene										
33-8 Benzo(a)pyrene	160 J			630		140 J				
3-38-6 Indeno(1,2,3-cd)pyrene	180 J			470		73 J				
79-3 Benzo(a)anthracene				150 J			UJ			
1-36-2 Benzo(a,h)phenylene				490		64 J				

) Cannot be separated from diphenylamine

AR300982

APR 30 09 83

cannot be separated from diphenylamine

CASE #/SITE ID: 0162/Kane Lombard

PEST
Pg 1-6

DATE SAMPLED:	7-7-86	7-7-86	7-8-86	7-8-86	7-9-86	7-8-86	7-
DATE SAMPLE RECD:	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-
DATE EXTR/PREP'D:	7-14-86	7-16-86	7-16-86	7-16-86	7-14-86	7-16-86	7-16-
DATE ANALYZED:	8-1-86	8-1-86	8-1-86	8-1-86	8-1-86	8-1-86	8-1-
CONC/DIL FACTOR:	1	1	1	1	10	1	1
% MOISTURE:							
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:							
CAS Number	TRAFFIC REPORT #:	CE830	CE831	CE832	CE833	CE834	CE835
319-84-6	Alpha-BHC						
319-85-7	Beta-BHC						
319-86-8	Delta-BHC						
58-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
959-98-8	Endosulfan I						
80-57-1	Dieldrin						
72-55-9	4,4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-54-8	4,4'-DDD						
1031-07-8	Endosulfan Sulfate						
50-29-3	4,4'-DDT						
72-43-5	Methoxychlor						
53494-70-5	Endrin Ketone						
57-74-9	Chlordane						
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
53469-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248			3000		1400 C	2300
11007-68-1	Aroclor-1254					680 J	14000
11006-82-5	Aroclor-1260						

Sf

AR300984

DATE SAMPLED:	7-9-86	7-9-86	7-9-86	7-9-86	7-9-86	7-9-86	7-9-
DATE SAMPLE RECD:	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10
DATE EXTR/REP'D:	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14
DATE ANALYZED:	8-2-86	8-2-86	8-2-86	8-2-86	8-2-86	8-2-86	8-2
CONC/DIL FACTOR:	2	2	1	10	10	10	10
% MOISTURE:							
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	CEP37	CEP38	CEP39	CEP40	CE901	CE902	CE9
319-84-8	Alpha-BHC						
319-85-7	Beta-BHC						
319-86-8	Delta-BHC						
58-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
959-98-8	Endosulfan I						
50-57-1	Dieldrin						
72-85-9	4,4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-54-8	4,4'-DDD						
1031-07-8	Endosulfan Sulfate						
50-29-3	4,4'-DDT						
72-43-5	Methoxychlor						
53494-70-5	Endrin Ketone						
57-74-9	Chlordane	410	380 U			1100 C	
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
53489-21-9	Aroclor-1242						
12672-28-6	Aroclor-1248	690 N	460	190	5800 C	2100	
11087-69-1	Aroclor-1254		810			1300 J	940 J
11096-82-5	Aroclor-1260	1100					

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CASE #/SITE ID: 6162/Kane-Lombard

PEST
M 3-6

DATE SAMPLED:	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86	7-10-86
DATE SAMPLE RECD:	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86
DATE EXTR/PREP'D:	7-22-86	7-22-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86
DATE ANALYZED:	8-1-86	8-2-86	8-2-86	8-2-86	8-2-86	8-2-86	8-2-86
CONC/DIL FACTOR:	1	1	10	1	?	10	10
% MOISTURE:							
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/l
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	CE 904	CE 905	CE 906	CE 907	CE 908	CE 909	CE 9
319-84-6	Alpha-BHC						
319-85-7	Beta-BHC						
319-86-8	Delta-BHC						
58-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
959-98-8	Endosulfan I						
80-57-1	Dieldrin						
72-85-9	4, 4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-84-8	4, 4'-DDD						
1031-07-8	Endosulfan Sulfate						
80-29-3	4, 4'-DDT						
72-43-5	Methoxychlor						
53494-70-5	Endrin Ketone						
57-74-9	Chlordane	160 J					
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
53469-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248						
11097-68-1	Aroclor-1254					880 C"	
11096-82-5	Aroclor-1260					400 JC"	

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CASE #/SITE ID: 6162 / Kane + Lombard

pg 4-6

DATE SAMPLED:	7-11-86		7-11-86	7-11-86	7-11-86		
DATE SAMPLE RECD:	7-12-86	7-12-86	7-12-86	7-12-86	7-12-86		
DATE EXTR/PREP'D:	7-22-86	7-22-86	7-14-86	7-22-86	7-22-86	7-14-86	7-14-86
DATE ANALYZED:	8-2-86	8-2-86	8-2-86	8-4-86	8-2-86	8-1-86	8-2-86
CONC/DIL FACTOR:	1	1	10	1	10	1	1
% MOISTURE:							
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	CE 911	CE 912	CE 913	CE 914	CE 915	method blank	method blank
019-84-6	Alpha-BHC						
019-85-7	Beta-BHC						
019-86-8	Delta-BHC						
58-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
959-98-8	Endosulfan I						
80-57-1	Dieldrin						
72-85-9	4,4'-DDE			63 J			
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-54-8	4,4'-DDD			140 J			
1031-07-8	Endosulfan Sulfate						
50-29-3	4,4'-DDT			86 J			
72-43-6	Methoxychlor						
53494-70-5	Endrin Ketone						
57-74-9	Chlordane						
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
53469-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248						
11087-69-1	Aroclor-1254						
11086-82-5	Aroclor-1260						

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DATE SAMPLED:							
DATE SAMPLE RECD:							
DATE EXTR/PREP'D:	7-16-86	7-16-86	7-22-86				
DATE ANALYZED:	8-1-86	8-1-86	8-1-86				
CONC/DIL FACTOR:	1	1	1				
% MOISTURE:							
UNITS:	ug/kg	ug/kg	ug/kg				
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:						
	method blank method blank method blank						
019-84-6	Alpha-BHC						
019-85-7	Beta-BHC						
019-86-8	Delta-BHC						
56-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
059-98-8	Endosulfan I						
80-57-1	Dieldrin						
72-55-9	4,4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-84-8	4,4'-DDO						
1031-07-8	Endosulfan Sulfate						
80-29-3	4,4'-DDT						
72-43-5	Methoxychlor						
63494-70-5	Endrin Ketone						
57-74-9	Chlordane						
8001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-5	Aroclor-1232						
63489-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248						
11097-68-1	Aroclor-1254						
11096-82-5	Aroclor-1260						

AR300988

Case #/Site: 6162/Kene - Lombard

CAS Number		WATER ug/L	SOIL ug/kg
75-87-3	Chloromethane	10	10
75-83-9	Bromomethane	10	10
75-01-4	Vinyl Chloride	10	10
75-00-3	Chloroethane	10	10
75-08-2	Methylene Chloride	5	5
67-64-1	Acetone	10	10
75-18-0	Carbon Disulfide	5	5
75-28-4	1,1-Dichloroethane	5	5
75-24-3	1,1-Dichloroethane	5	5
156-80-5	Trans-1,2-Dichloroethane	5	5
67-66-3	Chloroform	5	5
107-06-2	1,2-Dichloroethane	5	5
75-83-3	2-Butanol	10	10
71-55-6	1,1,1-Trichloroethane	5	5
54-22-5	Carbon Tetrachloride	5	5
108-05-4	Vinyl Acetate	10	10
75-27-4	Bromodichloromethane	5	5
75-87-5	1,2-Dichloropropane	5	5
10081-02-6	Trans-1,2-Dichloropropane	5	5
79-01-8	Trichloroethane	5	5
124-48-1	Dibromochloromethane	5	5
79-00-5	1,1,2-Trichloroethane	5	5
71-43-2	Benzene	5	5
10081-01-5	cis-1,2-Dichloropropane	5	5
110-75-8	2-Chloroethanol	10	10
75-25-2	Bromobenzene	5	5
901-78-6	4-Methyl-2-Pentanone	10	10
108-10-1	2-Hexanol	10	10
127-18-4	Tetrachloroethane	5	5
79-34-5	1,1,2,2-Tetrachloroethane	5	5
108-98-3	Toluene	5	5
108-90-7	Chlorobenzene	5	5
100-41-4	Ethylbenzene	5	5
100-42-6	Styrene	5	5
	Total Xylenes	5	5

CAS Number		WATER ug/L	SOIL ug/kg
319-84-8	Alpha-BHC	0.05	8.0
319-85-7	Beta-BHC	0.05	8.0
319-86-9	Delta-BHC	0.05	8.0
55-89-9	Gamma-BHC (Lindane)	0.05	8.0
75-44-8	Hexachlor	0.05	8.0
309-00-2	Aldrin	0.05	8.0
1024-57-3	Hexachlor Epoxide	0.05	8.0
959-98-8	Endosulfon I	0.05	8.0
80-57-1	Dieldrin	0.10	16
72-85-9	4,4'-DDE	0.10	16
72-20-8	Endrin	0.10	16
33212-85-9	Endosulfon II	0.10	16
72-84-8	4,4'-DDD	0.10	16
1031-07-8	Endosulfon Sulfate	0.10	16
50-29-3	4,4'-DDT	0.10	16
72-43-5	Methoxychlor	0.5	80
53494-70-5	Endrin Ketone	0.1	16
57-74-9	Chlordane	0.5	80
9001-35-3	Toxaphene	1.0	160
12674-11-2	Aroclor-1018	0.5	80
11104-28-2	Aroclor-1221	0.5	80
11141-16-5	Aroclor-1230	0.5	80
53488-21-8	Aroclor-1242	0.5	80
12672-28-4	Aroclor-1248	0.5	80
11087-68-1	Aroclor-1254	1.0	160
11086-62-5	Aroclor-1260	1.0	160

Values must be multiplied x dilution factor and for soils divided by fraction of solids

CAS Number		WATER ug/L	SOIL ug/kg
108-96-2	Phenol	10	330
111-44-4	bis-2-Chloroethylether	10	330
95-87-8	2-Chlorophenol	10	330
541-72-1	1,2-Dichlorobenzene	10	330
105-45-7	1,4-Dichlorobenzene	10	330
100-81-6	Benzyl Alcohol	10	330
95-80-1	1,2-Dichlorobenzene	10	330
95-48-7	2-Methylphenol	10	330
39839-32-9	bis(2-chloroethoxy)ether	10	330
106-44-5	4-Methylphenol	10	330
621-64-7	N-Nitroso-Di-n-Propylamine	10	330
67-72-1	Hexachloroethane	10	330
98-96-3	Nitrobenzene	10	330
78-58-1	Isophenol	10	330
88-75-8	2-Nitrophenol	10	330
105-67-8	2,4-Dimethylphenol	10	330
85-85-0	Benzoic Acid (2)	50	1600
111-91-1	bis-2-Chloroethoxyethane	10	330
120-83-2	2,4-Dichlorophenol	10	330
120-82-1	1,2,4-Trichlorobenzene	10	330
91-20-3	Naphthalene	10	330
105-47-8	4-Chlorobenzene	10	330
87-68-3	Hexachlorobutadiene	10	330
98-50-7	4-Chloro-3-Methylphenol	10	330
91-57-6	2-Methylnaphthalene	10	330
77-47-4	Hexachlorocyclopentadiene	10	330
88-06-2	2,4,6-Trichlorophenol	10	330
95-85-4	2,4,5-Trichlorophenol (2)	50	1600
91-55-7	2-Chloronaphthalene	10	330
88-74-4	2-Nitroaniline (1)	50	1600
121-11-3	Dimethyl Phthalate	10	330
308-96-9	Acenaphthylene	10	330
99-09-2	3-Nitroaniline (2)	50	1600
53-32-8	Acenaphthene	10	330
91-28-8	2,4-Dinitrophenol (1)	50	1600
100-02-7	4-Nitrophenol (2)	50	1600
132-84-9	Dibenzofuran	10	330
121-14-2	2,4-Dinitrofluorene	10	330
308-20-2	2,6-Dinitrofluorene	10	330
94-86-2	Dinitrophenols	10	330
7006-72-3	4-Chlorophenyl-phenylether	10	330
96-72-7	Fluorene	10	330
100-01-4	4-Nitroaniline (3)	50	1600
334-82-1	4,6-Dinitro-2-Methylphenol (2)	50	1600
98-30-8	N-Nitrosodiphenylamine (1)	10	330
101-55-3	4-Bromophenyl-phenylether	10	330
118-74-1	Hexachlorobenzene	10	330
87-86-5	Para-chlorophenol (2)	50	1600
95-01-8	Phenanthrene	10	330
120-12-7	Anthracene	10	330
94-74-2	Di-n-Butylphthalate	10	330
205-44-0	Fluoranthene	10	330
129-00-0	Pyrene	10	330
95-86-7	Butylbenzylphthalate	10	330
91-84-1	3,5-Dichlorobenzidine (2)	20	660
94-84-3	Benz(a)Anthracene	10	330
117-81-7	bis(2-Ethoxyethyl)Phthalate	10	330
218-01-6	Chrysene	10	330
117-84-0	Di-n-Octyl Phthalate	10	330
208-96-2	Benz(a)Fluoranthene	10	330
207-08-8	Benz(a)Fluoranthene	10	330
90-22-8	Benz(a)Pyrene	10	330
193-28-8	Indeno(1,2,3-cd)Pyrene	10	330
93-70-3	Chen(a), hAnthracene	10	330
191-24-2	Benz(a), hPyrene	10	330

(1) Cannot be separated from diphenylamine

111300989

+ 25 attachments

Date Review Completed 10-3-86
 Case No. 6162 SAS No. —
 Site Name Kane + Lombard
 Sample Nos: CE 830 - CE 840
CE 901 - CE 915

Contract Lab CAL
 Contract No. 68-01-6958
 Lab DPO Terry Stumph (IX)
 Reviewer Dianne S. Therry
 from Region III Phone 215-524-1160
FTS WESTON

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid	24	2		VOA
	16	10		BNA
	16	10		PEST

VOLATILES	OK	FYI	ACTION	COMMENTS*
GC/MS tuning--BFB	✓			
Initial Calibration		✓	1 ✓	2 summary of non-CCC and non-SPEC
Continuing Calibration		✓		exceeding criteria in Figure 1A (attached)
Surrogate Recovery	✓			
Matrix Spikes	✓			
Reagent Blanks		✓		acetone, 2-butanone > CRDL but < 5X CRDL
Holding times			✓	CE 831 analyzed 11 days past VTSR

SEMI-VOLATILES	OK	FYI	ACTION	COMMENTS*
GC/MS tuning--DFTPP	✓			
Initial Calibration		✓	2 ✓	2 summary of non-CCC and non-SPEC
Continuing Calibration		✓		exceeding criteria in Figure 1B
Surrogate Recovery	✓			
Matrix Spikes	✓			
Reagent Blanks	✓			
Holding times	✓			

PESTICIDES	OK	FYI	ACTION	COMMENTS*
Instrument Performance				DBC exceeded contract required 2% D:
Initial Calibration			✓	cont. calib exceeded 15% for acetone
Continuing Calibration			✓	20% for conf. (see attached)
Surrogate Recovery	✓			
Matrix Spikes	✓			
Reagent Blanks	✓			
Holding times	✓			

OVERALL CASE	OK	FYI	ACTION	COMMENTS*
Compound Identification			✓	
Data Completeness	✓			

REVIEWER'S COMMENTS:

- 1) RF for 2-chloroethylvinylether = 0.003 Although this is not a SPEC, this severe a low-response could lead to false negatives. The data is unusable for this compound, as well as for vinyl acetate/bromo-dichloromethane, with RF < 0.05.
- 2) RF for 3,3'-dichlorobenzidine = 0 Although this is not a SPEC, given low response, indicated the lab would not have been able to identify this compound, if present. Data for this compound is not usable.
- *DOCUMENTATION ATTACHED (see following pages)

AR300990

6162

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 28 Oct.

Laboratory Name: CAL 916-372-1393

Lab Contact: Mike Filigenzi

Region: III Data Review

Regional Contact: Dianne Therry 215-524-1160
(WESTON)

Call Initiated By: Laboratory ✓ Region

In reference to data for the following sample number(s):

① CE904, CE904 MS/MSD

② Surrogate Form II - QC summary * out of * *should be
total # of
SURROGATE
compounds,
not total samples

Summary of Questions/Issues Discussed:

- ① Results of unspiked compounds (mostly PNA's) for CE904 are signif > results for the MS/MSD for these compounds. All approx 0.5g → 1ml, no other dilution info provided (factor of Form I is 1). Please check extraction and/or run logs for possible dilution/calc. to account for difference
- ② note - are in process of changing

Summary of Resolution:

- ① Reviewed data / checked calculations / checked for ~~data~~ dilutions - all check out as reported.
- ② OK

Dianne J. Therry
Signature

28 Oct 86
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

cc: Ralph Nita, et
Dianne Therry

AR300991

ALIGNMENT CRITERIA
 CASE: 662
 AB: CAL

FIGURE 1A

INSTRUMENT F3
 LOW LEVEL CALIBRATION

INSTRUMENT F3
 MEDIUM LEVEL CALIBRATION

CCC # SPCL #	EXCEPTION CRITERIA: Initial: >30% RSD Continuity: >25% D Avg. RFE: 0.05	REP 30715 7-15-86 7:50	REP 30716 7-15-86 16:40	REP 30717 7-16-86 16:10	REP 30718 7-17-86 8:06	REP 30719 7-10-86 Initial	REP 30720 7-21-86 7:40
14-87-3 *	Chloromethane	61	27		31		
14-83-9	Bromomethane						
75-01-4 *	Vinyl Chloride						
75-00-3	Chloroethane						
75-08-2	Methylene Chloride						
87-84-1	Acetone	40	76	74	45	40	
75-15-0	Carbon Disulfide						
75-35-4 *	1, 1-Dichloroethane						
75-34-3 **	1, 1-Dichloroethane						
156-60-5	Trans-1, 2-Dichloroethane						
87-86-3 *	Chloroform						
107-08-2	1, 2-Dichloroethane						
78-83-3	2-Butanone		66	40		.047 OK	.047 OK
71-55-6	1, 1, 1-Trichloroethane						34
58-23-5	Carbon Tetrachloride		-34				
108-06-4	Vinyl Acetate	.038 R	.049 R	R	46 R	.042 R	.045 R
78-27-4	Bromodichloromethane	.049 *	.043 R		.049 OK	.049 OK	.047 OK
78-87-6 *	1, 2-Dichloropropane						
10061-02-6	Trans-1, 3-Dichloropropane						
79-01-6	Trichloroethane						
124-48-1	Dibromochloromethane		-27				
79-00-5	1, 1, 2-Trichloroethane						
71-43-2	Benzene						
10061-01-5	cis-1, 3-Dichloropropene						
110-75-8	2-Chloroethylvinylether	.003 R-71	.049 R-525	R-1468	.049 R-1466	.035 R	.041 R
75-25-2 **	Bromoform		-31				
591-78-6	4-Methyl-2-Pentanone		106	91	56		
108-10-1	2-Hexanone		98	81	41		
127-18-4	Tetrachloroethane						
79-34-5 **	1, 1, 2, 2-Tetrachloroethane						
108-88-3 *	Toluene						
108-90-7 **	Chlorobenzene						
100-41-4 *	Ethylbenzene						
100-42-5	Styrene						
	Other Xylenes						
		29	28	31	26		
		REP 30715 7-15-86 7:50	REP 30716 7-15-86 16:40	REP 30717 7-16-86 16:10	REP 30718 7-17-86 8:06	REP 30719 7-10-86 Initial	REP 30720 7-21-86 7:40
		OK 30715 CE 830 CE 832- CE 836	OK 30716 CE 834 CE 836 CE 838	OK 30717 CE 835 CE 837 CE 839	OK 30718 CE 840 CE 842 CE 844	OK 30719 CE 845 CE 847 CE 849	OK 30720 CE 850 CE 852 CE 854

Affected
 Samples

AR300992

LAB: **CAL****FIGURE 10**

		INSTRUMENT F8				INSTRUMENT F10							
LCC #	SPCC #	EXCEPTION CRITERIA: Initial Calib. 7302 RSD Continuing 7252 RPD Purimum RF 0.05	7-7-86 Initial	8-6-86 6:50	8-6-86 15:20	8-7-86 6:31	7-30-86 Initial	7-31-86 14:03	8-1-86 8:14	8-1-86 15:01	8-5-86 Initial	8-5-86 15:50	8-8-86 6:47
108-86-2 *		Phenol											
111-84-4		brl. 2-Chloroethoxy Ether											
95-87-8		2-Chlorophenol											
94-73-1		1, 3-Dichlorobenzene											
108-86-7 *		1, 4-Dichlorobenzene		-88	-44								42
100-81-8		Benzyl Alcohol											
95-80-1		1, 2-Dichlorobenzene											
95-88-7		2-Methoxyphenol											
95-88-32-8		brl. 2-chloroethoxy Ether							-28				
106-84-5		4-Methoxyphenol											
821-84-26		N-Nitroso-Di-n-Propylamine			-38								
87-72-1		Mesachlorobenzene											
98-86-3		Nitrobenzene			-26								-34
78-88-1		Isophenol											
88-75-5 *		2-Nitrophenol		-29	26								
106-87-8		2, 4-Dimethoxyphenol											-28
85-86-0		Benzic Acid (2)						-54					
111-81-1		brl. 2-Chloroethoxy Ether											
120-83-2 *		2, 4-Dichlorophenol											
120-82-1		1, 2, 4-Trichlorobenzene											
91-20-3		Naphthalene									32		
108-47-8		4-Chloroaniline								63			
87-88-3 *		Mesachlorobutene											
88-80-7 *		4-Chloro-3-Methoxyphenol											
91-87-8		2-Methylnaphthalene							34	36	37		
77-47-4 *		Mesachlorocyclopentadiene			-57								-37
88-86-2 *		2, 4, 6-Trichlorophenol											
95-85-4		2, 4, 6-Trichlorophenol (2)											
91-88-7		2-Chloronaphthalene											
88-74-4		2-Nitroaniline (2)											
131-11-3		Dimethyl Phthalate											
208-86-8		Acenaphthylene		28									
89-88-2		3-Nitroaniline (2)			-37			-22					
83-82-9 *		Acenaphthene											
81-88-5 *		2, 4-Dinitrophenol (2)		-34	-40	-59		-36	41	-41			-34
100-02-75 *		4-Nitrophenol (2)		-67	-59	-49		-45	-28	-31			98
122-84-8		Dioxoluran											
121-14-2		2, 6-Dinitrotoluene		-36	-37								
208-20-2		2, 6-Dinitrotoluene								29			
84-88-2		Diethylphthalate											
7005-72-3		4-Chlorophenyl-phenylether											
96-73-7		Fluorene											
100-01-8		4-Nitroaniline (2)	37				32	-56	-44	-47		-72	
834-82-1		4, 6-Dinitro-2-Methoxyphenol (2)				-39							-33
86-30-6 *		N-Nitrosodiphenylamine (1)											
101-85-3		4-Bromophenyl-phenylether											
118-74-1		Mesachlorobenzene		49	50	32							
87-86-5 *		Pentachlorophenol (2)											
85-01-8		Phenanthrene											
120-12-7		Anthracene											
84-74-2		Di-n-Butylphthalate		59	76	90							
208-86-0 *		Fluoranthene											
129-00-0		Pyrene		-27		-26							
85-88-7		Butylbenzylphthalate		95	77	103		-32					-34
91-84-1		3, 3'-Dichlorobenzidine (2)	103	47	100	100	100	100	100	100	100	100	100
86-85-3		Benzidylanthracene											
117-81-7		brl. 2-Ethylhexyl Phthalate		133	119	165		-33					
218-01-8		Chrysene											
117-84-0 *		Di-n-Octyl Phthalate											
208-86-2		Benzofluoranthene											
207-08-9		Benzofluoranthene											
80-32-8 *		Benzofluoranthene											
193-38-6		Indenol, 2, 3-di-Pyrene											
83-70-3		Quinoline, n-Phenylene						-26					
191-24-2		Benzofluoranthene											

(1) Cannot be separated from diphenylamine

2225M8AB
227M8AB
CE905
CE906
CE907

CE908
CE904
CE910

2230D1AB
CE911
CE912
CE913
CE914
CE915

2220M5AB
CE830
MS,MSD
CE837
CE838
CE839
CE840

CE901

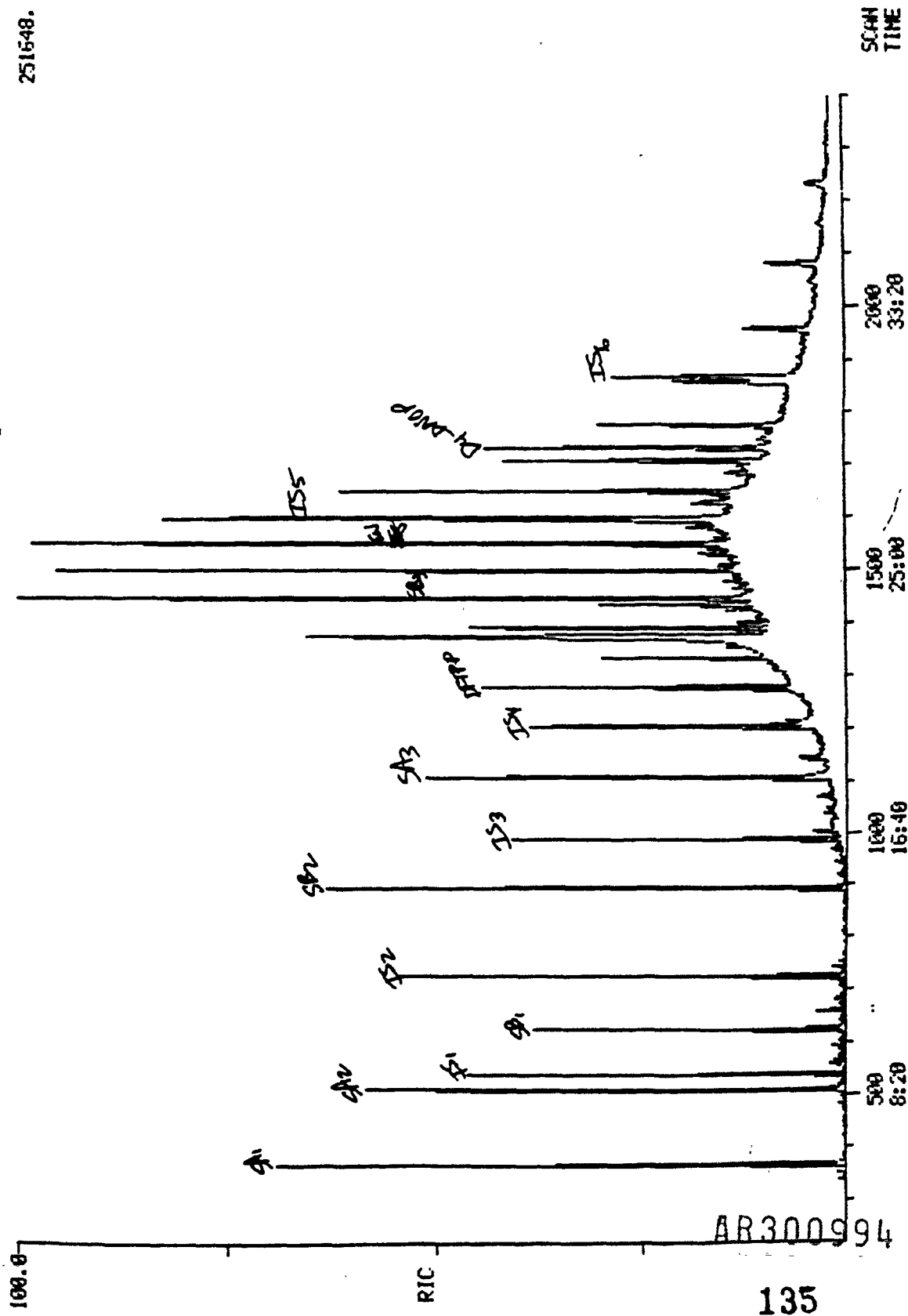
CE902
CE903
CE834

AR300993

2225M8AB, 2230M8AB
CE910+
MS,MSD
CE831
CE832
CE835
CE836

M
Richard M. D. R. L.

251548.



DATA: L221491AB #1 SCANS 220 TO 2400

06:51:51 98/83/80

DATA: L221401AB #1
CALI: FC4310 #2

SAMPLE: CE 835 0.5G/ML

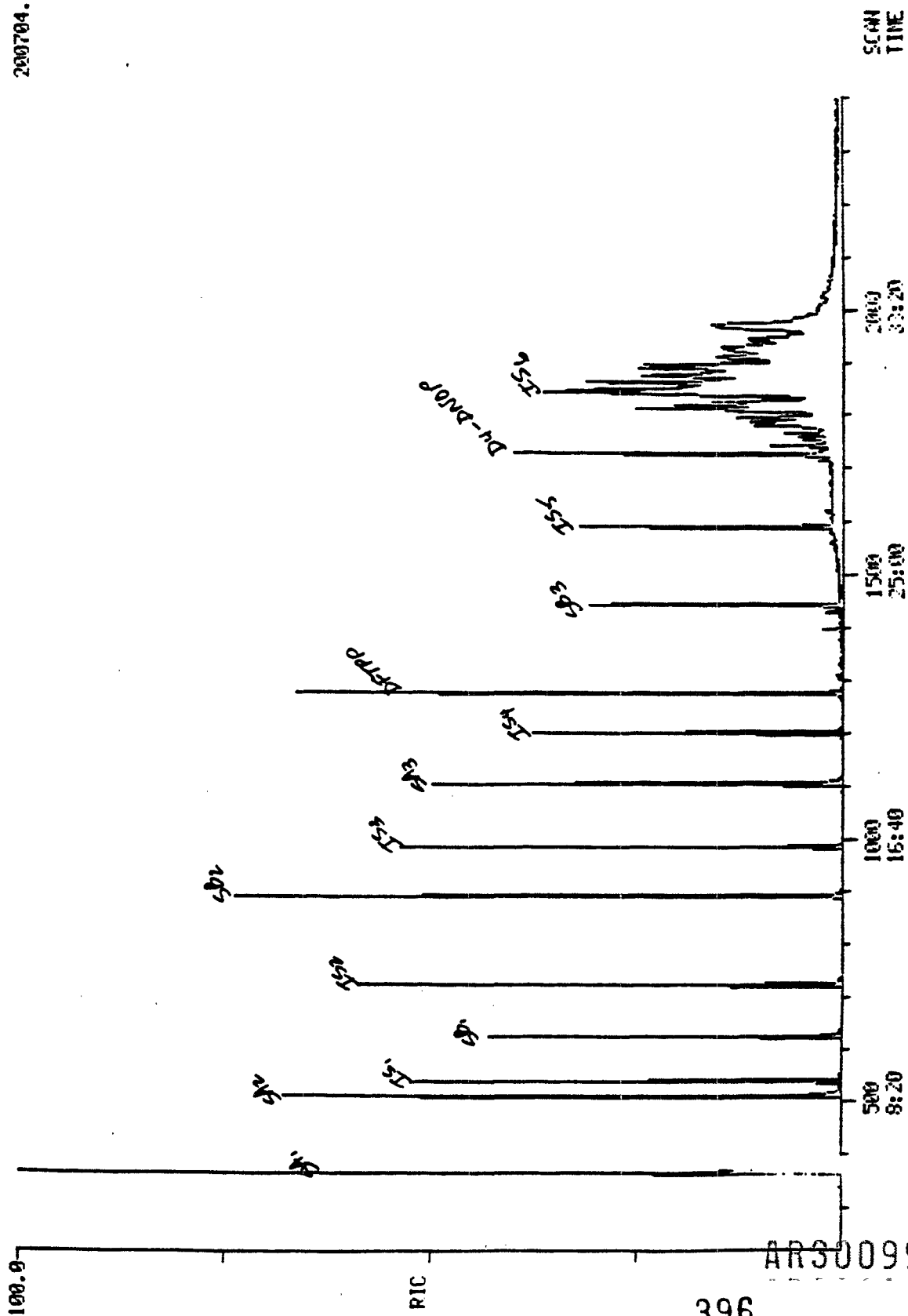
COND: -
1.2400 LABEL: N 4,10.0 QUN: A 6, 2.0 J 0 BASE: U 20, 3

199.9-

RIC

396

~~AR300995~~

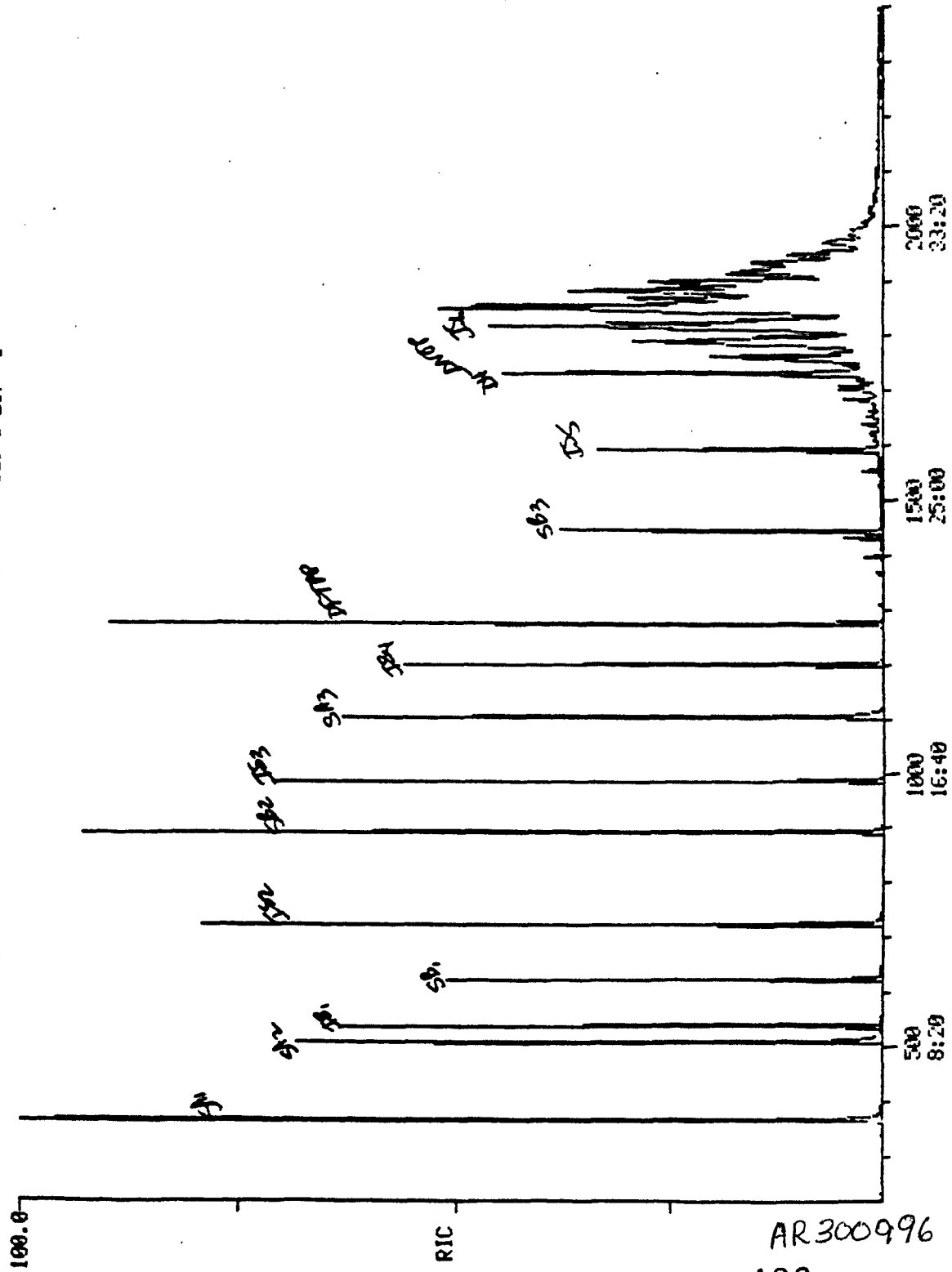


M

medium level

180736.

RIC
08/08/86 16:22:00
SAMPLE: CE 836 0.53G/ML
COND.: -
RANGE: G 1.2400 LABEL: N 4.10.0 QUAN: A 6, 2.0 J 0 BASE: U 20, 3
SCANS 220 TO 2400



AR300996
466

DATA: L221991AB #1
CALI: FC4310 #2

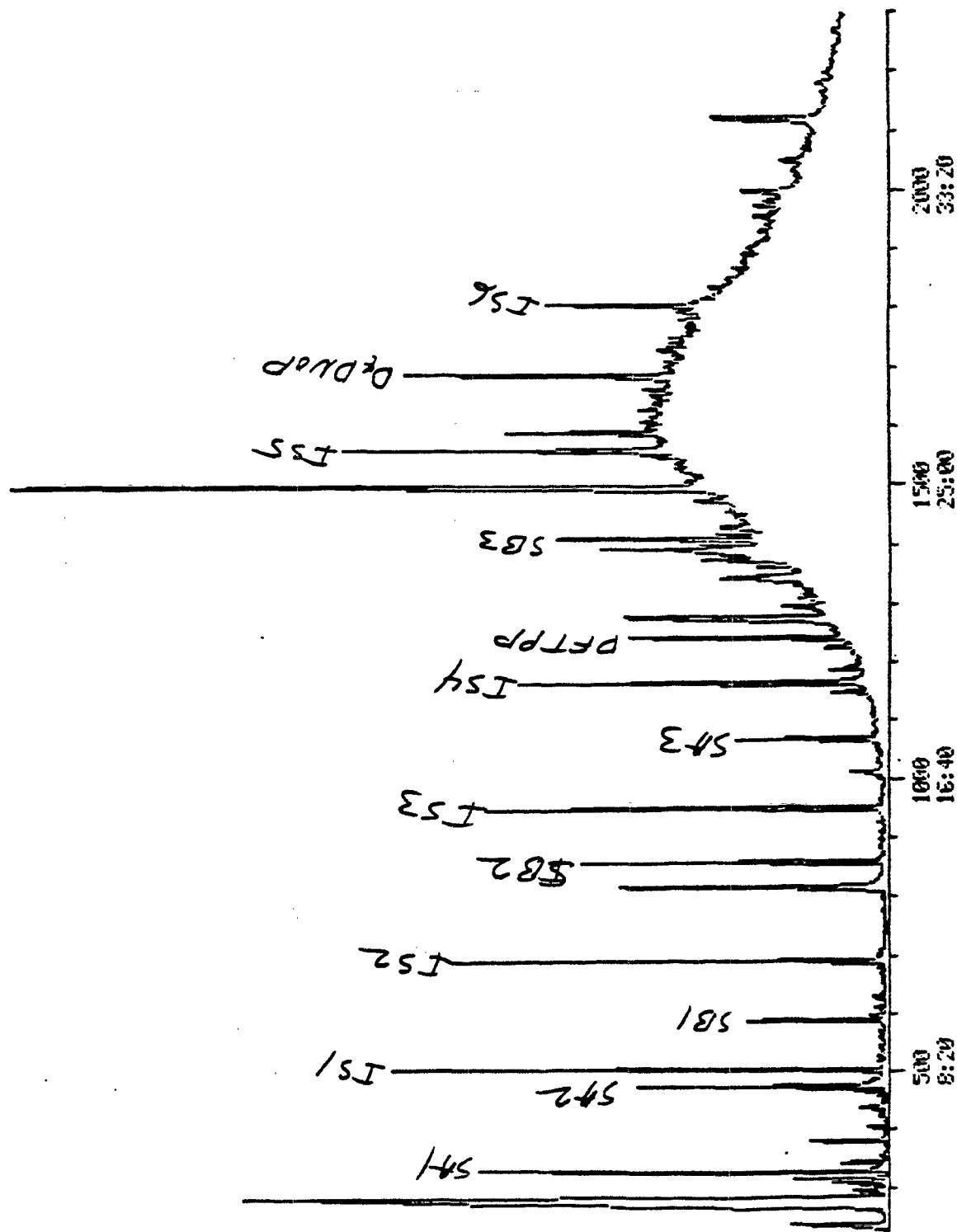
RIC
08/01/86 0:43:00
SAMPLE: CE 840, 30.28 G/ML
CONDOS.: -
RANGE: G 1,2300 LABEL: N 4,10.0 QUAN: A 6, 2.0 J 0 BASE: U 20, 3

SCANS 220 TO 2300

100.0

RIC

807



SCAN
TIME

2000
33:20

1500
25:00

1000
16:40

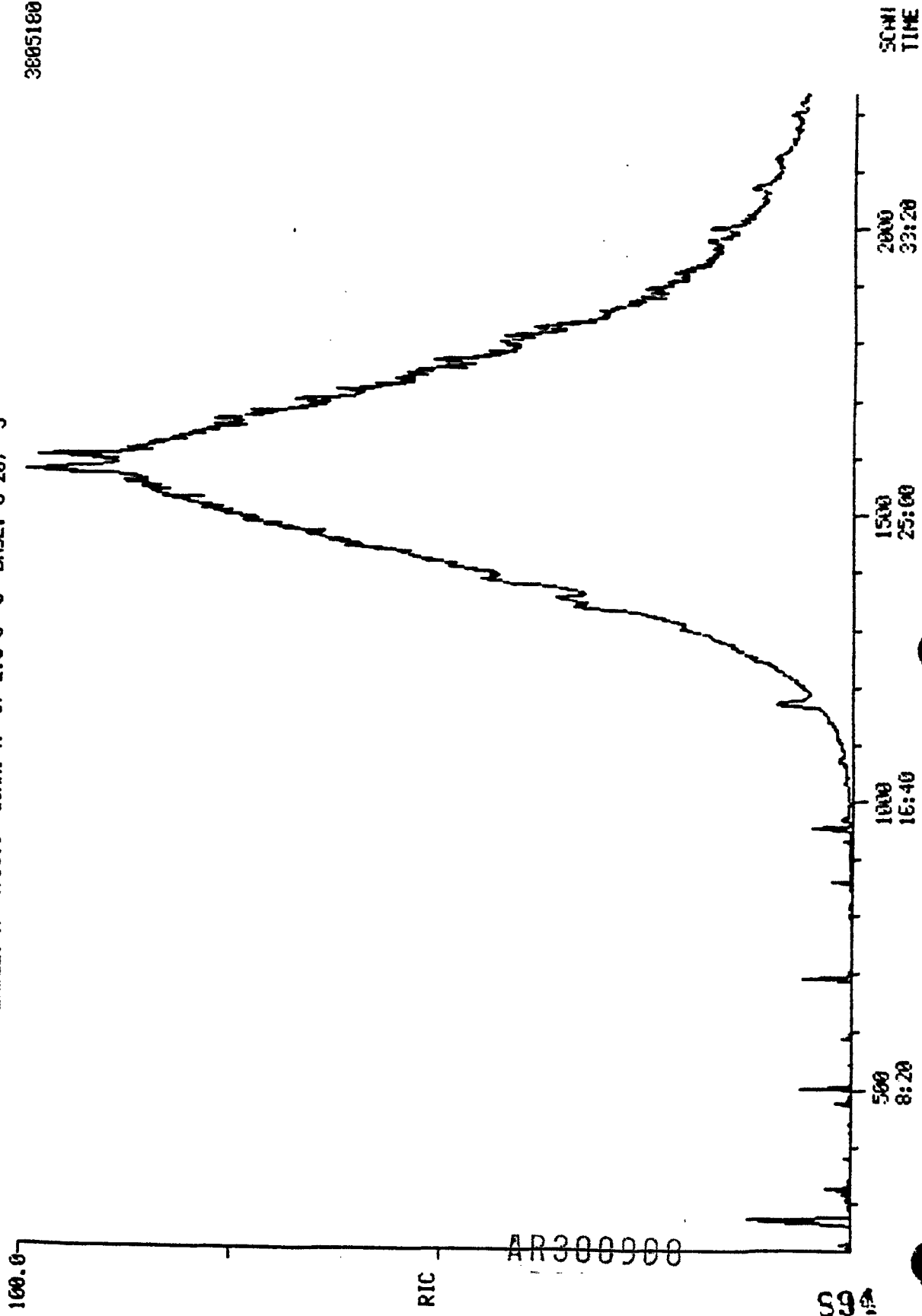
500
8:20

AR300997

L

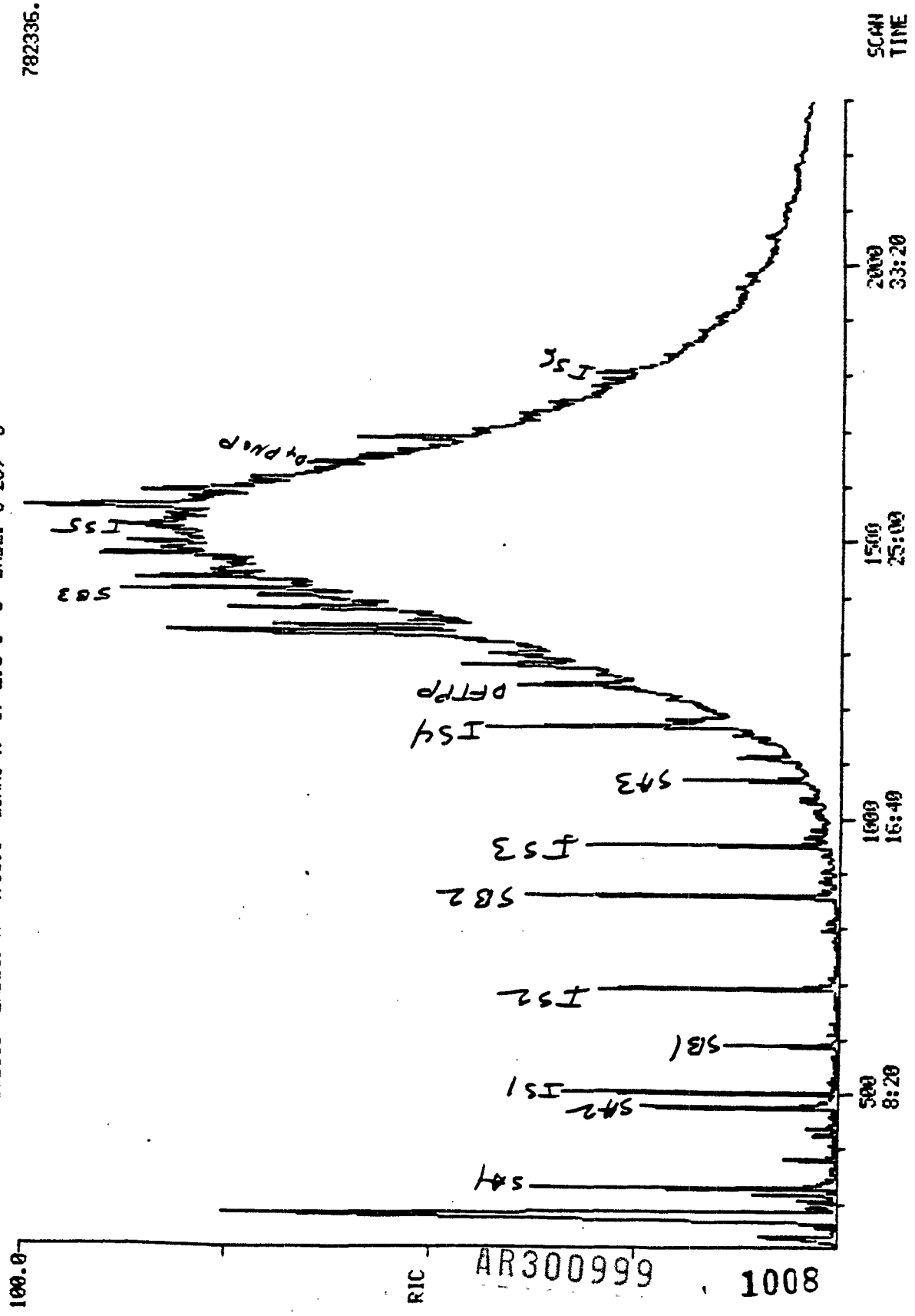
David
Don

RIC
08/01/85 9:34:00 DATA: L222001A8 #1 SCANS 220 TO 2236
SAMPLE: CE 901 30.36G/2ML CALI: FC4310 #2
COND.: -
RANGE: G 1.2236 LABEL: N 4.10.0 QUAN: A 6. 2.0 J 0 BASE: U 20, 3



Handwritten: L
782335.

DATA: L222101A8 #1
CALI: FC4310 #2
SCANS 220 TO 2300
08/01/86 16:11:00
SAMPLE: CE 902, 30.9G/IML
COND.: -
RANGE: G 1,2300 LABEL: N 4,10.0 QUAN: A 6, 2.0 J 0 BASE: U 20, 3

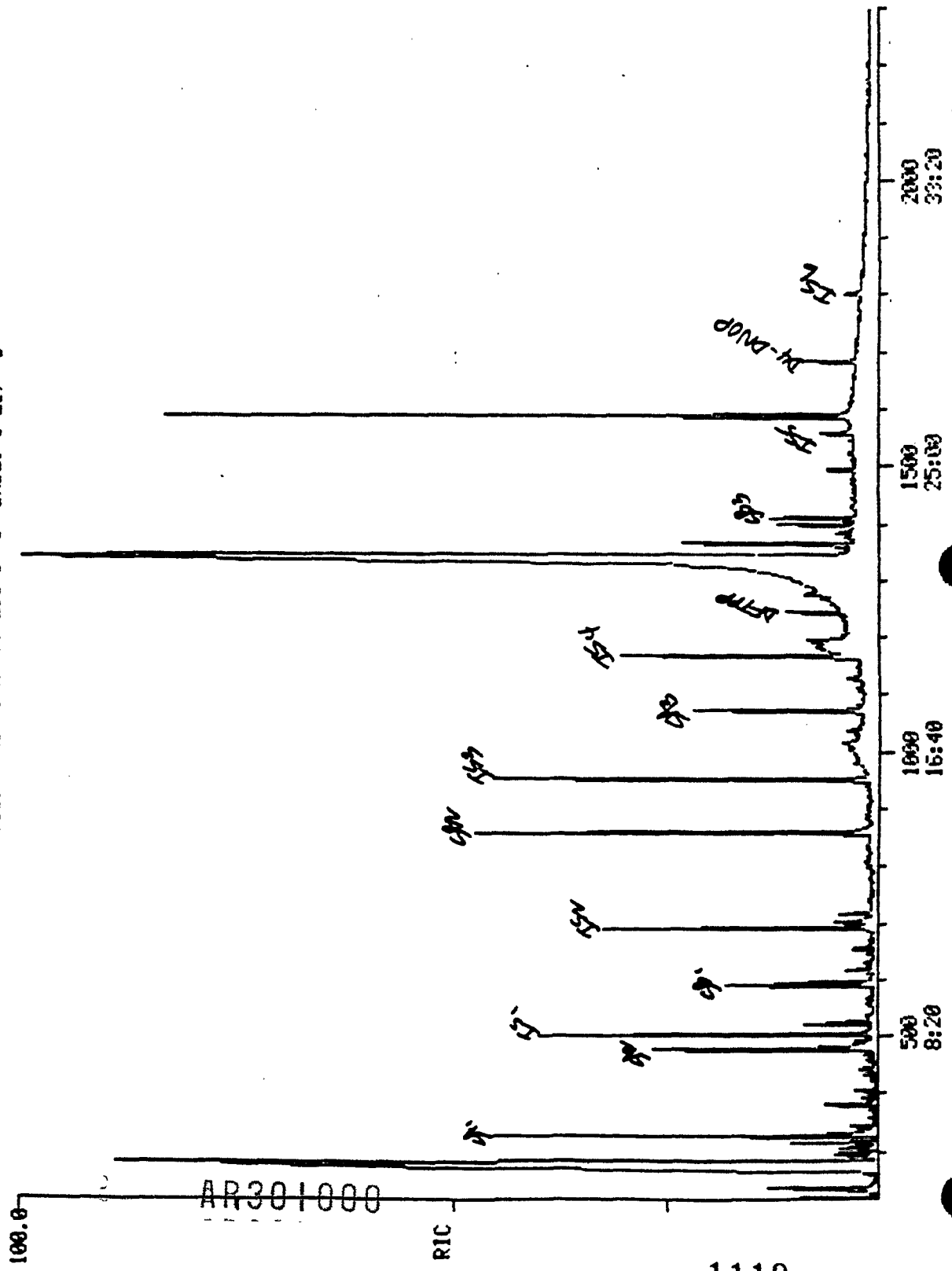


Don't send

L

DATA: L222281ABRI #1 SCANS 220 TO 2300
CALI: FC4310 #2

RIC
08/01/86 20:12:00
SAMPLE: CE 903, 30.00/1ML
CONDOS.: -
RANGE: G 1,2300 LABEL: N 4,10.0 QUAN: A 5, 2.0 J 0 BASE: U 20, 3



SCAN
TIME

2000
33:20

1500
25:00

1000
16:40

500
8:20

1119

AR301000

RIC
 08/05/85 13:43:00
 SAMPLE: CE 904 (0.53G/ML)
 CONDS.: -
 RANGE: G 1,2300 LABEL: N 4,10.0 QIAN: A 6, 2.0 J 0 BASE: U 20, 3

DATA: L22250108 #1
 CALI: FC4310 #2

SCANS 220 TO 2300

Me...
 613520.

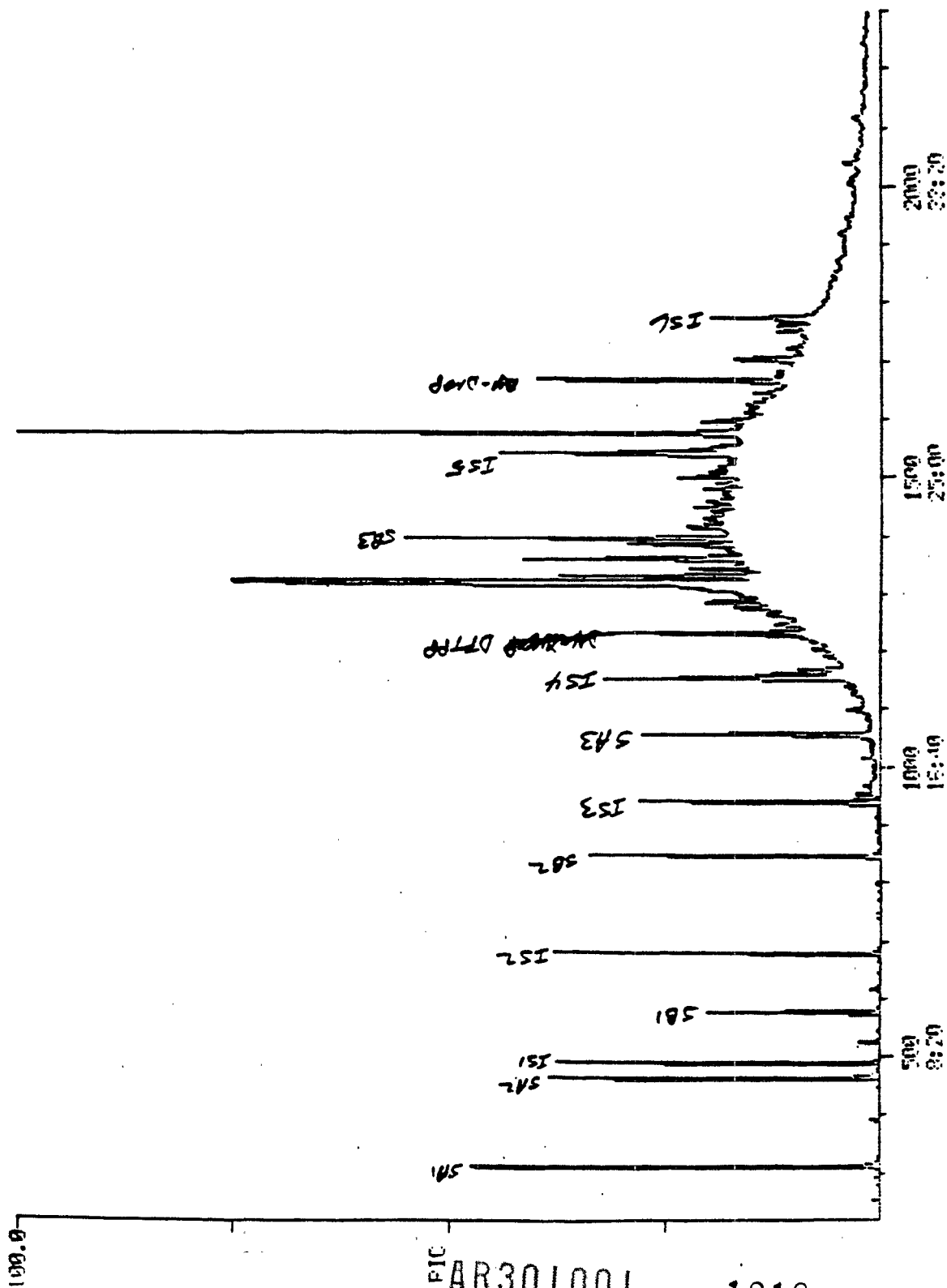


FIG AR301001

RIC
08/06/86 17:57:00

SAMPLE: CE989, 29.42G/1ML

CONDOS: -

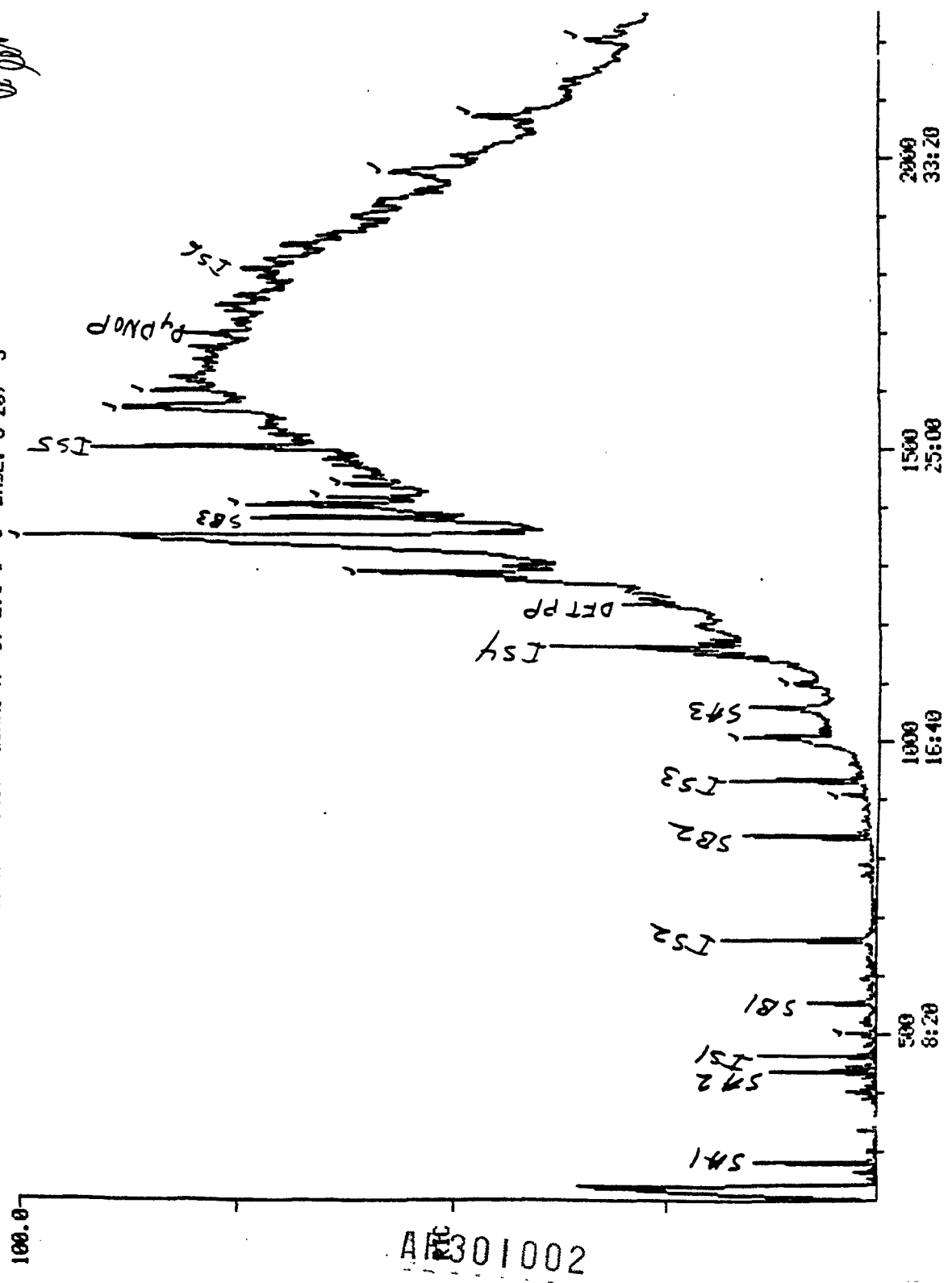
RANGE: G 1.2250 LABEL: N 4.10.0 QUAN: A 6, 2.0 J 0 BASE: U 20, 3

DATA: L22300148 #1
CALI: FC438 #15

SCANS 220 TO 2250

607232.

Q. J. J.



AP301002

1679

RIC

03/06/86 19:08:00

SAMPLE: CE910, 30.79G/1ML

CUNDS.: -

RANGE: G 1.2250 LABEL: N 4.10.0 QUAN: A 6, 2.0 J 0 BASE: U 20, 3

DATA: L223101AB #1

CALI: FC438 #15

SCANS 220 TO 2250

Unlabeled

637952.

100.0

RIC

1824

AR301003

145

151

152

181

IS 2

582

IS 3

543

IS 4

240402

IS 5

IS 6

500

8:20

1000

16:40

1500

25:00

2000

33:20

SCAN

TIME

Case No. : 6162/6479
Contract No. : C8 01 6958

Laboratory : California Analytical Labs
GC Column : Mixed Phase

GC Instrument ID : 6

Date of Analysis : 1 AUG 86 Time of Analysis : 1538 Laboratory ID : Inda			Date of Analysis : 2 AUG 86 Time of Analysis : 0457 Laboratory ID : Inda		
Compound	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF OR QUANT	PERCENT DIFF **
alpha-BHC	2.387	2.339 - 2.435	353900	Quant	-1.70
beta-BHC	2.961	2.902 - 3.020	273700	Quant	43.70
gamma-BHC	3.582	3.510 - 3.654	253200	Quant	-2.09
Heptachlor	5.179	5.075 - 5.283	167200	Quant	-2.81
Heptachlor Epoxide	6.486	6.356 - 6.616	132200	Quant	-1.82
Endosulfan I	7.902	7.744 - 8.060	120900	Quant	-3.10
Dieldrin					
4,4' - DDE					
Endrin					
Endosulfan II	11.518	11.288 - 11.748	192800	Quant	-2.70
4,4' - DDD					
Endosulfan Sulfate	13.867	13.590 - 14.144	47050	Quant	16.76
4,4' - DDT	26.595	26.063 - 27.127	10667	Quant	35.31
Methoxychlor					
Endrin Ketone					
Tech. Chlordane					
alpha - Chlordane*					
gamma - Chlordane*					
Toxaphene					
Aroclor - 1016					
Aroclor - 1221					
Aroclor - 1232					
Aroclor - 1242					
Aroclor - 1248					
Aroclor - 1254					
Aroclor - 1260					

** CONF = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

* See Exhibit E, Part 7

AR301005

2655

Case No. : 6162/1977 8 01 6958 Laboratory : California Analytical Labs
 Contract No. : GC Column : Mixed Phase GC Instrument ID : 6

Compound	1 AUG 86			2 AUG 86		
	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF OR QUANT	RT	CALIBRATION FACTOR
alpha-BHC	2.307	2.339 - 2.435	353900	Quant	2.361	346200
beta-BHC	2.961	2.902 - 3.020	273700	Quant	2.932	182700
delta-BHC	3.582	3.510 - 3.654	253200	Quant	3.545	249200
Heptachlor	5.179	5.075 - 5.283	167200	Quant	5.122	167100
Aldrin	6.486	6.356 - 6.616	132200	Quant	6.412	130950
Heptachlor Epoxide	7.902	7.744 - 8.060	120900	Quant	7.817	123850
Endosulfan I						
Bifenthrin						
4,4' - DDE						
Endrin						
Endosulfan II	11.518	11.288 - 11.748	192800	Quant	11.385	207050
4,4' - DDB						
Endosulfan Sulfate						
4,4' - DDT	13.867	13.590 - 14.144	47050	Quant	13.712	35817
Methoxychlor	26.595	26.063 - 27.127	10667	Quant	26.291	7820
Endrin Ketone						
Tech. Chlordane						
alpha - Chlordane*						
gamma - Chlordane*						
Toxaphene						
Aroclor - 1016						
Aroclor - 1221						
Aroclor - 1232						
Aroclor - 1242						
Aroclor - 1248						
Aroclor - 1254						
Aroclor - 1260						

** CONF = CONFIRMATION (<20% DIFFERENCE)
 QUANT. = QUANTITATION (<15% DIFFERENCE)

* See Exhibit E, Part 7

AR301006
 2657

Case No. : 6162/4477
Contract No. :

08 01 6958

Laboratory : California Analytical Labs
GC Column (Mixed Phase)

GC Instrument ID : 6

Compound	1 AUG 86			2 AUG 86		
	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF OR QUANT	RT	CALIBRATION FACTOR
alpha-BHC	2.367	2.339 - 2.435	353900	Quant	2.378	356900
beta-BHC	2.961	2.902 - 3.020	273700	Quant	2.951	223700
delta-BHC	3.582	3.510 - 3.654	253200	Quant	3.567	257900
Heptachlor	5.179	5.075 - 5.283	167200	Quant	5.155	171000
Aldrin	6.486	6.356 - 6.616	132200	Quant	6.449	134150
Heptachlor Epoxide	7.902	7.744 - 8.060	120900	Quant	7.859	124400
Endosulfan I	11.518	11.288 - 11.748	192800	Quant	11.444	207650
Endosulfan II	13.867	13.590 - 14.144	47050	Quant	13.780	40550
Endosulfan Sulfate	26.595	26.063 - 27.127	10667	Quant	26.411	9217
4,4' - DDE						
4,4' - DDD						
4,4' - DDT						
Methoxychlor						
Endrin Ketone						
Tech. Chlordane						
alpha - Chlordane*						
gamma - Chlordane*						
Toxaphene						
Aroclor - 1016						
Aroclor - 1221						
Aroclor - 1232						
Aroclor - 1242						
Aroclor - 1248						
Aroclor - 1254						
Aroclor - 1260						

* See Exhibit E, Part 7

** CONF = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

AR301007

2680

Case No. : 6162/4499
Contract No. : 08 01 6958

Laboratory : California Analytical Labs
GC Column : Mixed Phase

GC Instrument ID : 6

Compound	1 AUG 86			2 AUG 86		
	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF OR QUANT	RT	CALIBRATION FACTOR
alpha - BHC	1.909	1.871 - 1.947	45400	Quant	1.808	459000
beta - BHC	2.692	2.628 - 2.756	113300	Quant	2.666	118800
delta - BHC	3.138	3.075 - 3.201	285900	Quant	3.120	292700
gamma - BHC						
Heptachlor						
Aldrin						
Heptachlor Epoxide						
Endosulfan I						
Dieldrin	7.613	7.461 - 7.765	117100	Quant	7.564	121900
4,4' - DDE	9.590	9.398 - 9.782	60050	Quant	9.529	61250
Endrin						
Endosulfan II	11.433	11.204 - 11.662	66533	Quant	11.350	70167
4,4' - DDD	17.161	16.798 - 17.484	12683	Quant	17.012	15333
Endosulfan Sulfate						
4,4' - DDT						
Methoxychlor						
Endrin Ketone	24.106	23.624 - 24.588	76583	Quant	23.923	80917
Tech. Chlordane						
alpha - Chlordane*						
gamma - Chlordane*						
Toxaphene						
Aroclor - 1016						
Aroclor - 1221						
Aroclor - 1232						
Aroclor - 1242						
Aroclor - 1248						
Aroclor - 1254						
Aroclor - 1260						

** CONF = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

* See Exhibit E, Part 7

AR301008

2662

Case No. : 28454
Contract No. 68-01- 6458

Laboratory : California Analytical Labs
GC Column : Mixed Phase

GC Instrument ID : 6

Compound	3 AUG 86			3 AUG 86		
	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF OR QUANT	RT	CALIBRATION FACTOR
alpha-BHC	2.372	2.325 - 2.419	384100	Quant	2.355	374000
beta-BHC	2.942	2.883 - 3.001	293000	Quant	2.923	260900
delta-BHC	3.559	3.488 - 3.630	272900	Quant	3.537	265800
Heptachlor	5.143	5.040 - 5.246	183100	Quant	5.114	178200
Aldrin	6.438	6.309 - 6.567	130650	Quant	6.401	128950
Heptachlor Epoxide	7.846	7.689 - 8.003	132500	Quant	7.805	132100
Endosulfan I						
Endosulfan II	11.435	11.206 - 11.664	24317	Quant	11.363	28583
4,4' - DDD						
Endosulfan Sulfate	13.766	13.491 - 14.041	47483	Quant	13.694	37883
4,4' - DDT	26.387	25.859 - 26.915	10470	Quant	26.259	8650
Methoxychlor						
Endrin Ketone						
Endrin						
alpha - Chlordane*						
gamma - Chlordane*						
Isoxaphene						
Aroclor - 1016						
Aroclor - 1221						
Aroclor - 1232						
Aroclor - 1242						
Aroclor - 1248						
Aroclor - 1254						
Aroclor - 1260						

** CONF = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

* See Exhibit E, Part 7

FORM 1X

AR301009

715%

U

Case No. : 25436
 Contract No. 68-01-14458

Laboratory : California Analytical Labs
 GC Column : Mixed Phase

GC Instrument ID : 6

Compound	3 AUG 86			5 AUG 86		
	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF OR QUANT	RT	CALIBRATION FACTOR
alpha-BHC	2.372	2.325 - 2.419	384100	Quant	2.322	345400
beta-BHC	2.942	2.893 - 3.001	293000	Quant	2.881	258100
gamma-BHC	3.559	3.488 - 3.630	272900	Quant	3.485	252300
Aldrin	5.163	5.040 - 5.246	183100	Quant	5.035	168500
Heptachlor Epoxide	6.438	6.309 - 6.567	130650	Quant	6.301	119500
Endosulfan I	7.846	7.689 - 8.003	132500	Quant	7.683	119050
Dieldrin	11.435	11.206 - 11.666	24317	Quant	11.193	22117
Endosulfan II	13.766	13.691 - 14.041	47483	Quant	13.478	40100
Endosulfan Sulfate	26.307	25.859 - 26.915	10470	Quant	25.845	8160
Methoxychlor						
Endrin Ketone						
Tech. Chlordane						
alpha - Chlordane*						
gamma - Chlordane*						
Toxaphene						
Aroclor - 1016						
Aroclor - 1221						
Aroclor - 1232						
Aroclor - 1242						
Aroclor - 1248						
Aroclor - 1254						
Aroclor - 1260						

715%

** CONF = CONFIRMATION (<20% DIFFERENCE)
 QUANT. = QUANTITATION (<15% DIFFERENCE)

* See Exhibit E, Part 7

FORM IX

AR301010

0000

Case No. : 25454-6163
Contract No. 68-01-6458

Laboratory : California Analytical Labs
GC Column : Mixed Phase

GC Instrument ID : 6

Compound	3 AUG 86			5 AUG 86		
	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF OR QUANT	RT	CALIBRATION FACTOR
alpha - BHC	1.895	1.857 - 1.933	495200	Quant	1.852	405800
beta - BHC	2.660	2.607 - 2.713	124900	Quant	2.605	102700
delta - BHC	3.114	3.052 - 3.176	304100	Quant	3.048	247700
gamma - BHC						
Heptachlor						
Aldrin						
Heptachlor Epoxide						
Endosulfan I						
Dieldrin	7.546	7.395 - 7.697	130100	Quant	7.406	114850
4,4' - DDE	9.495	9.305 - 9.685	58650	Quant	9.332	59250
Endrin						
Endosulfan II	11.326	11.099 - 11.553	74700	Quant	11.113	65283
4,4' - DDD	16.967	16.628 - 17.306	13717	Quant	16.665	12850
Endosulfan Sulfate						
4,4' - DDT						
Methoxychlor						
Endrin Ketone	23.861	23.384 - 24.338	87333	Quant	23.453	73850
Tech. Chlordane						
alpha - Chlordane*						
gamma - Chlordane*						
Toxaphene						
Aroclor - 1016						
Aroclor - 1221						
Aroclor - 1232						
Aroclor - 1242						
Aroclor - 1248						
Aroclor - 1254						
Aroclor - 1260						

715%

** CONF = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

See Exhibit E, Part 7

FORM 1X

AR301011

2699

EVALUATION OF RETENTION TIME SHIFT
FOR DIBUTYLCHLORENDATE

Mix & phase

SMO SAMPLE NO.	LAB ID#	ANALYSIS DATE	TIME OF INJECTION	PERCENT DIFFERENCE	LESS THAN OR EQUAL TO 2.0
	D1	1 AUG 86	1222	0.6	
	D2	1 AUG 86	1255	0.4	
	D3	1 AUG 86	1328	0.2	
	A	1 AUG 86	1400	0.0	
	B	1 AUG 86	1433	-0.1	
	C	1 AUG 86	1506	-0.2	
	IND A	1 AUG 86	1538	-0.2	
	IND B	1 AUG 86	1612	-0.3	
	IND A	1 AUG 86	1645	-0.2	
	IND B	1 AUG 86	1718	-0.2	
	TOXAPHENE	1 AUG 86	1751	-0.1	
	CHLORDANE	1 AUG 86	1824	0.0	
	1016/1260	1 AUG 86	1857	0.0	
	1221	1 AUG 86	1933	0.0	
	1232	1 AUG 86	2006	0.2	
	1242	1 AUG 86	2039	0.4	
	1248	1 AUG 86	2112	0.5	
	1254	1 AUG 86	2145	0.7	
	PS MIX	1 AUG 86	2219	1.0	
	L2225 MB	1 AUG 86	2252	1.1	
	L2225	1 AUG 86	2325	1.8	
	L2225 MS	1 AUG 86	2358	2.3	
	L2225 MSD	2 AUG 86	0032	2.1	
	L2226	2 AUG 86	0105	2.1	
	B	2 AUG 86	0138	2.1	
	L2227 MB	2 AUG 86	0211	2.2	
	L2227	2 AUG 86	0243	2.3	
	L2228	2 AUG 86	0317	2.3	
	L2229	2 AUG 86	0349	2.2	
	L2230	2 AUG 86	0423	*	
	IND A	2 AUG 86	0457	2.3	
	IND B	2 AUG 86	0530	2.1	
	L2230	2 AUG 86	0603	3.0	
	L2231	2 AUG 86	0639	*	
	L2232	2 AUG 86	0715	2.4	
	L2233	2 AUG 86	0756	2.5	
	L2234	2 AUG 86	0835	*	
	L2234 MS	2 AUG 86	0908	*	
	B	2 AUG 86	0942	2.0	
	L2234 MSD	2 AUG 86	1014	*	
	L2236	2 AUG 86	1048	*	
	L2239 MB	2 AUG 86	1121	1.5	
	L2239	2 AUG 86	1154	1.3	
	L2240	2 AUG 86	1227	*	
	IND A	2 AUG 86	1300	1.0	
	IND B	2 AUG 86	1333	0.7	
	L2240 MS	2 AUG 86	1405	*	
	L2240 MSD	2 AUG 86	1438	*	
	L2241	2 AUG 86	1512	0.5	
	L2242	2 AUG 86	1545	0.5	
	L2243	2 AUG 86	1618	0.5	
	B	2 AUG 86	1652	0.3	
	L2244	2 AUG 86	1724	*	
	L2245	2 AUG 86	1758	*	
	L2246	2 AUG 86	1831	*	

72.0%

AR301012

2645

EVALUATION OF RETENTION TIME SHIFT
FOR DIBUTYLCHLORENDATE

Mix-d Phss

SMO SAMPLE NO.	LAB ID#	ANALYSIS DATE	TIME OF INJECTION	PERCENT DIFFERENCE	LESS THAN OR EQUAL TO 2.0
<u>DDT Series</u>					
<u>Std</u>	D1	3 AUG 86	0445	-0.4	
	D2	3 AUG 86	0517	-0.3	
	D3	3 AUG 86	0550	-0.1	
<u>Eval Mix Std</u>	A	3 AUG 86	0623	0.0	
	B	3 AUG 86	0656	0.2	
	C	3 AUG 86	0728	0.5	
<u>End Std Mix A</u>	IND A	3 AUG 86	0801	0.7	
<u>End Std Mix B</u>	IND B	3 AUG 86	0834	0.8	
<u>Multirespond Std</u>	TOXAPHENE	3 AUG 86	0907	1.1	
	CHLORDANE	3 AUG 86	0940	1.4	
	1016/1260	3 AUG 86	1013	1.7	
	1221	3 AUG 86	1048	1.9	
	1232	3 AUG 86	1121	2.1	
	1242	3 AUG 86	1154	2.2	
	1248	3 AUG 86	1227	2.4	
	1254	3 AUG 86	1254	2.5	
<u>Solid Std</u>	PS MIX	3 AUG 86	1334	2.7	
<u>Eval Mix Std</u>	B	3 AUG 86	1406	2.8	
	25454-MB	3 AUG 86	1439	2.8	
	25454-1	3 AUG 86	1512	2.9	
	25454-2	3 AUG 86	1545	3.0	
	25454-5	3 AUG 86	1618	3.1	
	25454-6	3 AUG 86	1651	3.0	
<u>End Std Mix A</u>	IND A	3 AUG 86	1724	2.9	
<u>End Std Mix B</u>	IND B	3 AUG 86	1757	2.8	
	25454-6MS	3 AUG 86	1830	2.8	
	25454-6MSD	3 AUG 86	1903	2.6	
	25454-7	3 AUG 86	1936	2.4	
	25454-8	3 AUG 86	2011	2.2	
<u>Eval Mix Std</u>	25454-9	3 AUG 86	2046	1.9	
	B	3 AUG 86	2121	1.7	
	25454-10	3 AUG 86	2155	1.5	
	25454-11	3 AUG 86	2229	1.3	
<u>End Std Mix A</u>	IND A	3 AUG 86	2303	1.2	
<u>End Std Mix B</u>	IND B	3 AUG 86	2337	1.0	
<u>CE 906</u>	L2227	4 AUG 86	0804	*	
<u>CE 910</u>	L2231	4 AUG 86	0837	*	
<u>CE 914</u>	L2235	4 AUG 86	0910	*	
<u>CE 910</u>	L2231	4 AUG 86	0943	2.6	
	L2240	4 AUG 86	1017	2.6	
<u>Eval Mix Std</u>	B	4 AUG 86	1050	2.7	
	L2244	4 AUG 86	1123	2.8	
	L2245	4 AUG 86	1156	2.8	
	L2246	4 AUG 86	1230	3.0	
	L2234-MS	4 AUG 86	2053	*	
	25454-7	5 AUG 86	0044	*	
<u>End Std Mix A</u>	IND A	5 AUG 86	0136	1.0	
<u>End Std Mix B</u>	IND B	5 AUG 86	0232	1.0	
	25454-10	5 AUG 86	0317	1.4	
<u>End Std Mix A</u>	IND A	5 AUG 86	0352	2.0	
<u>End Std Mix B</u>	IND B	5 AUG 86	0458	2.0	
* - SURROGATE	DILUTED OUT				

AR301013

2651

3958-2100

EVALUATION OF RETENTION TIME SHIFT
FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID#	ANALYSIS DATE	TIME OF INJECTION	PERCENT DIFFERENCE	LESS THAN OR EQUAL TO 2.0
DDT Series					
Std	D1	1 AUG 86	1222	0.7	
Std	D2	1 AUG 86	1255	0.4	
Std	D3	1 AUG 86	1328	0.2	
Eval Mix Std	A	1 AUG 86	1400	0.0	
Std	B	1 AUG 86	1433	-0.1	
Std	C	1 AUG 86	1506	-0.2	
Ind Std Mix A	IND A	1 AUG 86	1538	-0.2	
Ind Std Mix B	IND B	1 AUG 86	1612	-0.1	
Ind Std Mix A	IND A	1 AUG 86	1645	-0.2	
Ind Std Mix B	IND B	1 AUG 86	1718	0.0	
Multirespon Std	TOXAPHENE	1 AUG 86	1751	-0.1	
	CHLORDANE	1 AUG 86	1824	-0.1	
	1016/1260	1 AUG 86	1857	0.0	
	1221	1 AUG 86	1933	0.0	
	1232	1 AUG 86	2006	0.2	
	1242	1 AUG 86	2039	0.4	
	1248	1 AUG 86	2112	0.5	
	1254	1 AUG 86	2145	0.6	
Spikes Std	PS MIX	1 AUG 86	2219	1.0	
Multirespon Blank	L2225 MB	1 AUG 86	2252	1.1	
CE 904	L2225	1 AUG 86	2325	0.4	
CE 904 MS	L2225 MS	1 AUG 86	2358	0.3	
CE 904 MSD	L2225 MSD	2 AUG 86	0032	1.1	
CE 905	L2226	2 AUG 86	0105	1.8	
Eval Mix Std	B	2 AUG 86	0138	2.1	
Multirespon Blank	L2227 MB	2 AUG 86	0211	2.1	
CE 906	L2227	2 AUG 86	0243	2.2	
CE 907	L2228	2 AUG 86	0317	2.2	
CE 908	L2229	2 AUG 86	0349	2.2	
CE 909	L2230	2 AUG 86	0423	*	
Ind Std Mix A	IND A	2 AUG 86	0457	2.2	
Ind Std Mix B	IND B	2 AUG 86	0530	2.4	
CE 909	L2230	2 AUG 86	0603	2.0	
CE 910	L2231	2 AUG 86	0639	*	
CE 911	L2232	2 AUG 86	0715	2.3	
CE 912	L2233	2 AUG 86	0756	2.2	
CE 913	L2234	2 AUG 86	0835	*	
CE 913 MS	L2234 MS	2 AUG 86	0908	*	
Eval Mix Std	B	2 AUG 86	0942	1.9	
CE 913 MSD	L2234 MSD	2 AUG 86	1014	*	
CE 915	L2236	2 AUG 86	1048	*	
	L2239 MB	2 AUG 86	1121	1.4	
	L2239	2 AUG 86	1154	1.2	
	L2240	2 AUG 86	1227	*	
Ind Std Mix A	IND A	2 AUG 86	1300	0.9	
Ind Std Mix B	IND B	2 AUG 86	1333	0.9	
	L2240 MS	2 AUG 86	1405	*	
	L2240 MSD	2 AUG 86	1438	*	
	L2241	2 AUG 86	1512	0.4	
	L2242	2 AUG 86	1545	0.4	
	L2243	2 AUG 86	1618	0.3	
Eval Mix Std	B	2 AUG 86	1652	0.3	
	L2244	2 AUG 86	1724	*	
	L2245	2 AUG 86	1758	*	
	L2246	2 AUG 86	1831	*	

AR301014
2651

EVALUATION OF RETENTION TIME SHIFT
FOR DIBUTYLCHLORENDATE

3% SP-2100

SMO SAMPLE NO.	LAB ID#	ANALYSIS DATE	TIME OF INJECTION	PERCENT DIFFERENCE	LESS THAN OR EQUAL TO 2.0
DDT Series					
Std	D1	3 AUG 86	0445	-0.3	
	D2	3 AUG 86	0517	-0.3	
	D3	3 AUG 86	0550	0.1	
Envl Mux Std	A	3 AUG 86	0623	0.0	
	B	3 AUG 86	0656	0.2	
	C	3 AUG 86	0728	0.5	
Ind Std Mux A	IND A	3 AUG 86	0801	0.9	
Ind Std Mux B	IND B	3 AUG 86	0834	1.1	
Multirespon Std	TOXAPHENE	3 AUG 86	0907	1.2	
	CHLORDANE	3 AUG 86	0940	1.4	
	1016/1260	3 AUG 86	1013	1.7	
	1221	3 AUG 86	1048	1.8	
	1232	3 AUG 86	1121	2.0	
	1242	3 AUG 86	1154	2.2	
	1248	3 AUG 86	1227	2.3	
	1254	3 AUG 86	1254	2.4	
Spike Std	PS MIX	3 AUG 86	1334	2.6	
Envl Mux Std	B	3 AUG 86	1406	2.7	
	25454-MB	3 AUG 86	1439	2.7	
	25454-1	3 AUG 86	1512	2.8	
	25454-2	3 AUG 86	1545	2.9	
	25454-5	3 AUG 86	1618	2.8	
	25454-6	3 AUG 86	1651	2.8	
Ind Std Mux A	IND A	3 AUG 86	1724	2.9	
Ind Std Mux B	IND B	3 AUG 86	1757	3.0	
	25454-6MS	3 AUG 86	1830	2.7	
	25454-6MSD	3 AUG 86	1903	2.5	
	25454-7	3 AUG 86	1936	2.3	
	25454-8	3 AUG 86	2011	2.1	
	25454-9	3 AUG 86	2046	1.8	
Envl Mux Std	B	3 AUG 86	2121	1.6	
	25454-10	3 AUG 86	2155	1.4	
	25454-11	3 AUG 86	2229	1.2	
Ind Std Mux A	IND A	3 AUG 86	2303	1.3	
Ind Std Mux B	IND B	3 AUG 86	2337	1.2	
CE 906	L2227	4 AUG 86	0804	*	
CE 910	L2231	4 AUG 86	0837	*	
CE 914	L2235	4 AUG 86	0910	*	
CE 910	L2231	4 AUG 86	0943	2.5	
	L2240	4 AUG 86	1017	2.4	
Envl Mux Std	B	4 AUG 86	1050	2.6	
	L2244	4 AUG 86	1123	2.6	
	L2245	4 AUG 86	1156	2.6	
	L2246	4 AUG 86	1230	2.7	
	L2234-MS	4 AUG 86	2053	*	
	25454-7	5 AUG 86	0044	*	
Ind Std Mux A	IND A	5 AUG 86	0136	1.0	
Ind Std Mux B	IND B	5 AUG 86	0232	1.0	
	25454-10	5 AUG 86	0317	1.1	
Ind Std Mux A	IND A	5 AUG 86	0352	2.0	
Ind Std Mux B	IND B	5 AUG 86	0458	2.0	

* = SURROGATE DILUTED OUT

AR39J015

AR39J015



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-822-3752

DATE: 10 October 1986
SUBJECT: Region III CLP Data QA Review
FROM: Patricia J. Krantz (3ES20) *PJK*
DPO, Region III
TO: Duane A. Geuder, QAO (WH-548A)
OERR

RECEIVED
FEB 08 1987
GEOSCIENCES DEPT

Attached is a Region III CLP Data Review done by reviewers at
Roy F. Weston, Inc.:

Case No.: 6220 (Inorganic) Site: Kane & Lombard

Laboratory: Chemtech Reviewer: *Dianne S. Therry*
Dianne S. Therry

Attachment

cc: Gareth Pearson, EMSL-LV

Regional DPO: William Coakley, Region II

✓ Action FYI

AR301016

Case #/Site I.D.: 6220/Kane & Lombard
Sample Numbers: MCF616-MCF624

Site Manager: Charles Kufs

Data Review Team: Dianne Theriault, Nancy Myers
Review Completed: October 7, 1986

Introduction

The set of samples for Case 6220 contained nine soil samples which were analyzed through the Contract Laboratory Program Routine Analytical Services by one laboratory.

This data was reviewed according to the National Functional Guidelines for Evaluating Inorganic Analyses. All data has been validated with regard to usability. The methods used by the Contract Lab Program (CLP) must be evaluated by each individual user as to whether the scope, precision and accuracy meet the needs of the project.

The laboratory performed the analyses in compliance with CLP, including the required quality control. Holding times were met for all samples. All calibration criteria were met. Problems associated with data usability are discussed in the following section.

Qualifiers: Soil Samples

1. Due to low matrix spike recovery for antimony (32%) and arsenic (45%), reported results and detection limits may be biased low, and have been qualified as estimated (J or UJ). Actual values may be higher than reported.

<u>Analyte</u>	<u>Bias</u>	<u>Samples Affected</u>
Antimony	12-52%	All Samples
Arsenic	35-65%	All Samples

AR301017



USEPA - Region III
Inorganic QA Data Review
Page 2 of 2

2. All results for selenium have been designated unusable (R), except sample MCF617. Due to no recovery (0%) of the matrix spike, the possibility of false negatives exists, and detection limits may be elevated over what is reported. Sample MCF617 may be biased significantly low, and has been designated as quantitatively questionable (J) for selenium. The reported concentration for sample MCF617 is the minimum concentration at which the analyte is present.

Summary

Metals and cyanide for all samples were successfully analyzed. Areas of concern with respect to data usability include:

- Possible matrix interference indicated by results from matrix spike recoveries
- Possibility of false negatives for selenium

The text of this report has been formatted to address only those problem areas which affect the applications of the data to the site investigation. Documentation of these problems and any other observed areas of laboratory contractual noncompliance are included in a separate report sent to the laboratory's CLP Project Officer. If you have questions or comments on this data review, please contact Dianne Therry.

Enclosures

AR301018

AR301018

SUMMARY

Lab No. 6-2-20 / New - Standard

Laboratory Chemical

Matrix soil

Units mg/kg

EPA TR #	MEF616	MEF617	MEF618	MEF619	MEF620	MEF621	MEF622	MEF623	MEF624	Detect. Limit	Lab. Detect. Limit	Comments
Lab I.D.	6-2-74-01	6-2-74-02	6-2-74-03	6-2-74-04	6-2-74-05	6-2-74-06	6-2-74-07	6-2-74-08	6-2-74-09	ORL	2.1 mit	
Aluminum	5670	8170	8450	14500	8430	11800	3530	2310	1190	40	10.6	matrix spike
Antimony	14 J	[4 J]	U3	U3	U3	U3	U3	U3	U3	12	10.0	matrix spike
Arsenic	104 J	106 J	[1.1 J]	5.2 J	6.5 J	3.8 J	U3	U3	U3	2	1.0	
Barium	1140	2310	[3 J]	5.2	1000	[30 J]	[18 J]	[12 J]		40	10.0	
Beryllium			[0.9 J]	[0.9 J]			2.6	1.4		1	0.8	
Cadmium										1	1.0	
Calcium	36500	11500	[218 J]	[430 J]	33900	2420	[831 J]	[333 J]	9540	1000	43.4	
Chromium	66		24	25	117	19	27	47	64	2	1.6	
Cobalt	[8.4 J]	59		[5.6 J]		[9.2 J]	17	[6.8 J]		10	4.0	
Copper	187	1790	18	16	65	12	67	11	[10.6 J]	5	4.2	
Iron	8900	72400	25500	22700	30700	11200	23100	2600	3900	20	4.4	
Lead	1130	1940	6.9	14	425	13.0	9.3	13.7	7.7	1	0.4	
Magnesium	2020	2420	[60 J]	[1550 J]	1960	[906 J]	[259 J]	[98 J]	[447 J]	1000	42.2	
Manganese	398	1220	34	130	257	143	128	31	22	3	1.8	
Mercury	1.2	0.6		0.1	0.2		0.1			0.04	0.04	
Nickel	63	4530	9.3	12	44	11	19	18		8	4.0	
Potassium	[542 J]	[353 J]	[341 J]	[343 J]	[294 J]	[313 J]	[212 J]	[450 J]	[298 J]	1000	100	
Selenium	R	2.5 J	R	R	R	R	R	R	R	1	0.6	matrix spike
Silver										2	1.0	
Sodium	[420 J]	[342 J]	[227 J]	[229 J]	[307 J]	[320 J]	[329 J]	[247 J]	[607 J]	1000	200	
Thallium										2	1.6	
Tin										8		
Vanadium	40	38	44	37	43	31	56	65		10	4.0	
Zinc	1820	1710	36	53	500	45	58	37	29	4	1.8	
Cyanide					0.43					2	5.8	
% Solids	73.4	73.4	90.0	88.9	76.2	83.0	84.1	84.7	44.0			

AR301019

Date Review Completed 9-27-86
 Case No. 6220 SAS No. _____
 Site Name Kane + Lombard
 Sample Nos. MAF 616-MAF 624

Contract Lab Chem Tech.
 Contract No. 68-01-7307
 Lab DPO William Cookley
 Reviewer N. MYERS
 from Region III Phone _____
 FTS _____

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid	✓			
aqueous				
other				

ICP	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks		1✓		Al 117/233/251
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank		✓		AL 1167
Interference Check Sample	✓			
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		2✓		Sb 32%
Serial Dilution	✓			

FURNACE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blanks	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Control Sample	✓			
Lab Duplicate	✓			
Matrix Spike		2✓	3	As 45% Se 0%
Duplicate Injections	✓			
Analytical Spike	✓			

MERCURY & CYANIDE	OK	FYI	ACTION	COMMENTS
Holding Time	✓			
Calibration Blank	✓			
Initial Calibration	✓			
Continuing Calibration	✓			
Preparation Blank	✓			
Lab Duplicate	✓			
Matrix Spike	✓			

REVIEWER'S COMMENTS:

1. prep blk is less than two - times the IDL - No action required.
2. values outside the $\pm 25\%$ acceptance window - No action required.
3. AR301020
 As many results < 30% recovery; possible severe analytical deficiency, all data flagged unusable.

WA85-J830 - AMENDMENT THREE (3)
U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

8/18 Kane, Lombard

3B Date 8/15/86 EH

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

1

Lab Name Chemtech Consulting Group
SOW No. 785

Case No. 6220
Q.C. Report No. G2-714

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
<u>MCF 616</u>	<u>G2-714-01</u>	<u>MCF 624</u>	<u>G2-714-09</u>
<u>617</u>	<u>-02</u>		
<u>618</u>	<u>-03</u>		
<u>619</u>	<u>-04</u>		
<u>620</u>	<u>-05</u>		
<u>621</u>	<u>-06</u>		
<u>622</u>	<u>-07</u>		
<u>623</u>	<u>-08</u>		

Comments:

ICP interelement and background corrections applied? Yes X No .

If yes, corrections applied before X or after generation of raw data.

Footnotes:

NR - Not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract-required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP), A (for Flame AA) or F (for Furnace AA).

U - Indicates element was analyzed for but not detected. Report with the instrument detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

H - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

M - Indicates duplicate injection results exceeded control limits.

Indicate method used: P for ICP; A for Flame AA and F for Furnace.

AR301021



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-822-3752

DATE: 12 December 1986
SUBJECT: Region III CLP Data QA Review
FROM: Patricia J. Krantz (3ES20) *PK*
DPO, Region III
TO: Duane A. Geuder, QAO (WH-548A)
OERR

Attached is a Region III CLP Data Review done by reviewers at
Roy F. Weston, Inc.:

Case No.: 6220 (Organic) Site: Kane & Lombard
(Revision A, 12/86)
Laboratory: NUS Reviewer: *Dianne S. Therry*
Dianne S. Therry

Attachment

cc: Gareth Pearson, EMSL-LV
Regional DPO: Pat Krantz, Region III
✓ Action FYI

AR301022

WESTON

USEPA - Region III
Organic QA Data Review
Page 1 of 2
(Revision A, 12/86)

Case #/Site I.D.: 6220/Kane and Lombard
Sample Numbers: CE916 to CE924

Site Manager: Charles Kufs

Data Reviewer: Dianne S. Therry *MAI*
Review Completed: 28 October 1986

INTRODUCTION

The set of samples for Case #6220 contained nine soil samples which were analyzed through the Contract Laboratory Program (CLP) routine analytical services by one laboratory.

These data were reviewed according to the National Functional Guidelines for Evaluating Organic Analyses. All data have been validated with regard to usability. The method used by the CLP must be evaluated by each individual user as to whether the scope, precision, and accuracy meet the needs of the project.

The laboratory performed the analyses in compliance with CLP, including the required quality control. Instrument tune and calibrations were within contract specifications except for poor response to 4-nitroaniline, which precludes obtaining usable data for this compound, and a few other minor deviations which did not affect usability. Aside from this, laboratory contamination from solvents and plasticizers was the most significant problem in this data set. Problems associated with data usability are discussed in the following section.

QUALIFIERS

- 1) Laboratory blanks contained methylene chloride, acetone, di-N-butylphthalate and bis(2-ethylhexyl)phthalate at concentrations significant enough to question the reported results. All reported values in the samples have been qualified as not detected (U) and their quantitation limit qualified as estimated (J) in the data summary.

AR301023

USEPA - Region III
Organic QA Data Review
Case #6220/Kane & Lombard
Page 2 of 2
(Revision A, 12/86)

- 2) The response factors during initial and/or continuing calibration for up to six VOA compounds and nine BNA compounds were variable. The sample results and detection limits have been qualified as estimated (J or UJ) for the affected compounds in the data summary.
- 3) Due to very low response factor (<0.05) for 4-nitroaniline during initial calibration, detection limits in all samples have been designated as unusable (R). Failure to detect this compound under this condition does not confirm its absence in the samples. If 4-nitroaniline is critical to this site, follow-up analysis may be necessary.
- 4) Multiple analysis of sample CE917 and CE921 (sample, matrix spike, matrix spike duplicate = 3 analyses) showed good reproducibility for all fractions, except for toluene ($>130\%$ RSD), ethylbenzene (143% RSD) and xylenes (140% RSD) for sample CE917. Results for these compounds in the unspiked sample were approximately ten times higher than in the two spiked samples. The reported results may not reflect the average concentration of these compounds in the sample, and have been qualified as estimated (J).
- 5) PCB-1248 was tentatively identified (N) in sample CE920 at a concentration of 677 ug/kg. Confirmation analysis was not done because the value is below the contract-required detection limit.

SUMMARY

All fractions of all samples were successfully analyzed. Laboratory contamination and response factor variability were areas that affected the usability of the data.

The text of this report has been formatted to address only those problem areas which affects the application of the data to the site investigation. Documentations of these problems and any other observed areas of laboratory contractual noncompliance are included in a separate report sent to the laboratory's CLP Project Officer. If you have questions or comments on this data review, please call me.

Enclosures

AR301024

CASE #/SITE ID: 6220 / Kenex Lombard

VOA
Pg 1-4

DATE SAMPLED:	7-14-86	7-14-86	7-14-86	7-14-86	7-16-86	7-16-86	7-16-86
DATE SAMPLE RECD:	7-16-86	7-16-86	7-16-86	7-16-86	7-18-86	7-18-86	7-18-86
DATE EXTR/PREP'D:	7-24-86	7-25-86	7-24-86	7-24-86	7-25-86	7-24-86	7-25-86
DATE ANALYZED:	7-24-86	7-25-86	7-24-86	7-24-86	7-25-86	7-24-86	7-25-86
CONC/DIL FACTOR:	1	4000	1	1	5	1	1
% MOISTURE:	32	30	10	14	21	18	15
UNITS:	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg	ug/dg
SAMPLE DESCRIPT.:							
CAS Number	TRAFFIC REPORT #:	CE 916	CE 917	CE 918	CE 919	CE 920	CE 921
74-87-3	Chloromethane (1)						
74-89-8	Bromomethane (1)	UJ		UJ	UJ	UJ	UJ
75-01-4	Vinyl Chloride (2)						
75-00-3	Chloroethane (1)	UJ		UJ			
75-08-2	Methylene Chloride	10 UJ	32000 UJ	7 UJ		53 UJ	32 UJ
67-64-1	Acetone (1)	32 UJ	UJ	200 UJ	20 UJ	260 UJ	19 UJ
75-15-0	Carbon Disulfide	UJ		UJ			
75-35-4	1, 1-Dichloroethane						
75-34-3	1, 1-Dichloroethane						
156-80-5	Trans-1, 2-Dichloroethane						
67-66-3	Chloroform						
107-06-2	1, 2-Dichloroethane						
78-83-3	2-Butanone (1)		UJ				
71-55-6	1, 1, 1-Trichloroethane						
56-23-5	Carbon Tetrachloride						
108-06-4	Vinyl Acetate (1)	UJ		UJ			
75-27-4	Bromodichloromethane						
75-87-5	1, 2-Dichloropropene						
10081-02-6	Trans-1, 3-Dichloropropene						
78-01-6	Trichloroethane						
124-48-1	Dibromochloromethane						
78-00-5	1, 1, 2-Trichloroethane						
71-43-2	Benzene						
10081-01-3	cis-1, 3-Dichloropropene						
110-75-8	2-Chloroethylvinylether (2)						
75-25-2	Bromoform						
601-78-6	4-Methyl-2-Pentanone (2)						
108-10-1	2-Hexanone (1)				UJ	UJ	UJ
127-18-4	Tetrachloroethane						
78-34-5	1, 1, 2, 2-Tetrachloroethane						
108-88-3	Toluene		610000 J				
108-90-7	Chlorobenzene					6	
100-41-4	Ethylbenzene		120000 J				
100-42-5	Xylene						
	Total Hydrocarbons		390000 J				

AR30.1025

CASE #/SITE ID: 6220 / Kam + Lombard

DATE SAMPLED:	7-16-86	7-17-86					
DATE SAMPLE RECD:	7-18-86	7-18-86	7-16-86	7-16-86	7-18-86	7-18-86	7-16-86
DATE EXTR/PREP'D:	7-25-86	7-25-86	7-24-86	7-24-86	7-25-86	7-24-86	7-25-86
DATE ANALYZED:	7-25-86	7-25-86	7-24-86	7-24-86	7-25-86	7-24-86	7-25-86
CONC/DIL FACTOR:	1	1	1	1	1	1	100
% MOISTURE:	19	91					
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:							
CAS Number	TRAFFIC REPORT #:	CE 923	CE 924	Blank	Blank	Blank	Blank
74-87-3	Chloromethane (1)					UJ	
74-83-9	Bromomethane (1)	UJ	UJ	UJ	UJ	UJ	
75-01-4	Vinyl Chloride (1)						
75-00-3	Chloroethane (1)			UJ			
75-08-2	Methylene Chloride		61 UJ	8 J		4 J	8
67-84-1	Acetone (1)	35 UJ	520 UJ	15 J	12 J	15 J	15 J
75-18-0	Carbon Disulfide			UJ			UJ
75-35-4	1, 1-Dichloroethane						
75-34-3	1, 1-Dichloroethane						
156-80-5	Trans-1, 2-Dichloroethane						
67-86-3	Chloroform		140				
107-08-2	1, 2-Dichloroethane						
78-93-3	2-Butanone (1)			3 J			3 J
71-55-6	1, 1, 1-Trichloroethane						
54-23-5	Carbon Tetrachloride						
108-05-4	Vinyl Acetate (1)			UJ			
75-27-4	Bromodichloromethane						
78-87-6	1, 2-Dichloropropane						
10081-02-6	Trans-1, 3-Dichloropropane						
78-01-6	Trichloroethane						
124-48-1	Dibromochloromethane						
78-00-5	1, 1, 2-Trichloroethane						
71-43-2	Benzene						
10081-01-8	cis-1, 3-Dichloropropane						
110-76-8	2-Chloroethylvinyl ether (1)						
75-28-2	Bromoform						
981-78-6	4-Methyl-2-Pentanone (1)				4 J	4 J	
108-10-1	2-Hexanone (1)	UJ	UJ		7 J	6 J	
127-18-4	Tetrachloroethane						
78-34-5	1, 1, 2, 2-Tetrachloroethane						
108-88-3	Toluene						
108-90-7	Chlorobenzene						
100-41-4	Ethylbenzene						
100-42-5	Styrene						
	Isopropyl Benzene						

AR301026

AR301026

DATE SAMPLED:	
DATE SAMPLE RECD:	7-16-86
DATE EXTR/PREP'D:	7-26-86
DATE ANALYZED:	7-26-86
CONC/DIL FACTOR:	100
% MOISTURE:	
UNITS:	ug/kg

AR301027

ATE SAMPLED:	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86
ATE SAMPLE RECD:	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86	7-14-86
ATE EXTRA/PROD:	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86
ATE ANALYZED:	8-11-86	8-11-86	8-12-86	8-12-86	8-12-86	8-12-86	8-12-86	8-12-86	8-12-86	8-12-86
ORG/OIL FACTOR:	30	130	2	4	600	3	1	1	1	1
MOISTURE:	32	30	10	14	21	13	15	19	91	
WTS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT..										
TRAFFIC REPORT #:	CE916	CE917	CE918	CE919	CE920	CE921	CE922	CE923	CE924	Blank
10-86-2 Phenol										
11-44-4 bis-2-Chloroethyl Ether										
16-67-8 2-Chlorophenol										
41-73-1 1,3-Dichlorobenzene										
66-46-7 1,4-Dichlorobenzene										
60-51-4 Benzyl Alcohol										
16-50-1 1,2-Dichlorobenzene										
16-48-7 2-Methylphenol										
106-36-3 bis-2-chloroethyl Ether										
66-46-5 4-Methylphenol										
121-84-7 N-Nitroso-Di-n-Propylamine										
67-72-1 Hexachloroethane										
98-96-3 Nitrobenzene	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
78-80-1 Isophenol				200 J						
88-75-5 2-Nitrophenol										
106-67-9 2,4-Dimethylphenol										
66-86-0 Benzoic Acid (2)										
11-91-1 bis-2-Chloroethyl Methane										
30-83-2 2,4-Dichlorophenol										
30-82-1 1,2,4-Trichlorobenzene										
1-20-3 Naphthalene										
68-47-8 4-Chloroaniline	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
7-80-3 Hexachlorobutadiene										
8-80-7 4-Chloro-3-Methylphenol										
1-67-6 2-Methylnaphthalene										
7-47-6 Hexachlorocyclopentadiene										
8-80-2 2,4,6-Trichlorophenol										
8-80-4 2,4,6-Trichlorophenol (3)										
1-68-7 2-Chloronaphthalene										
8-74-4 2-Nitroaniline (2)		UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
31-11-3 Dimethyl Phthalate	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
28-98-8 Azobenzene										
8-80-3 2-Nitroaniline (1)	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
1-32-9 Azobenzene										
8-80-5 2,4-Dinitrophenol (2)			UJ		UJ	UJ	UJ	UJ	UJ	
25-02-7 4-Nitrophenol (2)	UJ									
12-84-9 Dibenzylurea										
11-14-2 2,4-Dinitrotoluene		UJ		UJ						
28-20-2 2,6-Dinitrophenol										
1-66-2 Diethylphthalate										
205-72-3 4-Chlorophenyl-phenylether										
1-73-7 Fluorene										
20-01-8 4-Nitroaniline (2)	R	R	R	R	R	R	R	R	R	R
14-82-1 4,6-Dinitro-2-Methylphenol (1)										
1-80-8 N-Nitrosodiphenylamine (1)										
21-86-3 4-Bromophenyl-phenylether										
18-74-1 Hexachlorobenzene										
7-68-5 Pentachlorophenol (2)		12000 J								
1-01-8 Phenanthrene	2600 J									
10-12-7 Anthracene										
1-34-2 Di-n-Butylphthalate				180 UJ		300 UJ	240 UJ	760 UJ	9600 UJ	170 -
28-44-0 Fluoranthene	6600 J									
18-00-0 Pyrene	7600 J									
1-88-7 Butylbenzylphthalate	29000 J	19000 J		760 J	94000				17000	
1-84-1 3,5-Dichlorobenzene (1)	R									
1-84-3 Benzylanthracene	3600 J									
17-81-7 bis-2-Ethylhexyl Phthalate	2100 UJ	30000 UJ		3700 UJ			34 UJ		4900 UJ	72 J
8-01-9 Chrysene	4500 J	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ	UJ
7-84-0 Di-n-Octyl Phthalate										
8-80-2 Benzyl Fluoranthene	4200 J									
17-88-6 Benzyl Fluoranthene	3500 J	UJ		UJ						
1-33-8 Benzyl Pyrene	3800 J									
3-38-6 Indenyl, 2,3-difluorene	2500 J									
70-2 Dibenzyl Anthracene										
1-34-2 Benzyl, n-Propyl	2700 J									

AR301028

ATE SAMPLED:		7-16-86		7-16-86	
ATE SAMPLE RECD:		7-23-86		7-23-86	
ATE EXTRA/REP'D:		7-23-86		7-23-86	
ATE ANALYZED:		8-11-86		8-12-86	
INC/DIL FACTOR:		1		1	
MOISTURE:					
AYS:		u41du		u41du	
SAMPLE DESCRIPT.:					
TRAFFIC REPORT #:		A4nd		A4nd	
108-86-2	Phenol				
111-86-4	bis-2-Chloroethylether				
15-87-8	2-Chlorophenol				
181-72-1	1,3-Dichlorobenzene				
108-86-7	1,4-Dichlorobenzene				
100-81-6	Benzyl Alcohol				
15-80-1	1,2-Dichlorobenzene				
15-88-7	2-Methylphenol				
18638-32-9	bis(2-chloroethoxy)ether				
106-86-5	4-Methylphenol				
121-84-7	N-Nitroso-Di-n-Propylamine				
87-72-1	Hexachloroethane				
98-95-3	Nitrobenzene	UJ	UJ		
78-88-1	Isophenol				
88-75-6	2-Nitrophenol				
108-87-8	2,4-Dimethylphenol				
96-86-0	Benzoic Acid (2)				
111-91-1	bis-2-ChloroethoxyMethane				
20-83-2	2,4-Dichlorophenol				
20-82-1	1,2,4-Trichlorobenzene				
11-20-3	Naphthalene				
108-47-8	4-Chloroaniline	UJ	UJ		
17-88-3	Hexachlorobutadiene				
8-80-7	4-Chloro-3-Methylphenol				
11-87-6	2-Methylnaphthalene				
7-87-4	Hexachlorocyclopentadiene				
8-88-2	2,4,6-Trichlorophenol				
8-88-4	2,4,5-Trichlorophenol (2)				
88-7	2-Chloronaphthalene				
8-8	2-Nitroaniline (2)	UJ	UJ		
11-3	Dimethyl Phthalate	UJ	UJ		
10-88-8	Acenaphthylene				
9-88-2	3-Nitroaniline (2)	UJ	UJ		
1-23-9	Acenaphthene				
1-28-8	2,4-Dichlorophenol (2)			UJ	
20-82-7	4-Nitrophenol (2)				
22-84-9	Dibenzofuran				
21-14-2	2,4-Dinitroanisole				
28-20-2	2,6-Dinitroanisole				
4-86-2	Diphenylmethane				
108-72-3	4-Chlorophenyl-phenylether				
8-73-7	Fluorene				
20-81-8	4-Nitroaniline (2)	R	R		
24-82-1	4,6-Dinitro-2-Methylphenol (2)				
5-30-6	N-Nitrosodiphenylamine (1)				
21-85-3	4-Bromophenyl-phenylether				
18-74-1	Hexachlorobenzene				
7-86-5	Pentachlorophenol (2)				
5-81-8	Phenanthrene				
20-12-7	Anthracene				
8-74-2	Di-n-Butylphthalate				
26-44-0	Fluoranthene				
29-00-0	Pyrene				
5-88-7	Butylbenzylphthalate				
1-84-1	3,3-Dichlorobenzidine (2)	R			
8-86-3	Benzofluoranthene				
17-81-7	bis(2-Ethylhexyl)phthalate				
18-81-8	Chrysene	UJ	UJ		
17-84-0	Di-n-Octyl Phthalate				
26-88-2	Benzofluoranthene				
57-88-8	Benzofluoranthene			UJ	
5-35-8	Benzofluoranthene				
13-39-5	Indeno(1,2,3-cd)Pyrene				
7-3	Debenzo. h. Anthracene				
	Benzofluoranthene				

cannot be separated from diphenylamine

AR301029

CASE #/SITE ID: 6220 / Kane & Lombard

PEST
Pg 1-3

DATE SAMPLED:	7-14-86	7-14-86	7-14-86	7-14-86	7-16-86	7-16-86	7-16-86
DATE SAMPLE RECD:	7-16-86	7-16-86	7-16-86	7-16-86	7-18-86	7-18-86	7-18-86
DATE EXTR/PREP'D:	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86	7-23-86
DATE ANALYZED:	7-29-86	7-29-86	7-29-86	7-29-86	7-29-86	7-29-86	7-29-86
CONC/DIL FACTOR:	20	20	1	10	1	1	1
% MOISTURE:	32	30	10	14	21	18	15
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SAMPLE DESCRIPT.:							
CAS Number	TRAFFIC REPORT #:	CE 916	CE 917	CE 918	CE 919	CE 920	CE 921
019-84-6	Alpha-BHC						
019-85-7	Beta-BHC						
019-86-8	Delta-BHC						
008-89-9	Gamma-BHC (Lindane)						
76-44-8	Heptachlor						
309-00-2	Aldrin						
1024-57-3	Heptachlor Epoxide						
059-38-8	Endosulfan I						
80-57-1	Dieldrin						
72-55-9	4,4'-DDE						
72-20-8	Endrin						
33213-85-9	Endosulfan II						
72-84-8	4,4'-DDD						
1031-07-8	Endosulfan Sulfate						
50-29-3	4,4'-DDT						
72-43-5	Methoxychlor						
63494-70-5	Endrin Ketone						
57-74-9	Chlordane						
0001-35-2	Toxaphene						
12674-11-2	Aroclor-1016						
11104-28-2	Aroclor-1221						
11141-16-6	Aroclor-1232						
53489-21-9	Aroclor-1242						
12672-29-6	Aroclor-1248				1700	677 N	
11087-60-1	Aroclor-1254	7300					
11086-82-5	Aroclor-1260						

AR301030

DATE SAMPLED:	7-16-86	7-17-86				
DATE SAMPLE RECD:	7-18-86	7-18-86	7-16-86	7-16-86	7-16-86	
DATE EXTR/PREP'D:	7-22-86	7-22-86	7-22-86	7-23-86	7-23-86	
DATE ANALYZED:	7-29-86	7-29-86	7-28-86	7-29-86	7-29-86	
CONC/DIL FACTOR:	1	20	1	1	1	
% MOISTURE:	19	91				
UNITS:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	
CAS Number	SAMPLE DESCRIPT.: TRAFFIC REPORT #:					
319-84-6	Alpha-BHC	CE 923	CE 924	blank	blank	blank
319-85-7	Beta-BHC					
319-86-8	Delta-BHC					
58-89-9	Gamma-BHC (Lindane)					
76-44-8	Heptachlor					
309-00-2	Aldrin					
1024-57-3	Heptachlor Epoxide					
959-98-8	Endosulfan I					
50-57-1	Dieldrin					
72-55-9	4,4'-DDE					
72-20-8	Endrin					
33213-85-9	Endosulfan II					
72-84-8	4,4'-DDD					
1031-07-8	Endosulfan Sulfate					
50-29-3	4,4'-DDT					
72-43-6	Methoxychlor					
53494-70-5	Endrin Ketone					
57-74-9	Chlordane					
8001-35-2	Toxaphene					
12674-11-2	Aroclor-1016					
11104-28-2	Aroclor-1221					
11141-18-5	Aroclor-1232					
53489-21-9	Aroclor-1242					
12672-29-6	Aroclor-1248					
11087-68-1	Aroclor-1254					
11086-82-5	Aroclor-1260					

AR301031

DETECTION LIMITS: Must be multiplied by the respective conc/dil factor and, for soils, divided by the fraction solids (for dry weight correction).

CAS Number		WATER ug/L	SOIL ug/kg
74-87-3	Chloromethane	10	10
74-89-9	Bromomethane	10	10
75-35-4	Vinyl Chloride	10	10
75-85-3	Chloroethane	10	10
75-29-2	Methylene Chloride	5	5
67-64-1	Azene	10	10
75-18-0	Carbon Disulfide	5	5
75-35-4	1, 1-Dichloroethane	5	5
75-34-3	1, 1-Dichloroethane	5	5
155-80-5	Trans-1, 2-Dichloroethane	5	5
67-66-3	Chloroform	5	5
107-06-2	1, 2-Dichloroethane	5	5
75-35-4	2-Buprene	10	10
71-55-6	1, 1, 1-Trichloroethane	5	5
84-22-9	Carbon Tetrachloride	5	5
105-05-4	Vinyl Azene	10	10
75-27-4	Bromodichloromethane	5	5
75-87-5	1, 2-Dichloropropane	5	5
10551-82-8	Trans-1, 2-Dichloropropane	5	5
75-01-6	Trichloroethane	5	5
124-48-1	Dibromochloromethane	5	5
75-05-5	1, 1, 2-Trichloroethane	5	5
71-43-2	Benzene	5	5
10081-01-5	as-1, 3-Dichloropropane	5	5
110-75-8	2-Chloroethylvinyl ether	10	10
75-25-2	Bromoform	5	5
501-75-8	4-Methyl-2-Pentanone	10	10
105-10-1	3-Hexanone	10	10
127-18-4	Tetrachloroethane	5	5
75-24-5	1, 1, 2, 2-Tetrachloroethane	5	5
105-88-3	Toluene	5	5
105-90-7	Chlorobenzene	5	5
100-41-4	Ethylbenzene	5	5
100-42-5	Styrene	5	5
	Total Xylene	5	5

CAS Number		WATER ug/L	SOIL ug/kg
519-84-6	Alpha-BHC	0.05	8.0
519-85-7	Beta-BHC	0.05	8.0
519-86-8	Delta-BHC	0.05	8.0
58-89-9	Gamma-BHC (Lindane)	0.05	8.0
75-44-8	Heptachlor	0.05	8.0
309-00-2	Aldrin	0.05	8.0
1024-57-3	Heptachlor Epoxide	0.05	8.0
959-98-3	Endosulfan I	0.05	8.0
50-57-1	Dieldrin	0.10	16
72-56-9	4, 4'-DDE	0.10	16
72-20-8	Endrin	0.10	16
33213-65-9	Endosulfan S	0.10	16
72-54-8	4, 4'-DDD	0.10	16
1031-07-8	Endosulfan Sulfate	0.10	16
50-29-3	4, 4'-DDT	0.10	16
72-43-5	Methoxychlor	0.5	80
53494-70-5	Endrin Ketone	0.1	16
57-74-9	Chlordane	0.5	80
9001-35-2	Toxaphene	1.0	160
12674-11-2	Aroclor-1018	0.5	80
11104-28-2	Aroclor-1231	0.5	80
11141-18-8	Aroclor-1232	0.5	80
53469-21-9	Aroclor-1242	0.5	80
12672-28-4	Aroclor-1248	0.5	80
11087-66-1	Aroclor-1254	1.0	160
11086-62-5	Aroclor-1260	1.0	160

CAS Number		WATER ug/L	SOIL ug/kg
105-65-2	Phenol	10	330
111-44-4	Bis-2-Chloroethyl Ether	10	330
95-57-8	2-Chlorophenol	10	330
541-73-1	1, 3-Dichlorobenzene	10	330
105-46-7	1, 4-Dichlorobenzene	10	330
100-91-6	Benzyl Alcohol	10	330
95-50-1	1, 2-Dichlorobenzene	10	330
95-48-7	2-Methylphenol	10	330
30938-32-9	Bis-2-chloroisopropyl Ether	10	330
105-44-5	4-Methylphenol	10	330
621-84-7	N-Nitroso-Di-n-Propylamine	10	330
67-73-1	Hexachloroethane	10	330
98-96-3	Nitrobenzene	10	330
78-59-1	Isophenol	10	330
88-75-5	2-Nitrophenol	10	330
105-67-9	2, 4-Dimethylphenol	10	330
65-85-0	Benzoic Acid (1)	50	1600
111-91-1	Bis-2-Chloroisobutyl Methane	10	330
120-83-2	2, 4-Dichlorophenol	10	330
120-82-1	1, 2, 4-Trichlorobenzene	10	330
91-20-3	Naphthalene	10	330
105-47-8	4-Chlorobenzene	10	330
67-48-3	Hexachlorobutadiene	10	330
69-50-7	4-Chloro-3-Methylphenol	10	330
91-57-4	2-Methylnaphthalene	10	330
77-47-4	Hexachlorocyclopentadiene	10	330
88-04-2	2, 4, 6-Trichlorophenol	10	330
88-04-4	2, 4, 6-Trichlorophenol (1)	50	1600
91-58-7	2-Chloronaphthalene	10	330
88-74-4	2-Nitroaniline (1)	50	1600
121-11-3	Dimethyl Phthalate	10	330
105-90-8	Acenaphthylene	10	330
99-08-2	3-Nitroaniline (1)	50	1600
53-32-6	Acenaphthene	10	330
91-28-5	2, 6-Dinitrophenol (1)	50	1600
100-02-7	4-Nitrophenol (1)	50	1600
122-84-9	Dibenzofuran	10	330
121-14-2	2, 4-Dinitrotoluene	10	330
105-20-2	1, 6-Dinitrotoluene	10	330
84-66-2	Dinitrophenol	10	330
7005-72-3	4-Chlorophenyl-phenyl ether	10	330
84-73-7	Fluorene	10	330
100-01-8	4-Nitroaniline (1)	50	1600
534-52-1	4, 6-Dinitro-2-Methylphenol (1)	50	1600
85-20-6	N-Nitrosodiphenylamine (1)	10	330
101-55-3	4-Bromophenyl-phenyl ether	10	330
118-74-1	Hexachlorobenzene	10	330
97-84-6	Para-chlorophenol (1)	50	1600
85-01-8	Phenanthrene	10	330
120-12-7	Anthracene	10	330
84-74-2	Di-n-Butylphthalate	10	330
205-44-0	Fluoranthene	10	330
129-00-0	Pyrene	10	330
85-46-7	Benzobenzophenone	10	330
91-54-1	3, 5-Dichlorobenzene (1)	20	660
84-56-3	Benzobenzofuran	10	330
117-81-7	Bis-2-Ethylhexyl Phthalate	10	330
218-01-9	Chrysene	10	330
117-84-0	Di-n-Octyl Phthalate	10	330
205-90-3	Benzobenzofluorene	10	330
207-08-9	Benzobenzofluorene	10	330
50-32-5	Benzofluorene	10	330
183-38-5	Indene 1, 2, 3-triPyrene	10	330
53-70-3	Chrysene, h/Anthracene	10	330
181-24-2	Benzofluorene, h/Pyrene	10	330

(1) Cannot be separated from diphenylamine

AR301032

Date Review Completed 28 October 86
 Case No. 6220 SAS No. _____
 Site Name Kane & Lombard
 Sample Nos. CE916-CE924

Contract Lab NUS
 Contract No. 68-01-7022
 Lab DPO (III) Pat Krantz
 Reviewer Alanne S. Thelry
 from Region TIL Phone 215-524-1160
 FTS WESTON

MATRIX	CONCENTRATION			MATRIX RELATED COMMENTS
	low	med	high	
soil/solid	8	1		VOA
↓	7	2		BNA
	7	2		PEST

VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--BFB	✓			
Initial Calibration		✓		summary of non-CCC and non-SPCC
Continuing Calibration		✓		exceeding criteria in Figure 1A (attached)
Surrogate Recovery	✓			
Matrix Spikes	✓			toluene, 0% 0%: appears to be from non-homogeneity
Reagent Blanks		✓		methylene chloride, acetone, 2-butanone >CRDL 25X
Holding times			✓	MS/MSD both L+M post 10 days VTSR

SEMI-VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--DFTPP	✓			
Initial Calibration		✓		summary of non-CCC and non-SPCC
Continuing Calibration		✓		exceeding criteria in Figure 1B (attached)
Surrogate Recovery	✓			
Matrix Spikes				
Reagent Blanks	✓			
Holding times	✓			

PESTICIDES	OK	FYI	ACTION	COMMENTS
Instrument Performance				see below 1,2,3
Initial Calibration		✓	✓	
Continuing Calibration		✓	✓	
Surrogate Recovery	✓			
Matrix Spikes	✓			
Reagent Blanks	✓			
Holding times	✓			

OVERALL CASE	OK	FYI	ACTION	COMMENTS
Compound Identification	✓			
Data Completeness	✓			

REVIEWER'S COMMENTS:

- The retention time shift for dibutylchlorodate (DBC) was greater than the acceptable limit for capillary analysis during standardization of PCB-1248 and PCB-1254, at 16:01 and 16:32 respectively, on 7/30/86. The PCB patterns did fall within their retention time windows. Since identification of PCB's is based primarily on pattern recognition, no action was taken.
- The calibration factors for heptachlor and methoxychlor were greater than the acceptable limit for confirmation analysis at 23:20 on 7/30/86. Since neither of these pesticides was identified in any sample, no action was taken.
- The percent difference of the continuing calibration factor for Endrin was 18% for analysis on 7/29/86 at 22:32. No Endrin was detected in any of the samples, therefore no action was taken.

AR301033

LIBRATION CRITERIA
SE: 6220
IB: NUS

FIGURE 1A

(ORGANIC WITH
VALIDATION SUMMARY)
page 2 of 3

FINN 3200 FINN 4000

EXCEPTION CRITERIA:		7-23-86 INITIAL	7-24-86 8:49	7-24-86 INITIAL	7-24-86 17:27	7-25-86 7:53	7-29-86 12:30	7-25-86 19:02	7-26-86 11:21	MED LEVEL	
UCC #	Initial: >30% RSD Continuing: >25% RSD Min. Ref: 0.25									7-25-86 INITIAL	
87-3 *	Chloromethane										
83-9	Bromomethane		38	34		103	26				
01-4 *	Vinyl Chloride						28				
00-3	Chloroethane		36								
08-2	Methylene Chloride	37	37								
84-1	Acetone	50	40	37		27	69	28		65	
15-0	Carbon Disulfide		46				29				
35-4 *	1, 1-Dichloroethane									60	
34-3 **	1, 1-Dichloroethane										
6-80-5	Trans-1, 2-Dichloroethane										
66-3 *	Chloroform										
17-06-2	1, 2-Dichloroethane										
93-3	2-Butanone										
55-6	1, 1, 1-Trichloroethane										
23-5	Carbon Tetrachloride										
8-06-4	Vinyl Acetate		28								
27-4	Bromodichloromethane										
87-6 *	1, 2-Dichloropropene										
061-02-8	Trans-1, 3-Dichloropropene										
01-8	Trichloroethane										
4-48-1	Dibromochloromethane										
00-5	1, 1, 2-Trichloroethane										
43-2	Benzene										
061-01-5	cis-1, 3-Dichloropropene										
0-75-8	2-Chloroethylvinylether										
25-2 **	Bromoform										
11-78-6	4-Methyl-2-Pentanone										
18-10-1	2-Hexanone				28						
27-18-4	Tetrachloroethane			37							
34-5 **	1, 1, 2, 3-Tetrachloroethane										
18-88-3 *	Toluene										
18-90-7 **	Chlorobenzene										
10-41-4 *	Ethylbenzene										
10-42-5	Styrene										
	Total Styrenes										
		6220724 LI	6220724 LI	6220724 LI	6220724 LI	6220725 L	6220724 L	6220725 M	6220726 M		
		CE 916	CE 916	CE 919	CE 919	CE 920	CE 931 MS	CE 917	CE 917 MS		
		CE 918	CE 918	CE 920	CE 920	CE 920	CE 931 MS	CE 917	CE 917 MS		

receptor
affected:

AR301034

AR301034

CASE: 6220
LAB: NYS

FINN 4500

EXCEPTION CRITERIA:		FINN 4500			
CCC #	Initial Calc. 730% RSD	7-17-86	8-11-86	8-12-86	8-12-86
SPCC #	Continuing Proficiency RPD 0.05	INITIAL	11/43/12:39	3/30/4:27	15/17/6:08
108-86-2 *	Phenol				
111-46-4	Di-2-Chloroethyl Ether				
95-87-9	2-Chlorophenol				
541-73-1	1, 3-Dichlorobenzene				
108-46-7 *	1, 4-Dichlorobenzene				
100-91-8	Benzyl Alcohol				
95-80-1	1, 2-Dichlorobenzene				
95-48-7	2-Methylphenol				
39838-32-9	Di-2-chloroethoxyethyl Ether				
108-64-5	4-Methylphenol				
621-84-7	N-Nitroso-Di-n-Propylamine				
67-72-1	Hexachloroethane				
98-95-3	Nitrobenzene	146	142	145	
78-59-1	Isophrene				
88-75-5 *	2-Nitrophenol				
108-87-9	2, 4-Dimethylphenol				
85-86-0	Succinic Acid (2)				
111-91-1	Di-2-Chloroethyl Methane				
120-83-2 *	2, 4-Dichlorophenol				
120-82-1	1, 2, 4-Trichlorobenzene				
91-20-3	Naphthalene				
108-47-8	4-Chloroaniline	121	36	35	33
87-68-3 *	Hexachlorobutadiene				
89-80-7 *	4-Chloro-3-Methylphenol				
91-57-6	3-Methylnaphthalene				
77-47-4 *	Hexachlorocyclopentadiene				
88-06-2 *	2, 4, 6-Trichlorophenol				
88-86-4	2, 4, 6-Trichlorophenol (2)				
91-58-7	2-Chloronaphthalene				
88-74-4	2-Nitroaniline (2)			52	56
131-11-8	Dimethyl Phthalate	43	35	40	30
208-96-8	Acenaphthylene				
99-08-2	3-Nitroaniline (2)		768	696	641
3-32-9 *	Acenaphthene				
1-28-6 *	2, 4-Dichlorophenol (2)				30
100-02-7 *	6-Nitrophenol (2)		35		
132-84-9	Dibenzylurea				
121-14-2	2, 4-Dinitrotoluene			27	
508-20-7	2, 6-Dinitrofluorene				
84-68-2	Diethylphthalate				
7005-73-3	4-Chlorophenyl-phenylether				
95-73-7	Fluorene				
100-01-8	4-Nitroaniline (2)	57	135	363	120
534-52-1	4, 6-Dinitro-2-Methylphenol (2)				
86-30-8 *	N-Nitrosodiphenylamine (1)				
101-86-3	4-Bromophenyl-phenylether				
118-74-1	Hexachlorobenzene				
87-86-5 *	Pentachlorophenol (1)				
85-01-8	Phenanthrene				
120-12-7	Anthracene				
84-74-2	Di-n-Butylphthalate				
208-44-0 *	Fluoranthene				
129-00-0	Pyrene				
86-86-7	Butylbenzylphthalate				
91-84-1	3, 3'-Dichlorobenzidine (2)	43	45		
56-83-3	Benzal Anthracene				
117-81-7	Di-2-Ethylhexyl Phthalate				
218-01-9	Chrysene	40	35	38	
117-94-0 *	Di-n-Octyl Phthalate				
208-96-2	Benzofluoranthene				
207-08-9	Benzofluoranthene				
50-32-8 *	Benzofluoranthene				
183-28-6	Indeno(1, 2, 3-cd)Pyrene				
53-70-3	Dibenz(a,h)Anthracene				
191-24-2	Benzofluoranthene				

(1) Cannot be separated from diphenylamine

affected
Samples:

62200722L
62200723L
CE916

W200723M
CE417
MS
MSD
CE419

CE418
CE420-
-CE424
CE421MS
MS

AR301035