

Chemical Analysis Report

SIS-2009-09-15-01

Florida Department of Environmental Protection
Central Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

Florida Department of Environmental Protection
Innovation Park Laboratory
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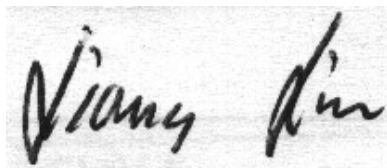
Event Description: **Acreage Sampling PBC**
Request ID: **RQ-2009-09-14-45**
Customer: **SIS**
Project ID: **SIS-INVEST**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Road
Twin Towers Bldg. MS# 4515
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Attn: Bill Martin

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Certified by: Liang Lin, Environmental Manager

Date Certified: 25-SEP-2009 17:12

A handwritten signature in black ink, appearing to read "Liang Lin", is written over a light gray rectangular background.

Abbreviations and data remark codes

CERT # - NELAP (National Environmental Laboratory Accreditation Program) Certification Number of the laboratory that performed the analysis.

LCS – Laboratory Control Sample; in the QC Failures column, this notation indicates a batch recovery failure.

MS – Matrix Spike; in the QC Failures column, this notation indicates a batch recovery failure.

RPD – Relative Percent Difference; in the QC Failures column, this notation indicates a batch failure for precision.

CCV – Continuing Calibration Verification; in the QC Failures column, this notation indicates a failure of the calibration verification check sample.

RSD – Relative Standard Deviation expressed as a percentage.

SMP – Sample.

* - Item was outside the QC Limits.

** - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

A - Value reported is the mean of two or more determinations

B - Results based on colony counts outside the acceptable range.

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

J - Estimated value

K - Actual value is known to be less than value given

L - Actual value is known to be greater than value given

N - Presumptive evidence of presence of material.

O - Sampled, but analysis lost or not performed.

Q - Sample held beyond normal holding time.

T - Value reported is less than the criterion of detection.

U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.

V - Analyte was detected in both sample and method blank.

X - Too few individuals to calculate SCI value.

Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate

Z - Colonies were too numerous to count (TNTC).

Precision is reported as relative percent difference unless otherwise noted.

Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published test performance acceptance criteria.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

All sample collection performed by Bureau of Laboratories staff followed the field Standard Operating Procedures adopted by reference in Rule 62-160 FAC unless otherwise noted.

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Results for NELAP accredited tests contained in this report meet the requirements specified by the National Environmental Laboratory Accreditation Conference (NELAC). All samples received were in acceptable condition and met NELAC requirements unless otherwise noted. Results generated in this report pertain to the samples collected and submitted for analysis.

Job: TLH-2009-09-15-01

Job: TLH-2009-09-15-02

Job: TLH-2009-09-15-03

Job: TLH-2009-09-15-04

Job: TLH-2009-09-15-05

Job: TLH-2009-09-15-06

Group: Priority Organic Pollutants

Group: Pesticides

Group: Priority Organic Pollutants

Group: Pesticides

Group: Metals

Group: Nutrients

Sample Location: ACREAGE

Collection Date/Time: 09/14/2009 02:33 PM

Field ID: 5Z-15530 42ND RD N.

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1214820	EPA 522	1,4-Dioxane**	0.20	U		ug/L	E31640
1214821	EPA 8260C	Benzene	0.20	U		ug/L	
		Bromodichloromethane	0.20	U		ug/L	
		Bromoform	0.50	U		ug/L	
		Bromomethane	0.50	U		ug/L	
		2-Butanone	10	U		ug/L	
		Carbon tetrachloride	0.20	U		ug/L	
		Chlorobenzene	0.20	U		ug/L	
		Chloroethane	0.50	U		ug/L	
		Chloroform	0.20	U		ug/L	
		Chloromethane	0.50	U		ug/L	
		Dibromochloromethane	0.20	U		ug/L	
		1,2-Dichlorobenzene	0.50	U		ug/L	
		1,3-Dichlorobenzene	0.50	U		ug/L	
		1,4-Dichlorobenzene	0.50	U		ug/L	
		1,1-Dichloroethane	0.20	U		ug/L	
		1,2-Dichloroethane	0.20	U		ug/L	
		1,1-Dichloroethene	0.50	U		ug/L	
		cis-1,2-Dichloroethene	0.50	U		ug/L	
		trans-1,2-Dichloroethene	0.50	U		ug/L	
		1,2-Dichloropropane	0.50	U		ug/L	
		cis-1,3-Dichloropropene	0.50	U		ug/L	
		trans-1,3-Dichloropropene	0.20	U		ug/L	
		Ethylbenzene	0.50	U		ug/L	
		Methylene chloride	0.50	U		ug/L	
		1,1,2,2-Tetrachloroethane	0.50	U		ug/L	
		Tetrachloroethene	0.50	U		ug/L	
		Toluene	0.50	U		ug/L	
		1,1,1-Trichloroethane	0.20	U		ug/L	
		1,1,2-Trichloroethane	0.20	U		ug/L	
		Trichloroethene	0.20	U		ug/L	
		Trichlorofluoromethane	0.50	U		ug/L	
		Vinyl chloride	0.50	U		ug/L	
		Methyl-t-butyl ether	0.50	U		ug/L	
		o-Xylene	0.20	U		ug/L	
		m,p-Xylene	0.50	U		ug/L	
1214822	DEP SOP: LC-001-2	2,4-D	0.20	U		ug/L	E31780
		2,4,5-T	0.20	U		ug/L	
		Acifluorfen	0.20	U		ug/L	
		Silvex	0.20	U		ug/L	
1214823	EPA 8270D	Acenaphthene	0.96	U		ug/L	
		Acenaphthylene	0.96	U		ug/L	
		Acetophenone	0.96	U		ug/L	
		2-Acetylaminofluorene	0.96	U		ug/L	
		4-Aminobiphenyl	3.8	U		ug/L	
		Aniline	0.96	U		ug/L	

Field ID: 5Z-15530 42ND RD N.

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
		Anthracene	0.96	U		ug/L	
		Azobenzene/1,2-Diphenylhydrazine	0.96	U		ug/L	
		Benzidine	96	U		ug/L	
		Benzo(a)anthracene	0.96	U		ug/L	
		Benzo(a)pyrene	0.96	U		ug/L	
		Benzo(b)fluoranthene	0.96	U		ug/L	
		Benzo(k)fluoranthene	0.96	U		ug/L	
		Benzo(g,h,i)perylene	0.96	U		ug/L	
		Benzyl alcohol	0.96	U		ug/L	
		Bis(2-chloroethoxy)methane	0.96	U		ug/L	
		Bis(2-chloroethyl)ether	0.96	U		ug/L	
		Bis(2-chloroisopropyl)ether	2.9	U		ug/L	
		Bis(2-ethylhexyl)phthalate	14	U		ug/L	
		Butyl benzyl phthalate	4.8	U		ug/L	
		4-Bromophenyl phenyl ether	0.96	U		ug/L	
		4-Chloroaniline	0.96	U		ug/L	
		2-Chloronaphthalene	0.96	U		ug/L	
		4-Chlorophenyl phenyl ether	1.9	U		ug/L	
		Chrysene	0.96	U		ug/L	
		m,p-Cresols	1.9	U		ug/L	
		o-Cresol	1.9	UJ	RPD	ug/L	
		Di-n-butyl phthalate	4.8	U		ug/L	
		Di-n-octyl phthalate	0.96	U		ug/L	
		Dibenzo(a,h)anthracene	0.96	U		ug/L	
		Dibenzofuran	0.96	U		ug/L	
		3,3'-Dichlorobenzidine	38	UJ	CCV	ug/L	
		Diethyl phthalate	0.96	U		ug/L	
		Dimethyl phthalate	9.6	U		ug/L	
		Dimethylaminoazobenzene	0.96	U		ug/L	
		7,12-Dimethylbenz(a)anthracene	0.96	U		ug/L	
		3,3'-Dimethylbenzidine	19	UJ	CCV	ug/L	
		1,3-Dinitrobenzene	1.9	U		ug/L	
		2,4-Dinitrotoluene	0.96	U		ug/L	
		2,6-Dinitrotoluene	0.96	U		ug/L	
		Dinoseb**	3.8	U		ug/L	
		Ethyl methanesulfonate	0.96	U		ug/L	
		Fluoranthene	0.96	U		ug/L	
		Fluorene	0.96	U		ug/L	
		Hexachlorobenzene	0.96	U		ug/L	
		Hexachlorobutadiene	2.9	U		ug/L	
		Hexachlorocyclopentadiene	2.9	U		ug/L	
		Hexachloroethane	2.9	U		ug/L	
		Hexachloropropene	1.9	U		ug/L	
		Indeno(1,2,3-cd)pyrene	0.96	U		ug/L	
		Isophorone	0.96	U		ug/L	
		Isosafrole	0.96	U		ug/L	
		Methapyrilene	3.8	UJ	CCV,LCS	ug/L	
		3-Methylcholanthrene	0.96	U		ug/L	
		Methyl methanesulfonate	0.96	UJ	CCV	ug/L	

Field ID: 5Z-15530 42ND RD N.

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
		2-Methylnaphthalene	0.96	U		ug/L	
		Naphthalene	0.96	U		ug/L	
		1-Naphthylamine	9.6	U		ug/L	
		2-Naphthylamine	9.6	UJ	MS	ug/L	
		1,4-Naphthoquinone	19	UJ	CCV	ug/L	
		2-Nitroaniline	0.96	U		ug/L	
		3-Nitroaniline	0.96	U		ug/L	
		4-Nitroaniline	0.96	UJ	LCS,MS	ug/L	
		Nitrobenzene	1.9	U		ug/L	
		Nitroquinoline-1-oxide	19	U		ug/L	
		5-Nitro-o-toluidine	0.96	U		ug/L	
		N-Nitrosodiethylamine	0.96	U		ug/L	
		N-Nitrosodimethylamine	1.9	U		ug/L	
		N-Nitrosodi-n-propylamine	1.9	U		ug/L	
		N-Nitrosomethylethylamine	1.9	U		ug/L	
		N-Nitrosomorpholine	0.96	U		ug/L	
		N-Nitrosopiperidine	0.96	U		ug/L	
		N-Nitrosopyrrolidine	1.9	U		ug/L	
		Pentachlorobenzene	0.96	U		ug/L	
		Pentachloroethane**	48	U		ug/L	
		Pentachloronitrobenzene	0.96	U		ug/L	
		Phenacetin	3.8	U		ug/L	
		Phenanthrene	0.96	U		ug/L	
		2-Picoline	0.96	U		ug/L	
		Pyrene	0.96	U		ug/L	
		Pyridine	3.8	U		ug/L	
		Safrole	0.96	U		ug/L	
		1,2,4,5-Tetrachlorobenzene	0.96	U		ug/L	
		o-Toluidine	0.96	U		ug/L	
		1,2,4-Trichlorobenzene	0.96	U		ug/L	
		1,3,5-Trinitrobenzene	3.8	U		ug/L	
		4-Chloro-3-methylphenol	0.96	U		ug/L	
		2-Chlorophenol	0.96	U		ug/L	
		2,4-Dichlorophenol	0.96	U		ug/L	
		2,6-Dichlorophenol	0.96	U		ug/L	
		2,4-Dimethylphenol	9.6	U		ug/L	
		2,4-Dinitrophenol	14	U		ug/L	
		2-Methyl-4,6-dinitrophenol	2.9	U		ug/L	
		2-Nitrophenol	0.96	U		ug/L	
		4-Nitrophenol	14	U		ug/L	
		Pentachlorophenol	2.9	U		ug/L	
		Phenol	0.96	U		ug/L	
		2,3,4,6-Tetrachlorophenol	1.9	U		ug/L	
		2,4,5-Trichlorophenol	0.96	U		ug/L	
		2,4,6-Trichlorophenol	0.96	U		ug/L	
		N-Nitrosodiphenylamine/ Diphenylamine	2.9	U		ug/L	
1214824	FL-PRO	TRPH	0.24	U		mg/L	
1214825	EPA 504	1,2-Dibromoethane	0.010	U		ug/L	
1214826	DEP SOP: GC-011-5 (based on EPA Methods 608, 617, 1656)	Aldrin	0.0098	U		ug/L	

Field ID: 5Z-15530 42ND RD N.

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
		Alpha-BHC	0.0098	U		ug/L	
		Beta-BHC	0.0098	U		ug/L	
		Delta-BHC	0.0098	U		ug/L	
		Gamma-BHC	0.0098	U		ug/L	
		Chlordane	0.20	U		ug/L	
		DDD-p,p'	0.020	U		ug/L	
		DDE-p,p'	0.020	U		ug/L	
		DDT-p,p'	0.029	U		ug/L	
		Dieldrin	0.020	U		ug/L	
		Endosulfan I	0.020	U		ug/L	
		Endosulfan II	0.020	U		ug/L	
		Endosulfan Sulfate	0.020	U		ug/L	
		Endrin	0.049	U		ug/L	
		Endrin Aldehyde	0.020	U		ug/L	
		Heptachlor	0.0098	U		ug/L	
		Heptachlor Epoxide	0.020	U		ug/L	
		Methoxychlor	0.049	U		ug/L	
		Toxaphene	0.74	U		ug/L	
		PCB-1016	0.20	U		ug/L	
		PCB-1221	0.20	U		ug/L	
		PCB-1232	0.20	U		ug/L	
		PCB-1242	0.29	U		ug/L	
		PCB-1248	0.20	U		ug/L	
		PCB-1254	0.29	U		ug/L	
		PCB-1260	0.20	U		ug/L	
	DEP SOP: GC-012-3 (based on EPA 614, 619, 622, 633 and 507)	Alachlor	0.59	UJ	CCV	ug/L	
		Ametryn	0.049	U		ug/L	
		Atrazine	0.049	U		ug/L	
		Azinphos Methyl	0.20	U		ug/L	
		Bromacil	0.20	U		ug/L	
		Butylate	0.20	U		ug/L	
		Chlorpyrifos Ethyl	0.049	U		ug/L	
		Chlorpyrifos Methyl	0.098	U		ug/L	
		Diazinon	0.049	U		ug/L	
		Ethion	0.049	U		ug/L	
		Ethoprop	0.098	U		ug/L	
		Fenamiphos	0.20	U		ug/L	
		Fonofos	0.098	U		ug/L	
		Hexazinone	0.098	U		ug/L	
		Malathion	0.15	U		ug/L	
		Metalaxyl	0.25	U		ug/L	
		Metolachlor	0.49	U		ug/L	
		Metribuzin	0.098	U		ug/L	
		Mevinphos	0.20	U		ug/L	
		Naled	0.79	U		ug/L	
		Norflurazon	0.15	U		ug/L	
		Parathion Ethyl	0.15	U		ug/L	

Field ID: 5Z-15530 42ND RD N.

Matrix: W-GROUND

Sample ID	Ref. Method	Component	Result	Code	QC Failures	Units	Cert #
1214827	EPA 6010C	Parathion Methyl	0.098	U		ug/L	
		Phorate	0.049	U		ug/L	
		Prometon	0.20	U		ug/L	
		Prometryn	0.15	U		ug/L	
		Simazine	0.049	U		ug/L	
		Aluminum	60	U		ug/L	
	EPA 6020A	Strontium	1.05E+03	A		ug/L	
		Titanium	0.50	U		ug/L	
		Arsenic	0.60	I		ug/L	
		Barium	119	A		ug/L	
		Cadmium	0.030	U		ug/L	
		Chromium	0.30	U		ug/L	
		Copper	3.18	A		ug/L	
		Lead	0.66	I		ug/L	
		Selenium	0.31	I		ug/L	
		Silver	0.025	U		ug/L	
	EPA 7470A	Mercury	0.12	U		ug/L	
1214828	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	UJ	MS	mg N/L	

Ref. Method and Comment:

EPA 8260C There was insufficient sample to prepare duplicate matrix spikes.

EPA 8270D QC failure(s) observed.

EPA 504 Insufficient sample to perform MS duplicate.

DEP SOP: GC-012-3 (based on EPA 614, 619, 622, 633 and 507) QC failure(s) observed.

EPA 6020A The barium matrix spike recoveries could not be assessed due to a high analyte concentration in the QC sample.

EPA 353.2 Rev. 2.0 QC failure(s) observed.

Quality Control Report

Ref. Method	Analyte	LCS %Recovery		MS %Recovery		LCS	Precision SMP	MS
EPA 522	1,4-Dioxane	81.3	75.4	74.0	78.2	7.56		5.50
EPA 8260C	1,1,1-Trichloroethane	88.4	90.4	88.9		2.24		
	1,1,2,2-Tetrachloroethane	104	103	114		0.964		
	1,1,2-Trichloroethane	99.3	101	103		1.90		
	1,1-Dichloroethane	96.3	97.8	97.6		1.55		
	1,1-Dichloroethene	109	112	109		2.90		
	1,2-Dichlorobenzene	86.5	88.1	86.8		1.83		
	1,2-Dichloroethane	96.5	98.4	97.7		1.95		
	1,2-Dichloropropane	91.8	93.1	90.6		1.41		
	1,3-Dichlorobenzene	97.2	98.8	98.2		1.63		
	1,4-Dichlorobenzene	93.1	93.9	95.2		0.856		
	Benzene	98.0	99.1	97.0		1.12		
	Bromodichloromethane	92.8	96.8	94.6		4.22		
	Bromoform	84.7	85.3	86.8		0.706		
	Bromomethane	119	121	110		1.76		
	Carbon tetrachloride	90.2	90.8	88.8		0.663		
	Chlorobenzene	95.5	97.1	96.0		1.66		
	Chloroethane	117	117	115		0.684		
	Chloroform	96.6	98.3	96.8		1.74		
	Chloromethane	122	118	121		3.32		
	Dibromochloromethane	81.4	84.0	81.1		3.14		
	Ethylbenzene	92.1	93.2	92.2		1.19		
	Methyl-t-butyl ether	91.0	91.2	91.1		0.220		
	Methylene chloride	102	105	102		2.70		
	Tetrachloroethene	97.7	96.5	93.1		1.24		
	Toluene	93.0	95.6	94.3		2.76		
	Trichloroethene	93.7	96.7	88.0		3.15		
	Trichlorofluoromethane	113	116	115		2.45		
	Vinyl chloride	100	102	98.1		1.58		

Quality Control Report

Ref. Method	Analyte	LCS %Recovery		MS %Recovery		LCS	Precision SMP	MS
DEP SOP: LC-001-2	cis-1,3-Dichloropropene	74.7	76.4	72.2		2.25		
	m,p-Xylene	94.0	95.2	94.8		1.16		
	o-Xylene	88.5	90.4	88.6		2.12		
	trans-1,2-Dichloroethene	97.8	98.7	98.9		0.916		
	trans-1,3-Dichloropropene	75.4	75.9	73.0		0.661		
	2,4,5-T	102	85.3	99.2	92.7	17.8		5.96
	2,4-D	97.3	95.7	101	104	1.66		3.75
	Acifluorfen	118	106	99.7	86.1	10.7		13.8
	Silvex	101	78.8	85.9	87.6	24.7		2.78
	TRPH	87.4	91.1	96.3	101	4.17		3.77
FL-PRO EPA 8270D	1,2,4,5-Tetrachlorobenzene	88.3	84.0	82.0	82.0	4.97		0.528
	1,2,4-Trichlorobenzene	86.2	82.0	84.7	87.5	4.99		3.78
	1,3,5-Trinitrobenzene	128	133	124	124	4.14		0.609
	1,3-Dinitrobenzene	102	103	98.5	97.4	1.33		0.526
	1,4-Naphthoquinone	76.5	77.6	59.9	59.1	1.45		0.767
	1-Naphthylamine	41.3	33.0	50.9	57.5	22.2		12.7
	2,3,4,6-Tetrachlorophenol	94.3	101	96.9	98.8	7.00		2.56
	2,4,5-Trichlorophenol	90.8	87.6	94.6	93.6	3.59		0.486
	2,4,6-Trichlorophenol	91.3	90.3	90.9	93.4	1.10		3.27
	2,4-Dichlorophenol	98.8	95.5	92.1	96.0	3.34		4.70
	2,4-Dimethylphenol	95.2	95.1	94.8	96.9	0.0420		2.79
	2,4-Dinitrophenol	89.7	74.8	98.5	95.5	18.1		2.47
	2,4-Dinitrotoluene	98.7	103	98.3	101	4.48		3.15
	2,6-Dichlorophenol	98.6	97.5	93.2	92.1	1.14		0.589
	2,6-Dinitrotoluene	95.6	96.2	93.0	96.8	0.584		4.58
	2-Acetylaminofluorene	90.0	93.5	89.6	88.6	3.84		0.590
	2-Chloronaphthalene	89.8	83.6	84.2	85.3	7.11		1.85
	2-Chlorophenol	92.3	87.8	85.8	87.9	4.97		3.06
	2-Methyl-4,6-dinitrophenol	99.3	102	99.3	101	2.74		1.90
	2-Methylnaphthalene	86.3	81.8	82.1	83.5	5.33		2.21
	2-Naphthylamine	59.3	50.6	48.0*	48.1*	15.9		0.910
	2-Nitroaniline	99.9	98.8	96.2	99.6	1.09		4.05
	2-Nitrophenol	104	100	98.1	100	3.65		2.87
	2-Picoline	79.8	76.3	73.8	72.5	4.46		1.17
	3,3'-Dichlorobenzidine	111	110	107	107	1.14		0.726
	3,3'-Dimethylbenzidine	122	123	65.2	64.6	0.884		0.348
	3-Methylcholanthrene	91.1	95.4	90.6	91.0	4.55		1.02
	3-Nitroaniline	97.4	96.7	97.6	99.2	0.763		2.12
	4-Aminobiphenyl	68.4	71.3	71.3	70.5	4.18		0.552
	4-Bromophenyl phenyl ether	91.8	90.3	88.3	90.3	1.67		2.82
	4-Chloro-3-methylphenol	103	103	98.5	103	0.427		4.63
	4-Chloroaniline	92.4	89.4	85.6	85.7	3.30		0.670
	4-Chlorophenyl phenyl ether	91.6	88.9	87.2	89.5	3.06		3.20
	4-Nitroaniline	263*	259*	273*	275*	1.70		1.38
	4-Nitrophenol	43.4	47.7	46.0	48.6	9.40		5.99
	5-Nitro-o-toluidine	100	102	96.3	96.8	2.25		1.07
	7,12-Dimethylbenz(a)anthracene	97.5	102	94.1	94.5	4.22		0.959
	Acenaphthene	89.8	88.2	85.3	87.8	1.80		3.53
	Acenaphthylene	87.6	86.4	85.2	88.3	1.47		4.13
	Acetophenone	96.9	92.4	88.3	88.2	4.73		0.441
	Aniline	73.4	71.7	68.1	68.1	2.34		0.548
	Anthracene	89.6	89.7	88.4	89.9	0.134		2.24
	Azobenzene/1,2-Diphenylhydrazine	89.4	88.6	86.2	87.6	0.854		2.19
	Benzidine	48.7	45.3	31.5	29.8	7.06		5.23
	Benzo(a)anthracene	78.0	80.2	75.8	77.1	2.68		2.36
	Benzo(a)pyrene	86.5	87.1	83.4	84.4	0.691		1.86
	Benzo(b)fluoranthene	91.2	98.1	90.0	92.7	7.35		3.47
	Benzo(g,h,i)perylene	84.4	81.6	82.9	83.6	3.28		1.35
	Benzo(k)fluoranthene	91.9	90.0	85.4	89.4	2.02		5.11
	Benzyl alcohol	83.2	79.0	73.9	75.6	5.18		2.80
	Bis(2-chloroethoxy)methane	99.4	94.8	91.6	95.1	4.70		4.30
	Bis(2-chloroethyl)ether	86.8	77.4	79.5	80.4	11.4		1.68

Quality Control Report

Ref. Method	Analyte	LCS %Recovery		MS %Recovery		Precision	MS
						SMP	
					LCS		
	Bis(2-chloroisopropyl)ether	94.6	88.5	88.2	90.8	6.60	3.48
	Bis(2-ethylhexyl)phthalate	79.2	80.3	75.4	75.9	1.40	1.19
	Butyl benzyl phthalate	78.6	80.0	76.1	77.8	1.82	2.76
	Chrysene	73.4	74.2	70.1	71.8	0.976	2.99
	Di-n-butyl phthalate	98.7	98.8	96.3	96.4	0.122	0.741
	Di-n-octyl phthalate	94.3	96.5	91.8	94.6	2.31	3.58
	Dibenzo(a,h)anthracene	86.1	84.0	81.7	84.5	2.45	3.90
	Dibenzofuran	92.9	89.7	86.3	89.5	3.51	4.17
	Diethyl phthalate	98.6	99.8	95.7	98.0	1.21	3.01
	Dimethyl phthalate	97.5	96.0	93.4	96.2	1.53	3.45
	Dimethylaminoazobenzene	77.9	81.6	75.5	75.5	4.71	0.524
	Dinoseb	114	121	112	115	5.66	2.90
	Ethyl methanesulfonate	92.1	88.6	84.6	85.2	3.85	1.24
	Fluoranthene	93.0	94.4	91.0	92.1	1.58	1.80
	Fluorene	91.5	90.3	88.3	89.7	1.32	2.19
	Hexachlorobenzene	93.4	89.4	87.9	88.6	4.29	1.39
	Hexachlorobutadiene	76.7	77.8	76.4	82.8	1.35	8.62
	Hexachlorocyclopentadiene	45.5	41.7	41.8	44.5	8.71	6.79
	Hexachloroethane	79.8	79.8	78.9	85.0	0.100	8.04
	Hexachloropropene	54.8	54.6	53.6	55.1	0.366	3.38
	Indeno(1,2,3-cd)pyrene	86.3	83.8	82.2	83.9	2.87	2.70
	Isophorone	101	97.2	93.1	96.4	4.03	4.12
	Isosafrole	104	101	92.7	95.0	3.16	3.01
	Methapyrilene	49.8*	60.4	74.6	72.0	19.2	3.08
	Methyl methanesulfonate	72.8	70.4	65.8	65.6	3.30	0.273
	N-Nitrosodi-n-propylamine	97.4	102	90.2	93.0	4.97	3.59
	N-Nitrosodiethylamine	85.6	89.4	77.3	77.7	4.25	1.09
	N-Nitrosodimethylamine	73.2	70.3	70.3	68.1	4.07	2.60
	N-Nitrosodiphenylamine/ Diphenylamine	99.1	101	97.9	99.2	1.44	1.88
	N-Nitrosomethylethylamine	82.2	80.5	71.6	75.6	2.16	5.96
	N-Nitrosomorpholine	93.4	101	82.5	85.1	7.86	3.68
	N-Nitrosopiperidine	90.4	93.3	83.2	84.4	3.13	1.96
	N-Nitrosopyrrolidine	72.5	85.5	53.1	54.7	16.5	3.47
	Naphthalene	95.4	90.8	88.2	90.1	4.98	2.70
	Nitrobenzene	103	100	95.5	100	3.22	5.33
	Nitroquinoline-1-oxide	113	115	86.6	89.4	2.07	3.76
	Pentachlorobenzene	95.1	90.8	86.2	86.6	4.60	1.04
	Pentachloroethane	80.1	79.0	78.3	80.1	1.36	2.80
	Pentachloronitrobenzene	106	110	103	104	3.73	1.50
	Pentachlorophenol	94.6	98.8	99.3	96.6	4.34	2.20
	Phenacetin	102	108	99.4	99.8	5.48	0.898
	Phenanthrene	92.0	91.8	89.4	91.9	0.218	3.39
	Phenol	61.2	59.0	54.0	54.8	3.73	2.19
	Pyrene	71.9	74.0	70.4	71.9	2.80	2.71
	Pyridine	56.5	52.3	51.7	51.3	7.69	0.238
	Safrole	95.1	92.1	86.4	87.8	3.16	2.09
	m,p-Cresols	81.1	79.8	72.1	74.2	1.64	3.37
	o-Cresol	86.0	53.6	79.7	83.9	46.4*	5.66
	o-Toluidine	93.0	82.0	85.4	84.3	12.5	0.743
EPA 504	1,2-Dibromoethane	113	110	109		2.49	
DEP SOP: GC-011-5 (based on EPA Methods 608, 617, 1656)	Aldrin	89.3		89.6	88.2		1.53
	Alpha-BHC	97.8		102	101		0.885
	Beta-BHC	98.3		102	101		0.922
	DDD-p,p'	96.3		101	100		1.24
	DDE-p,p'	103		104	103		1.26
	DDT-p,p'	106		115	113		1.57
	Delta-BHC	106		112	109		2.19
	Dieldrin	92.8		93.3	92.3		1.12
	Endosulfan I	96.9		96.2	95.2		0.966
	Endosulfan II	100		103	102		1.65

Quality Control Report

Ref. Method	Analyte	LCS %Recovery	MS %Recovery	LCS	Precision SMP	MS
DEP SOP: GC-012-3 (based on EPA 614, 619, 622, 633 and 507)	Endosulfan Sulfate	90.6	97.3 95.1			2.28
	Endrin	106	111 110			0.872
	Endrin Aldehyde	94.8	98.4 96.5			1.91
	Gamma-BHC	97.8	102 101			1.17
	Heptachlor	100	104 101			2.13
	Heptachlor Epoxide	95.7	96.2 95.3			0.973
	Methoxychlor	101	104 106			1.78
	Ametryn	91.0	90.9 99.3			8.83
	Atrazine	92.0	97.9 102			4.34
	Chlorpyrifos Ethyl	98.2	99.2 101			1.40
	Chlorpyrifos Methyl	101	106 108			1.50
	Ethion	115	116 117			0.622
	Ethoprop	93.9	98.5 101			2.51
	Hexazinone	103	106 104			1.94
	Malathion	98.3	100 103			2.69
	Metribuzin	98.4	104 106			2.78
	Mevinphos	108	116 118			1.39
	Norflurazon	104	108 104			4.01
	Phorate	93.4	100 97.9			2.28
	Prometryn	98.0	103 105			2.23
EPA 7470A EPA 6010C	Simazine	93.5	98.6 102			3.62
	Mercury	90.2	99.0 87.2	4.55		12.6
	Aluminum	103	104 103			0.440
	Strontium	106	104 105		0.400	
EPA 6020A	Titanium	104	105 104			0.534
	Arsenic	105	98.6 99.2			0.537
	Barium	107			3.16	
	Cadmium	104	101 104			3.51
	Chromium	108	102 105			2.49
	Copper	104	90.6 91.6		8.24	
	Lead	107	110 110			0.758
	Selenium	107	93.3 97.4			4.23
	Silver	106	99.6 99.4			0.125
	NO2NO3-N	98.5	86.2* 85.7*			0.590

Reference Method Descriptions

Ref. Method:	Description
DEP SOP: GC-011-5 (based on EPA Methods 608, 617, 1656)	Organochlorine pesticides and PCBs in water matrices by GC/ECD.
DEP SOP: GC-012-3 (based on EPA 614, 619, 622, 633 and 507)	Organonitrogen and phosphorus pesticides in water matrices by GC/NPD.
DEP SOP: LC-001-2	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L
EPA 504	Fumigants in water matrices by GC/ECD.
EPA 522	1,4-Dioxane in Aqueous Matrices by GC/MS using SIM
EPA 6010C	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting RCRA Projects
EPA 6020A	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting RCRA Projects
EPA 7470A	Mercury in aqueous samples using cold vapor AA spectroscopy.
EPA 8260C	Volatile organic pollutants in acid preserved water matrices using GC/MS
EPA 8270D	EPA Method 8270, Semi-volatile organic pollutants including PAHs, excluding PCBs and Toxaphene, in water matrices by GC/MS.
FL-PRO	Total recoverable petroleum hydrocarbons in water samples by GC-FID.

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared by	Analysis Date/Time	Analyzed by	Associated Samples
DEP SOP: GC-011-5 (based on EPA Methods 608, 617, 1656)	9/15/2009	09/15/2009	Rasheda Ghaffari	09/17/2009	Kristin L. Kline	1214826
DEP SOP: GC-012-3 (based on EPA 614, 619, 622, 633 and 507)	9/15/2009	09/15/2009	Rasheda Ghaffari	09/17/2009	Marek Topolski	1214826
DEP SOP: LC-001-2	9/15/2009	09/16/2009	Hoor Shaik	09/17/2009	Vandana T. Nagar	1214822
EPA 353.2 Rev. 2.0	9/15/2009			09/16/2009	Sima Feizi	1214828
EPA 504	9/15/2009	09/15/2009	Kristin L. Kline	09/16/2009	Kristin L. Kline	1214825
EPA 522	9/15/2009	09/17/2009	Rasheda Ghaffari	09/17/2009	Mohammad Ghaffari	1214820
EPA 6010C	9/15/2009	09/16/2009	Elliott D. Healy	09/17/2009	Elisa J Lutz	1214827
EPA 6020A	9/15/2009	09/16/2009	Elliott D. Healy	09/17/2009	Charles J. Peterson	1214827
EPA 7470A	9/15/2009	09/16/2009	Martin Acosta	09/17/2009	Martin Acosta	1214827
EPA 8260C	9/15/2009			09/15/2009	Farzad Boeshaghi	1214821
EPA 8270D	9/15/2009	09/18/2009	Hoor Shaik	09/18/2009	Mohammad Ghaffari	1214823
FL-PRO	9/15/2009	09/15/2009	Hoor Shaik	09/16/2009	Mohammad Ghaffari	1214824