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QUALITY CONTROL LAB-DATA

JOHNS-MANVILLE, WAUKEGAN, ILL SITE.

KUMAR MALHOTRA & ASSOCIATES, INC.

ENGINEERS • CONSULTANTS • PLANNERS

Grand Rapids, Michigan/Monroe, Wisconsin

PARAMETER	WATER (REFERENCE) METHOD	SOIL (REFERENCE) METHOD
Asbestos	(2) P & CAM 239	(3) ----
Aluminum	(1) 202.1	(1) 202.1
Chromium	(1) 218.1	(1) 218.1
Barium	(1) 208.1	(1) 208.1
Beryllium	(1) 210.1	(1) 210.1
Cobalt	(1) 219.1	(1) 219.1
Copper	(1) 220.1	(1) 220.1
Iron	(1) 236.1	(1) 236.1
Nickel	(1) 249.1	(1) 249.1
Manganese	(1) 243.1	(1) 243.1
Zinc	(1) 289.1	(1) 289.1
Boron	(1) 212.3	(1) 212.3
Vanadium	(1) 286.1	(1) 286.1
Silver	(1) 272.1	(1) 272.1
Arsenic	(1) 206.3	(1) 206.3
Antimony	(1) 204.1	(1) 204.1
Selenium	(1) 270.3	(1) 270.3
Thallium	(1) 279.1	(1) 279.1
Mercury	(1) 245.1	(1) 245.1
Tin	(1) 282.1	(1) 282.1
Cadmium	(1) 213.1	(1) 213.1
Lead	(1) 239.1	(1) 239.1
Ammonia	(1) 350.3	(1) 350.3
Cyanide	(1) 335.3	(1) 335.3
Sulfide	(1) 376.2	(1) 376.2
Acid Extractables	(4) 604	(5) 8040
Base/Neutrals	(4) 625	(5) 8090,8100,8110,8120
Volatiles	(4) 601, 602	(5) 8010,8020,8030
Pesticides	(4) 608	(5) 8080
PCB	(4) 608	(5) 8080
Dioxins	(4) 613	(5) 8130
Thiram	(4) 608	(5) 8080

References:

(1) Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1979.

(2) NIOSH Manual of Analytical Methods, Second edition, Volume 1, U.S. Dept. of Health, Education and Welfare.

(3) Interim Method for the Determination of Asbestos in Bulk Insulation samples, EPA 600/M4-82-020, December 1982.

(4) Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA 600/4-82-057, July 1982.

(5) Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, SW 846.

SET 1 - SOIL DATA

NOTE :- SAMPLE I.D # 9-503 IS SYNONYMOUS TO 4090-503

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-503	Al	96.00	<0.10	1,380	1,290	
9-504	Al	101.40	<0.10	3,760	3,260	
9-512	Al	96.00	<0.10	3,544	3,484	
9-505	Sb	96.75	<0.002	<0.3	<0.3	101.44
9-506	Sb	96.75	<0.002	<0.3	<0.3	118.93
9-522	Sb	96.75	<0.002	<0.3	<0.3	94.18
9-505	As	109.57	<0.002	3.220	3.199	85.05
9-506	As	109.57	<0.002	0.7982	0.4433	97.90
9-503	Ba	105.40	<0.10	262.0	182.0	
9-504	Ba	112.20	<0.10	484.0	658.0	88.50
9-512	Ba	105.40	<0.10	142.0	135.4	79.70
9-503	Be	97.30	<0.01	19.4	15.2	55.93
9-504	Be	92.57	<0.01	<0.20	<0.20	49.33
9-512	Be	97.30	<0.01	< .20	<0.20	90.00
9-503	Cd	104.0	<0.01	1.0	1.0	70.55
9-504	Cd	90.90	<0.01	<0.20	<0.20	74.20
9-512	Cd	104.0	<0.01	1.0	0.80	73.50
9-503	Cr	90.0	<0.02	9.2	8.8	81.00
9-504	Cr	95.65	<0.02	80.0	82.0	72.00
9-512	Cr	90.0	<0.02	5.2	5.6	

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-503	Co	93.30	< 0.01	19.4	15.2	128.80
9-504	Co	94.50	< 0.01	6.76	6.98	71.32
9-512	Co	93.30	< 0.01	20.4	24.2	86.05
9-503	Cu	97.00	< 0.01	62.4	79.0	82.75
9-504	Cu	94.25	< 0.01	109.8	151.0	94.00
9-512	Cu	97.00	< 0.01	57.2	59.8	100.75
9-503	Fe	96.00	< 0.02	3,440	3,240	-----
9-504	Fe	94.33	< 0.02	4,580	5,080	-----
9-512	Fe	96.00	< 0.02	4,980	3,840	-----
9-503	Pb	97.60	< 0.05	598	658	-----
9-504	Pb	102.40	< 0.05	1,068	1,152	120.00
9-512	Pb	97.60	< 0.05	326	330	112.00
9-503	Mn	97.67	< 0.01	134.0	131.6	127.7
9-504	Mn	95.67	< 0.01	150.2	155.6	88.17
9-512	Mn	97.67	< 0.01	98.6	98.0	
9-503	Hg	95.71	<0.0005	0.018	0.032	113.20
9-517	Hg	95.71	< 0.0005	0.058	0.073	85.00
9-522	Hg	103.60	<0.0005	0.071	0.068	94.70
9-503	Ni	90.50	< 0.02	26.4	24.8	74.0
9-504	Ni	100.00	< 0.02	198.0	200.0	77.50
9-512	Ni	90.50	< 0.02	30.4	27.4	63.80

Sample I.D.	Parameter	Standard Recovery %	Blank	A	B	Spike Recovery %
9-503	Tl	99.80	<0.02	<0.4	<0.4	99.6
9-504	Tl	99.00	<0.02	<0.4	<0.4	81.20
9-512	Tl*	99.80	<0.02	<0.4	<0.4	46.80
9-505	Se	104.71	<0.001	0.095	0.080	79.37
9-508	Se	104.71	<0.001	0.040	<0.04	130.08
9-503	Sn	127.8	<1.0	<1.0	<1.0	131.00
9-504	Sn	127.8	<1.0	<1.0	<1.0	52.10
9-512	Sn	127.8	<1.0	<1.0	<1.0	131.00
9-503	V	136.90	<0.10	19.4	15.2	128.80
9-504	V	119.90	<0.10	14.2	14.2	99.60
9-512	V	136.90	<0.10	20.4	24.2	86.00
9-503	Zn	108.00	<0.01	368	348	105.00
9-504	Zn	99.00	<0.01	1,480	1,602	-----
9-512	Zn	108.00	<0.01	296	320	-----
9-503	Ag	88.00	<0.01	1.74	1.83	106.60
9-504	Ag	88.00	<0.01	2.82	2.73	98.78
9-512	Ag	88.00	<0.01	1.35	1.47	107.67

* This sample was digested and analyzed twice as duplicates and spikes.
Both spike recoveries were approximately 47%.

Sample I.D.	Parameter	Method Standard Recovery	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-698	Al	101.40	<0.10	5,220	5,800	------
9-698	Sb	97.00	<0.002	<0.3	<0.3	110.98
9-698	As	102.65	<0.002	2.20	4.69	114.52
9-698	Ba	112.20	<0.10	604.0	762.0	------
9-698	Be	92.57	<0.01	<0.20	< 0.20	59.50
9-698	Cd	90.90	<0.01	0.32	< 0.20	72.25
9-698	Cr	95.65	<0.02	24.28	21.10	116.98
9-698	Co	94.50	<0.01	5.14	2.90	77.78
9-698	Cu	94.25	<0.01	752.4	999.8	------
9-698	Fe	94.33	<0.02	11,840	13,900	-----
9-968	Pb	102.40	<0.05	4,700	4,620	------
9-968	Mn	95.67	<0.01	446	450	86.67
9-700	Hg	100.60	<0.0005	0.0373	0.0378	103.06
9-698	Ni	100.00	<0.02	63.4	60.2	118.50
9-968	Tl	99.00	<0.02	<0.4	< 0.4	81.60
9-968	Se	87.71	<0.001	0.085	0.115	78.58
9-968	Sn	127.80	<1.0	<1.0	< 1.0	61.50
9-968	V	119.90	<0.10	21.2	13.8	107.95
9-698	Zn	99.00	<0.01	1,840	1,856	-----
9-968	Ag	92.20	<0.01	2.40	2.16	102.07

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-705	Boron	100	0	2.2	2.4	19
9-46	Ammonia	109	<0.1	0.976	1.01	99
9-600	Ammonia	96	<0.1	0.453	0.419	97
9-515	Ammonia	87	<0.1	<10.0	<10.0	90
9-505	Cyanide	100	<0.01	0.29	0.29	77
9-503	Cyanide	100	<0.01	1.50	1.50	96
9-501	Cyanide	100	<0.01	2.7	3.0	78
9-516	Boron	100	<0.02	18	15	47
9-508 --	Boron *	100	<0.02	28	11	39
9-704	Boron	100	<0.02	1.7	1.9	31
9-502	Sulfide **	100	<0.1	<0.5	<0.5	20
9-508	Sulfide	100	<0.1	<0.5	<0.5	100
9-512	Sulfide	100	<0.1	<0.5	<0.5	100
9-504	Sulfide	100		<0.5	<0.5	86

* This sample was tested three times for boron (duplicates and spikes also). All duplicates had a level of precision at ± 83% to ± 94%. The results reported are from one test run and are typical of the other two sets of data.

** This sample was tested for sulfides twice (duplicate and spikes also) with both spikes recoveries at 20.0%.

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-705	Cyanide	100	0	4.4	2.0	98
9-704	Boron	100	0	1.7	1.9	32
9-47	Ammonia	102	< 0.1	1.03	1.03	96
9-998	Sulfide	100	< 0.1	< 0.5	<0.5	60
9-999	Sulfide	100	< 0.1	< 0.5	<0.5	100
9-700	Sulfide	100	< 0.1	< 0.5	<0.5	140

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-510	Chloroethane		<0.2	<0.2	<0.2	105
"	Methylene chloride		<0.4	<0.4	<0.4	68
"	Chloroform		<0.4	<0.4	<0.4	98
"	1,1,1-Trichloroethane		<0.2	<0.2	<0.2	95
"	Trichloroethene		<0.2	<0.2	<0.2	96
"	Tetrachloroethene		<0.2	<0.2	<0.2	95
"	Chlorobenzene		<0.02	<0.02	<0.02	85
"	1,2-Dichlorobenzene		<0.04	<0.04	<0.04	50
	Toluene		<0.02	0.62	2.7	100
	Benzene		<0.02	0.06	0.19	94
	Ethylbenzene		<0.02	1.4	8.2	105

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-520	Chloroethane		< 0.2	< 0.2	< 0.2	52
"	Methylene chloride		< 0.4	< 0.4	< 0.4	40
"	Chloroform		< 0.4	< 0.4	< 0.4	60
"	1,1,1-Trichloroethane		< 0.2	< 0.2	< 0.2	58
"	Trichloroethene		< 0.2	< 0.2	< 0.2	66
"	Tetrachloroethene		< 0.2	< 0.2	< 0.2	82
"	Chloroebenzene		< 0.02	< 0.02	< 0.02	79
"	1,2-Dichlorobenzene		< 0.04	< 0.04	< 0.04	118
"	Toluene		< 0.02	< 0.02	< 0.02	69
"	Benzene		< 0.02	< 0.02	< 0.02	63
"	Ethylbenzene		< 0.02	< 0.02	< 0.02	84

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-704	Chloroform		<0.4	<0.4	<0.4	101
"	Chloroethane		<0.2	<0.2	<0.2	105
"	Methylene chloride		<0.4	<0.4	<0.4	90
"	1,1,1-Trichlorothene		<0.2	<0.2	<0.2	98
"	Trichloroethene		<0.2	<0.2	<0.2	100
"	Chlorobenzene		<0.02	<0.02	<0.02	92
"	1,2-Dichlorobenzene		<0.04	<0.04	<0.04	68
"	Toluene		<0.02	<0.02	<0.02	97
"	Benzene		<0.02	<0.02	<0.02	100
"	Ethylbenzene		<0.02	<0.02	<0.02	92

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-514	PCB		<0.1	<0.1	<0.1	120
"	Aldrin		<0.004	<0.004	<0.004	64
"	p,p'-DDE		<0.004	<0.004	<0.004	80
"	p,p'-DDT		<0.012	<0.012	<0.012	110
"	Endosulfan I		<0.014	<0.014	<0.014	95
"	Thiram		<0.028	<0.028	<0.028	47
"	2-Chlorophenol		<0.02	<0.02	<0.02	82
"	2-Nitrophenol		<0.02	<0.02	<0.02	98
"	2,4-Dinitrophenol		<0.02	<0.02	<0.02	82

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-520	PCB		<0.1	<0.1	<0.1	83
"	Aldrin		<0.004	<0.004	<0.004	75
"	p,p'DDE		<0.004	<0.004	<0.004	39
"	p,p'-DDT		<0.012	<0.012	<0.012	78
"	Endosulfan I		<0.014	<0.014	<0.014	56
"	Thiram		<0.028	<0.018	<0.028	56
"	2-Chlorophenol		<0.02	<0.02	<0.02	74
"	2-Nitrophenol		<0.02	<0.02	<0.02	89
"	2,4-Dinitrophenol		<0.02	<0.02	<0.02	79
9-523	Thriam		---	---	---	44
9-505	Thriam		---	---	---	57
9-705	Thriam		---	---	---	59

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-514	2,4-Dichlorophenol		<0.01	<0.01	<0.01	85
"	2,4,6-Trichlorophenol		<0.03	<0.03	<0.03	106
"	4-Chloro-3-methylphenol		<0.02	<0.02	<0.02	77
"	Pentachlorophenol		<0.3	<0.3	<0.3	107
"	Bis(2-chloroethy)ether		<0.028	<0.028	<0.028	83
"	1,4-Dichlorobenzene		<0.028	<0.028	<0.028	84
"	Hexachloroethane		<0.028	<0.028	<0.028	86
"	Nitrobenzene		<0.028	<0.028	<0.028	83
"	2-Chloronaphthylene		<0.028	<0.028	<0.028	83
"	Naphthalene		<0.028	0.26	0.19	54
"	2,4-Dinitrotoluene		<0.14	<0.14	<0.14	82
"	Phenanthracene		<0.028	<0.028	<0.028	59
"	Di-n-butylphthalate		<0.028	0.12	0.17	87
"	Bis(2-ethylhexyl)phthalate		0.05	4.2	3.7	54
"	Di-n-octylphthalate		<0.028	1.9	1.2	54
"	Acenaphthylene		<0.028	0.032	<0.028	54
"	Fluoranthene		<0.028	0.12	0.097	54
"	Fluorene		<0.028	0.031	0.039	54
"	Phenanthrene		<0.028	0.27	0.19	54
"	Pyrene		<0.028	0.11	0.17	54

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-520	2,4-Dichlorophenol		< 0.01	< 0.01	< 0.01	90
"	2,4,6-Trichlorophenol		< 0.03	< 0.03	< 0.03	103
"	4-Chloro-3-methylphenol		< 0.02	< 0.02	< 0.02	92
"	Pentachlorophenol		< 0.3	< 0.3	< 0.3	102
"	Bis(2-chloroethyl)ether		< 0.028	< 0.028	< 0.028	91
"	1,4-Dichlorobenzene		< 0.028	< 0.028	< 0.028	92
"	Hexachloroethane		< 0.028	< 0.028	< 0.028	96
"	Nitrobenzene		< 0.028	< 0.028	< 0.028	92
"	Naphthalene		< 0.028	< 0.028	< 0.028	93
"	2-Chloronaphthylene		< 0.028	< 0.028	< 0.028	92
"	Phenanthracene		< 0.028	< 0.028	< 0.028	96
"	Di-n-butylphthalate		< 0.028	< 0.02	< 0.02	98
"	Bis(2-ethylhexyl)phthalate		0.07	2.0	2.1	110
"	Di-n-octylphthalate		0.04	0.58	0.50	------
"	2,4-Dinitrotoluene		< 0.14	< 0.14	< 0.14	88

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-700	PCB		<0.1	<0.1	<0.1	85
"	Aldrin		<0.004	<0.004	<0.004	77
"	p,p'-DDE		< 0.004	<0.004	<0.004	59
"	p,p'-DDT		< 0.012	<0.012	<0.012	76
"	Endosulfan I		<0.014	< 0.014	<0.014	71
"	Thiram		<0.028	<0.028	<0.028	62
"	2-Chlorophenol		<0.02	<0.02	<0.02	42
"	2-Nitrophenol		<0.02	<0.02	<0.02	68
"	2,4-Dinitrophenol		<0.02	<0.02	<0.02	41

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-700	2,4-Dichlorophenol		<0.01	<0.01	<0.01	58
"	2,4,6-Trichlorophenol		<0.03	<0.03	<0.03	73
"	4-Chloro-3-methylphenol		<0.02	<0.02	<0.02	62
"	Pentachlorophenol		<0.3	<0.3	<0.3	80
"	Bis(2-Chloroethyl)ether		<0.028	<0.028	<0.028	79
"	1,4-Dichlorobenzene		<0.028	<0.028	<0.028	78
"	Hexachloroetheane		<0.028	<0.028	<0.028	82
"	Nitrobenzene		<0.028	<0.028	<0.028	79
"	Naphthalene		<0.028	<0.028	<0.028	81
"	2-Chloronaphthylene		<0.028	<0.028	<0.028	81
"	2,4-Dinitrotoluene		<0.14	<0.14	< 0.14	80
"	Phenanthracene		<0.028	<0.028	<0.028	57
"	Di-n-butyl phthalate		<0.028	<0.028	<0.028	82
"	Bis(2-ethylhexyl)phthalate		0.049	1.2	0.92	67
"	Di-n-octylphthalate		0.03	0.064	0.073	---------

SET 2 - WATER DATA

NOTE: SAMPLE I.D. # 9-943 IS SYNONYMOUS TO 4090-943

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Results A	Results B	Spike Recovery %
9-943	Al	100.80	<0.10	<0.10	0.15	99.4
9-944	Sb	109.50	<0.002	<0.002	<0.002	114.19
9-943	Ba	105.40	<0.10	0.25	0.10	100.70
9-944	As	98.93	<0.002	<0.002	<0.002	118.11
9-943	Be	97.87	<0.01	<0.01	<0.01	92.97
	Cd	FURANCE -	STANDARD ADDITIONS METHOD			
	Cr	FURANCE -	STANDARD ADDITONS METHOD			
9-943	Co	94.97	<0.01	<0.01	<0.01	95.10
9-943	Cu	100.90	<0.01	<0.01	<0.01	101.20
9-943	Fe	93.33	<0.02	0.08	0.08	93.67
	Pb	FURANCE -	STANDARD ADDITIONS METHOD			
9-943	Mn	95.33	<0.01	0.02	0.01	91.50
9-940	Hg	94.60	<0.0005	<0.0005	<0.0005	81.40
9-944	Ni	91.00	<0.02	<0.02	<0.02	93.50
9-944	Se	111.00	<0.001	<0.001	<0.001	127.25
9-943	Ag	90.90	<0.01	<0.01	<0.01	113.29
9-943	Tl	104.20	<0.02	<0.02	<0.02	99.40
9-943	Sn	100.25	<1.0	<1.0	<1.0	71.85
9-943	V	127.7	<0.10	<0.10	<0.10	107.30
9-943	Zn	99.00	<0.02	<0.01	<0.01	100.50

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
10-521	Cyanide	100	0	< 0.02	< 0.02	100
9-939	Boron	100	0	0.97	0.97	98
9-939	Ammonia	101	< 0.1	2.49	2.07	67
9-699	Sulfide	100	< 0.1	< 0.1	< 0.5	100
9-943	Ammonia	96	<0.1	0.600	0.586	83
9-939	Boron	100	<0.02	0.97	0.97	95
9-699	Sulphide	100	<0.1	<0.5	<0.5	100
10-524	Cyanide	100	<0.02	<0.02	<0.02	101

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Results A	Results B	Spike Recovery %
9-939	2,4-Dichlorophenol		< 0.0003	<0.0003	<0.0003	105
9-939	2,4,6-Trichlorophenol		< 0.0006	<0.0006	<0.0006	110
9-939	4-Chloro-3-methylphenol		< 0.0004	<0.0004	<0.0004	84
9-939	Pentachlorophenol		< 0.007	<0.007	<0.007	96
9-939	Bis(2-chloroethyl)ether		< 0.005	<0.005	<0.005	87
9-939	1,4-Dichlorobenzene		< 0.005	<0.005	<0.005	88
9-939	Hexachloroethane		< 0.005	<0.005	<0.005	87
9-939	Nitrobenzene		< 0.005	<0.005	<0.005	80
9-939	Naphthalene		< 0.005	<0.005	<0.005	90
9-939	2-Chloronaphthylene		< 0.005	<0.005	<0.005	82
9-939	2,4-Dinitrotoluene		< 0.005	<0.005	<0.005	87
9-939	Phenanthracene		< 0.005	<0.005	<0.005	93
9-939	Di-n-butyl phthalate		< 0.005	<0.005	<0.005	102
9-939	Bis(2-ethylhexyl)phthalate		< 0.005	<0.005	<0.005	91
9-939	Di-n-octylphthalate		< 0.005	<0.005	<0.005	82
9-939	PCB ug/l		< 0.25	< 0.25	<0.25	90
9-939	Aldrin ug/l		< 0.04	< 0.04	<0.04	84
9-939	p,p'-DDE ug/l					89
9-939	p,p'-DDT ug/l		< 0.11	< 0.11	<0.11	87
9-939	Endosulfan I ug/l		< 0.14	< 0.14	<0.14	96
9-939	Thiram		0.11	< 0.11	<0.11	71

Sample I.D.	Parameter	Method Standard Recovery	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-939	2-Chlorophenol		0.005	0.005	0.005	102
9-939	2-Nitrophenol		0.005	0.005	0.005	110
9-939	2,4-Dinitrophenol		0.015	0.015	0.015	96

Sample I.D.	Parameter	Method Standard Recovery %	Results Blank	A	B	Spike Recovery %
9-944	Chloroform		<0.004	<0.004	<0.004	90
9-944	Chloroethane		<0.002	<0.002	<0.002	96
9-944	Methylene chloride		<0.004	<0.004	<0.004	110
9-944	1,1,1-Trichloroethane		<0.002	<0.002	<0.002	88
9-944	Trichloroethene		<0.002	<0.002	<0.002	90
9-944	Chloroebenzene		<0.002	<0.002	<0.002	95
9-944	1,2-Dichloroebenzene		<0.0002	<0.0002	<0.0002	86
9-944	Toluene		<0.0004	<0.0004	<0.0004	94
9-944	Benzene		<0.0002	<0.0002	<0.0002	89
9-944	Ethylbenzene		<0.0002	<0.0002	<0.0002	90

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-945	PCB ug/l		<0.25	<0.25	<0.25	83
9-945	Aldrin ug/l		<0.04	<0.04	<0.04	87
9-945	p,p'-DDE ug/l		<0.08	<0.08	<0.08	102
9-945	p,p'-DDT ug/l		<0.11	<0.11	<0.11	94
9-945	Endosulfan I ug/l		<0.14	<0.14	<0.14	88
9-945	Thiram		<0.01	<0.01	<0.01	77
9-945	2-Chlorphenol		<0.0005	<0.0005	<0.0005	110
9-945	2-Nitrophenol		<0.0005	<0.0005	<0.0005	120
9-945	2,4-Dinitrophenol		<0.015	<0.015	<0.015	95
9-945	2,4-Dichlorphenol		<0.003	<0.003	<0.003	118
9-945	2,4,6-Trichlorophenol		<0.006	<0.006	<0.006	115
9-945	4-Chloro-3-methylphenol		<0.004	<0.004	<0.004	97
9-945	Pentachlorphenol		<0.007	<0.007	<0.007	120
9-945	Bis(2-Chloroethyl)ether		<0.005	<0.005	<0.005	82
9-945	1,4-Dichlorobenzene		<0.005	<0.005	<0.005	80
9-945	Hexachloroethane		<0.005	<0.005	<0.005	89
9-945	Nitrobenzene		<0.005	<0.005	<0.005	91
9-945	Naphthalene		<0.005	<0.005	<0.005	94
9-945	2-Chloronaphthylene		<0.005	<0.005	<0.005	88
9-945	2,4-Dinitrotoluene		<0.005	<0.005	<0.005	85
9-945	Phenanthracene		<0.005	<0.005	<0.005	92

Sample I.D.	Parameter	Method Standard Recovery %	Blank	Duplicate Results A	Duplicate Results B	Spike Recovery %
9-945	Di-n-butyl phthalate		< 0.005	<0.005	<0.005	98
9-945	Bis(2-ethylhexyl) phthalate		< 0.005	<0.005	<0.005	103
9-945	Di-n-octylphthalate		< 0.005	<0.005	<0.005	95
9-945	TOC	110	< 2.0	110	100	79

SET 3 - MISCELLANEOUS DATA

SULFIDE DATA

Lab No.	Dilution	ml of 0.025 N KI	ml of Titrant 0.025 N	mg/kg Sulfide
9-508	38.5g/200 ml	1 ml	1 ml	< 0.5
9=508 Dup	40g/200 ml	1 ml	1 ml	< 0.5
9-508+1.5 mg/kg	40g/200 ml	1 ml	0.85 ml	1.5 100% r
9-512	39.5g/200 ml	1 ml	1 ml	< 0.5
9-512 Dup	40.0g/200 ml	1 ml	1 ml	< 0.5
9-512+1.5 mg/kg	39.89g/200 ml	1 ml	0.85 ml	1.5 100% r
9=504	38.0g/200 ml	1 ml	1 ml	< 0.5
9-504 Dup	37.0g/200 ml	1 ml	1 ml	< 0.5
9-504+7.4 mg/kg	8.15g/200 ml	1 ml	0.87 ml	6.38 86% r

FURNACE DATA

Cadmium

Sample #	+Addition	Peak Heights
9-939	+0 ug	2,3,2,3
	+2.5 ug	36,35
	+5.0 ug	58,56
9-940	+0	5,3
	+2.5	34,30
	+5.0	57,53
9-941	+0	6,3
	+2.5	36,34
	+5.0	58,58
9-942	+0	1,2
	+2.5	36,36
	+5.0	74,64
9-943	+0	3,4
	+2.5	30,31
	+5.0	80,65
9-944	+0	4,4
	+2.5	39,35
	+5.0	57,58
9-945	+0	3,4
	+2.5	49,48
	+5.0	76,70

Chrome

Sample #	+Addition	Peak Heigh
9-939	+0 ug	11,12
	+5 ug	22,24
	+10 ug	42,47
9-940	+0	7,6
	+5	26,26
	+10	45,49
9-941	+0	20,22,17
	+5	39,39,40
	+10	55,58
9-942	+0	8,11,8
	+5	24,26
	+10	52,55,51
9-943	+0	6,6,5
	+5	32,30
	+10	51,54
9-944	+0	5,5
	+5	28,33
	+10	51,54
9-945	+0	4,5
	+5	25,27
	+10	50,47

HYDRIDE GENERATION DATA FOR SELENIUM

Calibration Standard		Absorbance (x1000)
0	ug/l	8,8
4	ug/l	63,61
7	ug/l	96,89
10	ug/l	128,130

Sample #	Absorbance (x1000)
9-939	10
9-940	14
9-941	8
9-942	16
9-943	8
9-944-1	14
9-944-2	14
9-944 +(0.004)	71
9-945	7
MS (0.007)	103
BL	11

SHRADER ANALYTICAL & CONSULTING LABORATORIES , INC.

QUANTITATION SUMMARY

Customer : CANTON LABORATORIES 11-06-1984

SL#10718 11 gr extracted of sample 9-699

COMPOUND	CONCENTRATION Milligrams/Kilogram	D.L.
ACENAPHTHENE	N.D.	0.022
ACENAPHTHYLENE	N.D.	0.022
ANTHRACENE	0.084	0.022
BENZIDINE	N.D.	0.022
BENZO(a)ANTHRACENE	N.D.	0.022
BENZO(a)PYRENE	0.074	0.043
3,4-BENZOFLUORANTHENE	N.D.	0.043
BENZO(ghi)PERYLENE	N.D.	0.065
BENZO(k)FLUORANTHENE	N.D.	0.043
bis(2-CHLOROETHOXYMETHANE	N.D.	0.022
bis(2-CHLOROETHYL)ETHER	N.D.	0.022
bis(2-CHLOROISOPROPYL)ETHER	N.D.	0.022
bis(2-ETHYLHEXYL)PHTHALATE	0.249	0.022
4-BROMOPHENYL PHENYL ETHER	N.D.	0.022
BUTYL BENZYL PHTHALATE	N.D.	0.022
2-CHLORONAPHTHALENE	N.D.	0.022
4-CHLOROPHENYL PHENYL ETHER	N.D.	0.022
CHRYSENE	N.D.	0.022
DIBENZO(a,h)ANTHRACENE	N.D.	0.065
1,2-DICHLOROBENZENE	N.D.	0.022
1,3-DICHLOROBENZENE	N.D.	0.022
1,4-DICHLOROBENZENE	N.D.	0.022
3,3'-DICHLOROBENZIDINE	N.D.	0.054
DIETHYL PHTHALATE	N.D.	0.022
DIMETHYL PHTHALATE	N.D.	0.022
DI-n-BUTYL PHTHALATE	N.D.	0.022
2,4-DINITROTOLUENE	N.D.	0.108
2,6-DINITROTOLUENE	N.D.	0.108
DI-n-OCTYL PHTHALATE	N.D.	0.022
1,2-DIPHENYLHYDRAZINE	N.D.	0.022
FLUORANTHENE	N.D.	0.022
FLUORENE	N.D.	0.022
HEXACHLOROBENZENE	N.D.	0.022
HEXACHLOROBUTADIENE	N.D.	0.022
HEXACHLOROCYCLOPENTADIENE	N.D.	0.022
HEXACHLOROETHANE	0.676	0.022
INDENO(123-cd)PYRENE	N.D.	0.054
ISOPHORONE	N.D.	0.043
NAPHTHALENE	0.057	0.022
NITROBENZENE	N.D.	0.022
N-NITROSO-DIMETHYLAMINE	N.D.	0.022
N-NITROSO-DI-n-PROPYLAMINE	N.D.	0.043
N-NITROSO-DIPHENYLAMINE	N.D.	0.022
PHENANTHRENE	0.103	0.022
PYRENE	0.163	0.022
1,2,4-TRICHLOROBENZENE	N.D.	0.022
THIRAM	N.D.	0.022
TOTAL POLLUTANTS	1.406	

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9-699

T=TIC