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MALCOLM PIRNIE, INC.
INDEPENDENT ENVIRONMENTAL ENGINEERS, SCIENTISTS & CONSULTANTS

May 4, 2001

Mr. Raymond Basso, P.E., Chief
RCRA Programs
Branch of Environmental Planning & Protection
United States Environmental
Protection Agency
Region II
U.S. EPA, 2AWM-HWF
290 Broadway
New York, NY 10007-1866

Re: Building 110 Tank Investigation Summary Report
Watervliet Arsenal, Watervliet, New York

Dear Mr. Basso:

On September 11, 2000 Malcolm Pirnie, Inc. (Malcolm Pirnie) and its subcontractor Marcor Remediation, Inc. (Marcor) conducted entry and sampling of the Building 110 tank. The purpose of the entry and sampling was to determine the nature of the tank, its contents, and if the tank is acting as a potential source of contamination to the surrounding environment. If it is determined that the tank is a potential source of contamination to the environment, the work plan calls for the further investigation of the surrounding area to determine the extent if any of soil/groundwater contamination.

The attached Figure 1 shows the approximate location of the Building 110 tank. The former use and the contents of the tank were unknown at the time of the investigation. Therefore, all work conducted by Marcor was completed in level B personnel protection, with air quality monitoring to ensure worker safety. Figure 2 shows selected photographs of the tank entry completed by Marcor. At no time during the tank entry process were elevated concentrations of volatile or combustible gases recorded at the location of the tank or at the perimeter of the work zone. In order to gain entry into the tank a total of 20 bolts holding the lid in place were removed. Once all bolts were removed, the tank lid was removed and the air quality in the immediate vicinity of the tank was again monitored. Based on the results of this monitoring, the level of protection was down graded to level D for the remainder of the sampling activities. Figure 3 shows the construction of the tank, based on visual observations and measurements taken during the sampling activities, Figure 2 also shows photographs of the tank prior to the removal of

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the liquid and sludge. Based on the construction of the tank and the arrangement of the pipes, i.e., a bottom discharge pipe and a top inlet pipe, it is believed that the tank was used as an oil water separator. The tank is constructed of steel, which appears to be approximately one inch in thickness. Visual inspection of the tank, following removal of the liquid and sludge, did not indicate any holes in the walls or bottom of the tank and the tank appeared to be structurally sound.

As presented in the approved work plan, a total of two environmental samples were collected, one liquid and one sediment, with additional duplicates of each media also collected.

The results of the liquid sample analysis indicate low or non-detect concentrations for volatile, semi-volatile, pesticides, and PCBs, as shown in the attached analytical reporting forms. The results of the inorganic analyses indicate that lead, at a maximum reported concentration of 658 ug/l, exceeds the groundwater quality standard of 25 ug/l and may be a result of the highly turbid water sample which was submitted for analysis. The groundwater quality standards are only used for reference and data comparison purposes. The results of the sediment samples however vary significantly for those of the liquid samples. Volatile organic compounds were all reported as non-detect or were also found in the laboratory blank sample and were qualified with a B, with the exception of 2-Butanone which was reported at a concentration of 20J ug/l in sample WVA-TS-01. Numerous semi-volatile organic compounds were reported above the detection limits. The maximum reported concentration for an individual compound was 13,000 ug/kg for pyrene in sample WVA-TS-X-1, duplicate of WVA-TS-01. Several of the carcinogenic PAHs were also detected at elevated concentrations, including Benzo(a)pyrene at a maximum concentration of 5,700 ug/kg in WVA-TS-X-1. Several pesticides were detected above their detection limits, the detected pesticides ranged in concentrations from 13J ug/kg for gamma-Chlordane in sample WVA-TS-01 to 110 ug/kg for 4-4' DDE, also in WVA-TS-01. Several of the reported concentrations for pesticides in sample WVA-TS-01 were not able to be confirmed in the duplicate sample. Aroclor-1260 was reported above the detection limit in sample WVA-TS-01 at a concentration of 550 ug/kg and at a concentration of 340 ug/kg in WVA-TS-X-1. As would be expected inorganic parameters were all reported above their respective detection limits, with the most notable being lead at a maximum concentration of 3,210 mg/kg in sample WVA-TS-01.

At the completion of the sampling activities the liquid and sediment present in the tank was evacuated from the tank and placed in 55-gallon drums pending receipt of the analytical data and a determination of disposal options. The drums and their contents were staged adjacent to the work area pending disposal. Once the tank was pumped dry, the lid of the tank was replaced and several new bolts were added to secure the lid. As a

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result of the analytical data collected by Malcolm Pirnie, Watervliet Arsenal contracted West Central Environmental to dispose of the accumulated liquid. A total of 150 gallons were transported to ENSCO, Inc. and disposed of as hazardous waste. The hazardous waste manifest for this shipment is attached.

Based on the data collected to date, it is not believed that any additional investigation of the area surrounding the tank would be required, since it appears that the potential contaminants are "bound" to the sludge which was present in the bottom of the tank and did not partition into the liquid phase. It is proposed however, that the tank be abandoned in-place by placing flowable fill into the tank and capping with concrete, the pipes which enter the tank will also be sealed at the time of closing the tank. Abandonment of the tank in-place is the preferred method of closure, since it is immediately adjacent to the wall of Building 110, and any excavation/removal activities in this area may cause structural damage to the building.

If you have any questions, please feel free to call me at (518) 786-7349.

Very truly yours,

MALCOLM PIRNIE, INC.

Christopher Gaule
Senior Project Hydrogeologist

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Enclosures
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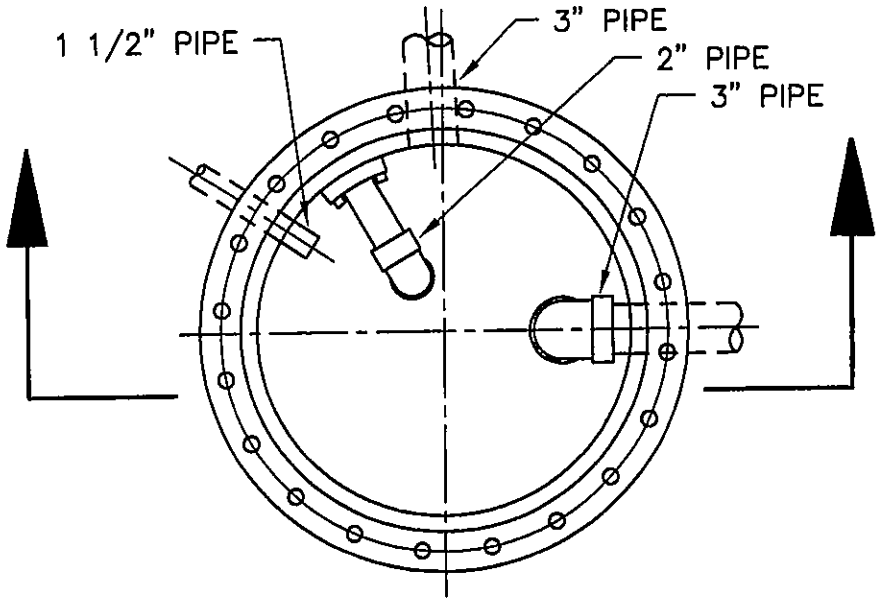
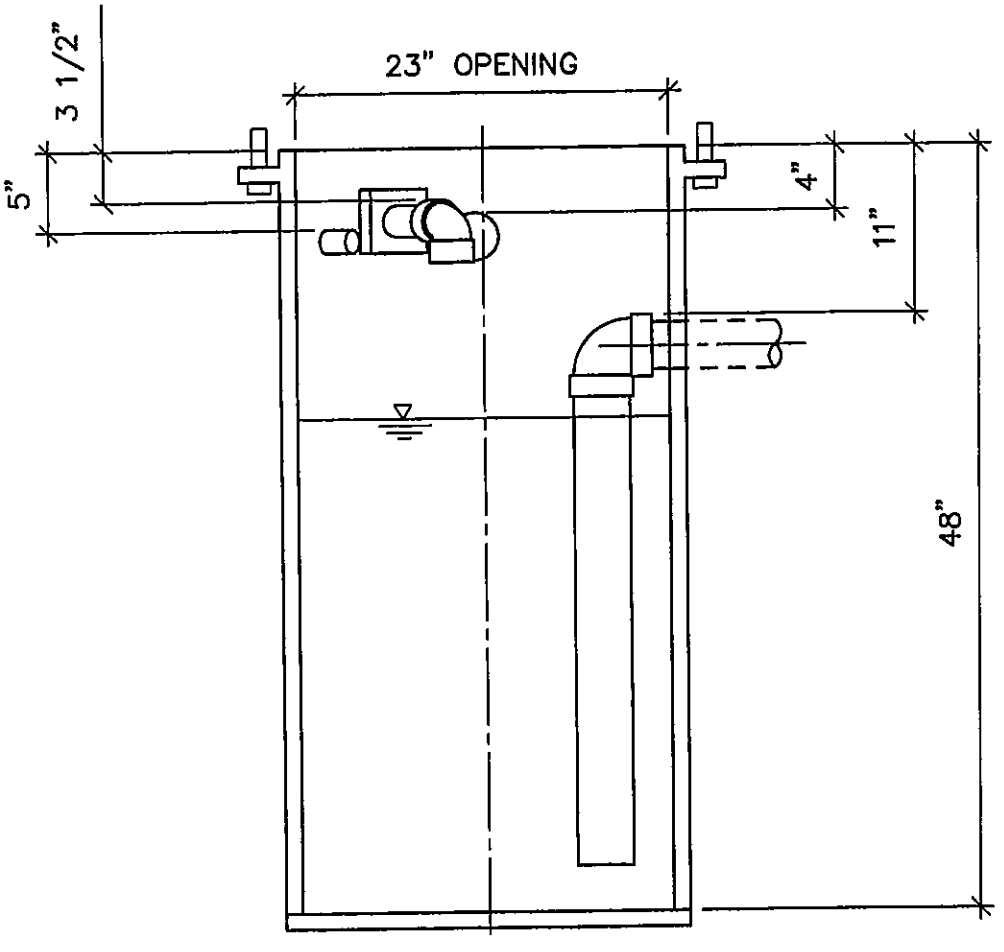


PLAN



SECTION

SCALE: 1"=1'-0"

US Army Corps of Engineers

BULDING 110 TANK INVESTIGATION
TANK DETAIL
WATERVLIET ARSENAL
USACE CONTRACT NO. DACA31-94-D-0017

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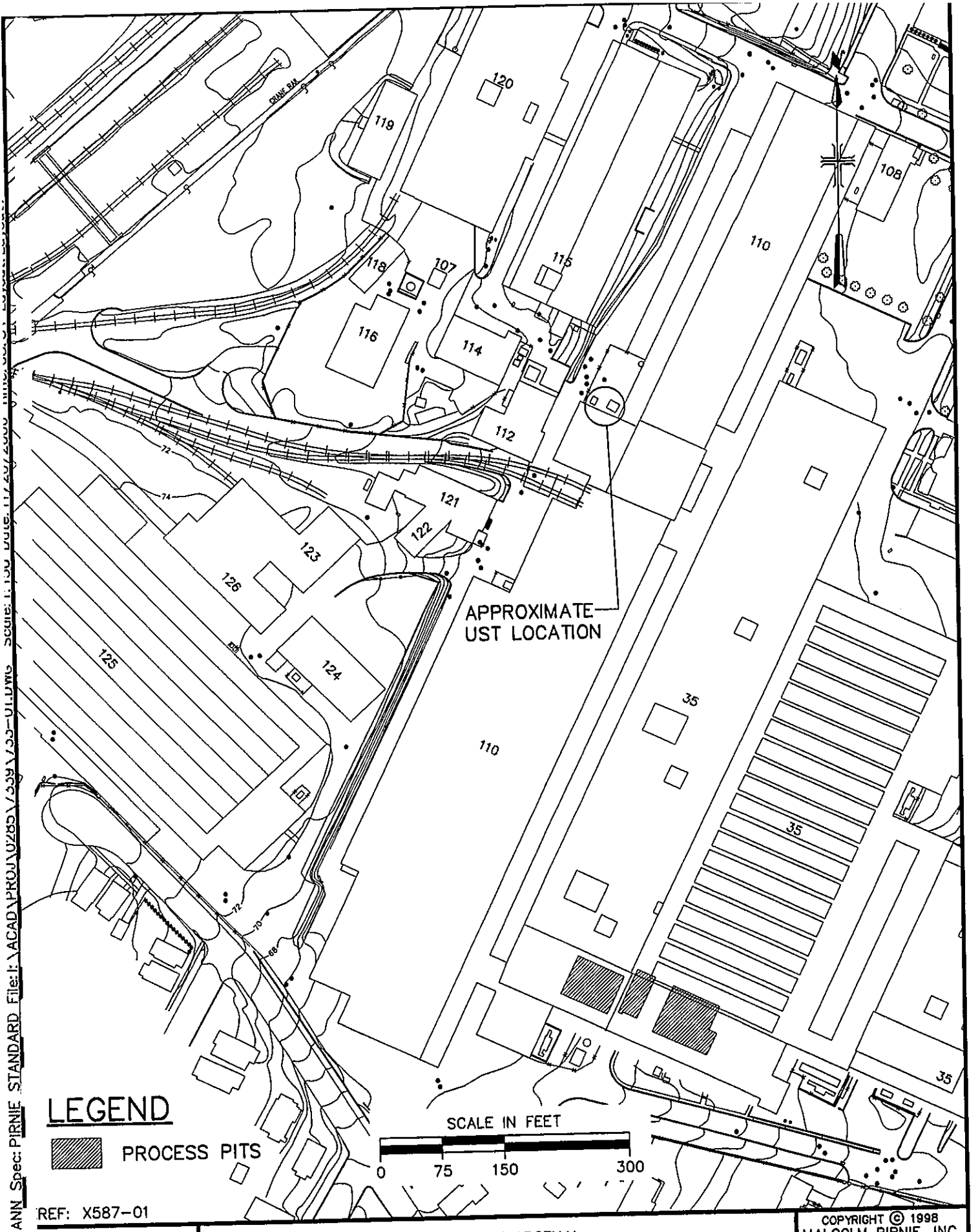
FIGURE 3



WATERVLIET ARSENAL
WATERVLIET, NEW YORK

AREA OF BUILDING 110 UST INVESTIGATION

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FIGURE 1

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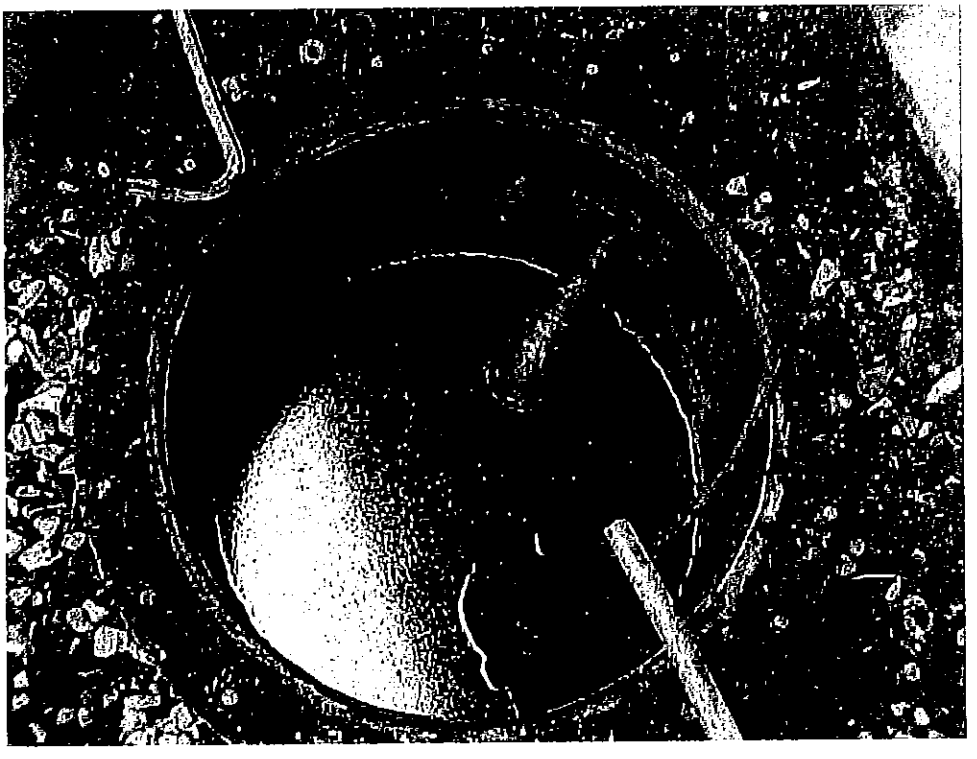
WATERVLIET ARSENAL
BUILDING 110 TANK INVESTIGATION

Site Photographs

FIGURE 2



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WATERVLIET ARSENAL
BUILDING 110 TANK INVESTIGATION

Site Photographs

FIGURE 2

Table-1
Summary of Detected Volatile Organic Compounds in Soil Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TS-01 09/11/00 ug/Kg		WVA-TS-X-1RE 09/11/00 ug/Kg	
Compound				
Benzene	15	U	12	U
Bromodichloromethane	15	U	12	U
Bromoform	15	U	12	U
Bromomethane	30	U	24	U
2-Butanone	20	J	24	U
Carbon Disulfide	15	U	2	JB
Carbon Tetrachloride	15	U	12	U
Chlorobenzene	15	U	12	U
Chloroethane	30	U	24	U
2-Chloroethylvinylether	30	U	24	U
Chloroform	15	U	2	J
Chloromethane	30	U	24	U
Dibromochloromethane	15	U	12	U
1,1-Dichloroethane	15	U	12	U
1,2-Dichloroethane	15	U	12	U
1,1-Dichloroethene	15	U	12	U
trans-1,2-Dichloroethene	15	U	12	U
cis-1,2-Dichloroethene	15	U	12	U
1,2-Dichloropropane	15	U	12	U
cis-1,3-Dichloropropene	15	U	12	U
trans-1,3-Dichloropropene	30	U	24	U
Ethylbenzene	15	U	12	U
Methylene Chloride	16	JB	10	JB
4-Methyl-2-Pentanone	30	U	24	U
1,1,2,2-Tetrachloroethane	15	U	12	U
Tetrachloroethene	15	U	12	U
Toluene	15	U	12	U
1,1,1-Trichloroethane	15	U	12	U
1,1,2-Trichloroethane	15	U	12	U
Trichloroethene	15	U	12	U
Trichlorofluoromethane	30	U	24	U
Vinyl Chloride	30	U	24	U
Xylene (total)	15	U	12	U

Table-1
Summary of Detected Semi-volatile Compounds in Soil Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID	WVA-TS-01		WVA-TS-X-1		WVA-TS-X-1RE	
Date Sampled	09/11/00		09/11/00		09/11/00	
Units	ug/Kg		ug/Kg		ug/Kg	
Compound						
N-Nitrosodimethylamine	1000	U	510	U	510	U
Phenol	110	U	130		150	
bis(2-Chloroethyl)ether	3300	U	1700	U	1700	U
2-Chlorophenol	3300	U	1700	U	1700	U
1,3-Dichlorobenzene	3300	U	1700	U	1700	U
1,4-Dichlorobenzene	3300	U	1700	U	1700	U
1,2-Dichlorobenzene	3300	U	1700	U	1700	U
bis(2-Chloroisopropyl)ether	3300	U	1700	U	1700	U
N-Nitroso-di-n-propylamine	3300	U	1700	U	1700	U
Hexachloroethane	3300	U	1700	U	1700	U
Nitrobenzene	3300	U	1700	U	1700	U
Isophorone	3300	U	1700	U	1700	U
2-Nitrophenol	3300	U	1700	U	1700	U
2,4-Dimethylphenol	3300	U	1700	U	1700	U
bis(2-Chloroethoxy)methane	3300	U	1700	U	1700	U
2,4-Dichlorophenol	3300	U	1700	U	1700	U
1,2,4-Trichlorobenzene	3300	U	1700	U	1700	U
Naphthalene	180	J	330	J	320	J
Hexachlorobutadiene	3300	U	1700	U	1700	U
4-Chloro-3-methylphenol	3300	U	1700	U	1700	U
2-Methylnaphthalene	300	J	510	J	530	J
Hexachlorocyclopentadiene	10000	U	5100	U	5100	U
2,4,6-Trichlorophenol	8000	U	4100	U	4100	U
2-Chloronaphthalene	3300	U	1700	U	1700	U
Dimethylphthalate	3300	U	1700	U	1700	U
Acenaphthylene	390	J	490	J	800	J
2,6-Dinitrotoluene	1400	U	710	U	710	U
Acenaphthene	390	J	540	J	540	J
2,4-Dinitrophenol	8000	U	4100	U	4100	U
4-Nitrophenol	8000	U	4100	U	4100	U

Table-1
Summary of Detected Semi-volatile Compounds in Soil Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TS-01 09/11/00 ug/Kg		WVA-TS-X-1 09/11/00 ug/Kg		WVA-TS-X-1RE 09/11/00 ug/Kg	
Compound						
2,4-Dinitrotoluene	3300	U	1700	U	1700	U
Diethylphthalate	3300	U	1700	U	1700	U
4-Chlorophenyl-phenylether	3300	U	1700	U	1700	U
Fluorene	410	J	510	J	540	J
4,6-Dinitro-2-methylphenol	8000	U	4100	U	4100	U
N-Nitrosodiphenylamine (1)	3300	U	1700	U	1700	U
4-Bromophenyl-phenylether	3300	U	1700	U	1700	U
Hexachlorobenzene	3300	U	1700	U	1700	U
Pentachlorophenol	8000	U	4100	U	4100	U
Phenanthrene	4800		6900		6700	
Anthracene	1000	J	1500	J	1600	J
Di-n-butylphthalate	3300	U	1700	U	1700	U
Fluoranthene	5600		7000		7000	
Benzidine	20000	U	10000	U	10000	U
Pyrene	12000		13000		11000	
Butylbenzylphthalate	3300	U	1700	U	1700	U
3,3'-Dichlorobenzidine	3300	U	1700	U	1700	U
Benzo(a)anthracene	4100		4800		4900	
Chrysene	6500		9800		9300	
bis(2-Ethylhexyl)phthalate	1700	J	1600	J	1700	
Di-n-octylphthalate	3300	U	1700	U	1700	U
Benzo(b)fluoranthene	4200		6600		5900	
Benzo(k)fluoranthene	5500		5100		4700	
Benzo(a)pyrene	4200		5700		5400	
Indeno(1,2,3-cd)pyrene	2200	J	3500		2200	
Dibenzo(a,h)anthracene	840	J	1400	J	990	J
Benzo(g,h,i)perylene	1700	J	2600		1300	J

Table-1
Summary of Detected Metals in Soil Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID	WVA-TS-01		WVA-TS-X-1	
Date Sampled	09/11/00		09/11/00	
Units	mg/Kg		mg/Kg	
Compound				
Arsenic	31.5		34.0	
Barium	238.		538.	
Cadmium	5.8		3.7	
Chromium	64.6		98.8	
Lead	3210		2060	
Mercury	1.5	*	0.95	*
Selenium	15.8		8.1	
Silver	1.4	B	1.6	B

Table-1
Summary of Detected Cyanide Concentrations in Soil Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID	WVA-TS-01	WVA-TS-X-1
Date Sampled	09/11/00	09/11/00
Units	mg/Kg	mg/Kg
Compound		
Cyanide, Total	1.27 U	1.16 U

Table-1
Summary of Detected Pesticide Concentrations in Soil Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID	WVA-TS-01		WVA-TS-X-1	
Date Sampled	09/11/00		09/11/00	
Units	ug/Kg		ug/Kg	
Compound				
alpha-BHC	51.	U	40.	U
beta-BHC	220	U	180	U
delta-BHC	51.	U	40.	U
gamma-BHC (Lindane)	51.	U	40.	U
Heptachlor	51.	U	40.	U
Aldrin	15.	J	40.	U
Heptachlor Epoxide	51.	U	40.	U
Endosulfan I	51.	U	40.	U
Dieldrin	99.	U	79.	U
4,4'-DDE	110		79.	U
Endrin	99.	U	79.	U
Endosulfan II	99.	U	79.	U
4,4'-DDD	99.	U	79.	U
Endosulfan Sulfate	99.	U	79.	U
4,4'-DDT	100		54.	J
Methoxychlor	510	U	400	U
Endrin Ketone	99.	U	79.	U
Endrin Aldehyde	120	U	93.	U
alpha-Chlordane	15.	J	40.	U
gamma-Chlordane	13.	J	40.	U
Toxaphene	3300	U	2600	U

Table-1
Summary of Detected PCB Concentrations in Soil Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TS-01 09/11/00 ug/Kg		WVA-TS-X-1 09/11/00 ug/Kg		WVA-TL-01 09/11/00 ug/L		WVA-TL-X-2 09/11/00 ug/L	
Compound								
Aroclor-1016	200	U	79.	U	0.10	U	0.12	U
Aroclor-1221	400	U	160	U	0.23	U	0.28	U
Aroclor-1232	200	U	79.	U	0.24	U	0.29	U
Aroclor-1242	200	U	79.	U	0.18	U	0.22	U
Aroclor-1248	200	U	79.	U	0.10	U	0.12	U
Aroclor-1254	200	U	79.	U	0.10	U	0.12	U
Aroclor-1260	550		340		0.10	U	0.12	U

Table-1
Summary of Detected Volatile Organic Compounds in Groundwater Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TL-01 09/11/00 ug/L		WVA-TL-X-2 09/11/00 ug/L	
Compound				
Benzene	.7	U	.7	U
Bromodichloromethane	5	U	5	U
Bromoform	5	U	5	U
Bromomethane	5	U	5	U
2-Butanone	4	JB	5	JB
Carbon Disulfide	5	U	5	U
Carbon Tetrachloride	5	U	5	U
Chlorobenzene	5	U	5	U
Chloroethane	5	U	5	U
2-Chloroethylvinylether	5	U	5	U
Chloroform	5	U	5	U
Chloromethane	10	U	10	U
Dibromochloromethane	5	U	5	U
1,1-Dichloroethane	5	U	5	U
1,2-Dichloroethane	5	U	5	U
1,1-Dichloroethene	5	U	5	U
trans-1,2-Dichloroethene	5	U	5	U
cis-1,2-Dichloroethene	5	U	5	U
1,2-Dichloropropane	5	U	5	U
cis-1,3-Dichloropropene	5	U	5	U
trans-1,3-Dichloropropene	5	U	5	U
Ethylbenzene	5	U	5	U
Methylene Chloride	5	U	5	U
4-Methyl-2-Pentanone	12	U	12	U
1,1,2,2-Tetrachloroethane	5	U	5	U
Tetrachloroethene	5	U	5	U
Toluene	5	U	5	U
1,1,1-Trichloroethane	5	U	5	U
1,1,2-Trichloroethane	5	U	5	U
Trichloroethene	5	U	5	U
Trichlorofluoromethane	5	U	5	U
Vinyl Chloride	2	U	2	U
Xylene (total)	5	U	5	U

Table-1
Summary of Detected Semi-volatile Organic Compounds in Groundwater Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TL-01 09/11/00 ug/L		WVA-TL-X-2 09/11/00 ug/L	
Compound				
N-Nitrosodimethylamine	1	U	1	U
Phenol	1	U	1	U
bis(2-Chloroethyl)ether	3	U	3	U
2-Chlorophenol	3	U	3	U
1,3-Dichlorobenzene	5	U	5	U
1,4-Dichlorobenzene	5	U	5	U
1,2-Dichlorobenzene	5	U	5	U
bis(2-Chloroisopropyl)ether	10	U	10	U
N-Nitroso-di-n-propylamine	3	U	3	U
Hexachloroethane	10	U	10	U
Nitrobenzene	5	U	5	U
Isophorone	10	U	10	U
2-Nitrophenol	3	U	3	U
2,4-Dimethylphenol	2	U	3	U
bis(2-Chloroethoxy)methane	5	U	5	U
2,4-Dichlorophenol	3	U	3	U
1,2,4-Trichlorobenzene	5	U	5	U
Naphthalene	10	U	10	U
Hexachlorobutadiene	5	U	5	U
4-Chloro-3-methylphenol	2	U	2	U
2-Methylnaphthalene	10	U	10	U
Hexachlorocyclopentadiene	5	U	5	U
2,4,6-Trichlorophenol	3	U	3	U
2-Chloronaphthalene	5	U	5	U
Dimethylphthalate	10	U	10	U
Acenaphthylene	10	U	10	U
2,6-Dinitrotoluene	5	U	5	U
Acenaphthene	10	U	10	U
2,4-Dinitrophenol	16	U	16	U
4-Nitrophenol	8	U	8	U
2,4-Dinitrotoluene	5	U	5	U

Table-1
Summary of Detected Semi-volatile Organic Compounds in Groundwater Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TL-01 09/11/00 ug/L		WVA-TL-X-2 09/11/00 ug/L	
Compound				
Diethylphthalate	10	U	10	U
4-Chlorophenyl-phenylether	2	U	3	U
Fluorene	10	U	10	U
4,6-Dinitro-2-methylphenol	5	U	5	U
N-Nitrosodiphenylamine (1)	12	U	13	U
4-Bromophenyl-phenylether	10	U	10	U
Hexachlorobenzene	2	U	2	U
Pentachlorophenol	23	U	24	U
Phenanthrene	.4	J	10	U
Anthracene	10	U	10	U
Di-n-butylphthalate	10	U	10	U
Fluoranthene	.7	J	10	U
Benzidine	80	U	84	U
Pyrene	1	J	10	U
Butylbenzylphthalate	10	U	10	U
3,3'-Dichlorobenzidine	5	U	5	U
Benzo(a)anthracene	2	U	2	U
Chrysene	2		3	U
bis(2-Ethylhexyl)phthalate	10	U	10	U
Di-n-octylphthalate	10	U	10	U
Benzo(b)fluoranthene	2	U	3	U
Benzo(k)fluoranthene	3	U	3	U
Benzo(a)pyrene	2	U	2	U
Indeno(1,2,3-cd)pyrene	5	U	6	U
Dibenzo(a,h)anthracene	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U

Table-1
Summary of Detected Metals in Groundwater Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID	WVA-TL-01		WVA-TL-X-2	
Date Sampled	09/11/00		09/11/00	
Units	ug/L		ug/L	
Compound				
Arsenic	3.8	B	5.4	B
Barium	186.	B	179.	B
Cadmium	0.97	B	0.98	B
Chromium	12.7		12.2	
Lead	658.		602.	
Mercury	0.40		0.29	
Selenium	5.0	U	5.0	U
Silver	1.0	U	1.0	U

Table-1
Summary of Detected Cyanide Concentrations in Groundwater Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID	WVA-TL-01		WVA-TL-X-2	
Date Sampled	09/11/00		09/11/00	
Units	ug/L		ug/L	
Compound				
Cyanide, Total	10	U	10	U

Table-1
Summary of Detected Pesticide Concentrations in Groundwater Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TL-01 09/11/00 ug/L		WVA-TL-X-2 09/11/00 ug/L	
Compound				
alpha-BHC	0.050	U	0.061	U
beta-BHC	0.050	U	0.061	U
delta-BHC	0.050	U	0.061	U
gamma-BHC (Lindane)	0.050	U	0.061	U
Heptachlor	0.050	U	0.061	U
Aldrin	0.050	U	0.061	U
Heptachlor Epoxide	0.050	U	0.061	U
Endosulfan I	0.050	U	0.061	U
Dieldrin	0.10	U	0.12	U
4,4'-DDE	0.10	U	0.12	U
Endrin	0.10	U	0.12	U
Endosulfan II	0.10	U	0.12	U
4,4'-DDD	0.10	U	0.12	U
Endosulfan Sulfate	0.10	U	0.12	U
4,4'-DDT	0.10	U	0.12	U
Methoxychlor	0.50	U	0.61	U
Endrin Ketone	0.10	U	0.12	U
Endrin Aldehyde	0.10	U	0.12	U
alpha-Chlordane	0.050	U	0.061	U
gamma-Chlordane	0.050	U	0.061	U
Toxaphene	2.5	U	3.0	U

Table-1
Summary of Detected PCB Concentrations in Groundwater Samples
Building 110 Tank Area
Watervliet Arsenal
Watervliet, New York

Client ID Date Sampled Units	WVA-TS-01 09/11/00 ug/Kg		WVA-TS-X-1 09/11/00 ug/Kg		WVA-TL-01 09/11/00 ug/L		WVA-TL-X-2 09/11/00 ug/L	
Compound								
Aroclor-1016	200	U	79.	U	0.10	U	0.12	U
Aroclor-1221	400	U	160	U	0.23	U	0.28	U
Aroclor-1232	200	U	79.	U	0.24	U	0.29	U
Aroclor-1242	200	U	79.	U	0.18	U	0.22	U
Aroclor-1248	200	U	79.	U	0.10	U	0.12	U
Aroclor-1254	200	U	79.	U	0.10	U	0.12	U
Aroclor-1260	550		340		0.10	U	0.12	U

Arkansas Department of Environmental Quality
Hazardous Waste Division
P.O. Box 8913, Little Rock, AR 72219-8913
Telephone: (501) 682-0833

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
N,Y,7,2,1,3,8,2,0,8,4,0	20053		

3. Generator's Name and Mailing Address
WATERVLIET ARSENAL
ATTN: SIOWV-ISH WATERVLIET, NY 12189-4050
4. Generator's Phone (518) 266-5111

A. State Manifest Document Number: AR- 1083395
B. State Generator's ID: Same

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID	D. Transporter's Phone
WEST CENTRAL ENVIRONMENTAL	N,Y,D,0,0,0,7,0,8,2,7,1	H- 408	518-272-6891

7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID	F. Transporter's Phone
		H-	

9. Designated Facility Name and Site Address
ENSCO, INC.
309 AMERICAN CIRCLE
EL DORADO, AR 71730

10. US EPA ID Number: A,R,D,0,6,8,7,4,8,1,9,2

G. State Facility's ID:

H. Facility's Phone: 870-863-7173

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ WASTE PAINT RELATED MATERIAL 3 UN1263 PGIII (D001, F003, F005) ERG128	011	D,M	00550	G	F003 F002 F005 D001 D039 D040
b. RQ WASTE OXIDIZING SOLID, N.O.S. (POTASSIUM NITRATE, SODIUM NITRATE, SODIUM NITRITE) 5.1 UN1479 PGIII (D001, D005) ERG140	003	D,M	01280	P	D001 D005
c. RQ HAZARDOUS WASTE LIQUID, N.O.S. (HEPTACHLOR, ENDRIN) 9 NA3082 PGIII (D004,D005,D006,D007,D008,D009,D010,D011,D012,D030,D031) ERG171	003	D,M	00150	G	D004 D005 D006 D007 D008 D009
d.					

J. Additional Description for Materials Listed Above
11. a. Paint Debris 11. c. Separator Waste Also D010, D011, D012, D030, D031
11. b. Nitrate Salts

if no alternate TSDF, return to generator

K. Emergency Response Information:
Emergency Response: 518-266-5111

15. Special Handling Instructions and Additional Information
11. a. WMDS # 655129 Item # 001
11. b. WMDS # 655128 Item # 012
11. c. WMDS # 1357912 Item # 002
Load #: 137574
NYS Handling Codes: 11. a.-c. B
SP4400-97D-0059
ORDER # 0054
WCE JOB #: 22600-10-00

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled/placarded, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Arkansas state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Keith R. Shaw	Keith R. Shaw	10	31	00

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
John Pinon	John Pinon	10	31	00

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

NOTICE: THE ORIGINAL AND NOT LESS THAN TWO (2) COPIES MUST MOVE WITH THE HAZARDOUS WASTE SHIPMENT AND [illegible]

SEVERN TRENT SERVICES

October 11, 2000

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: 203 929 8140
Fax: 203 929 8142
www.stl-inc.com

Mr. Christopher Gaule
MALCOLM PIRNIE
15 Cornell Road
Latham, NY 12110

Dear Mr. Gaule :

Please find enclosed the analytical results of 28 sample(s) received at our laboratory on September 12, 2000. This report contains sections addressing the following information at a minimum:

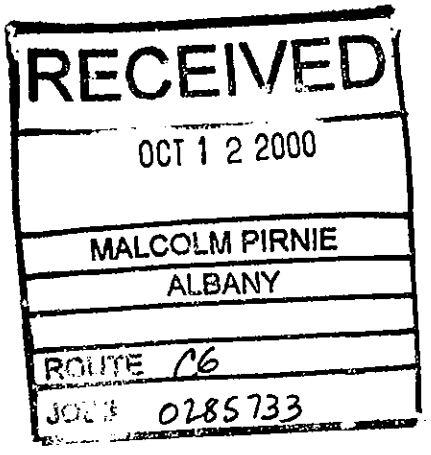
- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7000-1972A	Purchase Order #0285733
Project ID: WATERVLIET ARSENAL-TANK	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 929-8140 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.



Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

cc:

7000-1972A
MALCOLM PIRNIE

Case Narrative

Sample Receipt –The samples were received at 14°C. The client was notified, and the laboratory was instructed to proceed with the analyses.

Volatile Organics – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator/Archon 4552 autosampler interfaced with a Hewlett Packard Model 5971A/5972A GC/MS/DS.

Sample Calculation:

Sample ID –WVA-TS-X-1RE
Compound –2-Butanone

$$\frac{(149356)(250)}{(400786)(1.282)(5)(.41)} = 35.45 = 35 \text{ UG/KG.}$$

Sample WVA-TS-X-1 was analyzed twice due to results having surrogate recoveries out of criteria. Both analyses were reported since matrix interference was proven.

Sample WVA-TS-01 had surrogate recoveries out of criteria. The FMS and FMSD were analyzed with surrogates out of criteria also. These analyses were reported.

The percent recoveries for the following spike compounds were outside laboratory generated guidelines for sample WVA-S-01: methylene chloride, chlorobenzene, styrene, ethylbenzene, trichloroethene, toluene and xylene(total). The percent RPD values were also out for the following compounds: 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane and styrene.

The percent recoveries for the following spike compounds were outside laboratory generated guidelines for sample WVA-TL-01: ethylbenzene, xylene (total) and chlorobenzene.

The percent recoveries for the following spike compounds were outside criteria limits in the 020PPB_QCS files: 2-butanone, trichloroethene, trans-1,3-dichloropropene, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, acetone, 1,1,1-trichloroethane, benzene, toluene, ethylbenzene and xylene (total).

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. The spike recoveries for both water and soil cyanide analyses were under criteria limits; therefore, post-digestion spikes were analyzed. No other analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Samples WVA-TS-01, WVA-TS-01MS1, WVA-TS-01MSD1, and WVA-TS-X-1 required additional sodium sulfate and were filtered prior to concentration. These samples also had sediment present after concentration.

All samples required sulfur cleanup prior to analysis.

Results for alpha-Chlordane and Endosulfan I were reported from the DB-1701 column in LCS's, PBLK00QC1 and PBLK04QC1 due to coelution on the RTX-35 column.

Results for Endosulfan II and 4,4'-DDD were reported from the RTX-35 column in LCS's, PBLK00QC1 and PBLK04QC1 due to coelution on the DB-1701 column.

Results for alpha-Chlordane were reported from the DB-1701 column in samples WVA-TS-01, WVA-TS-01MS1, and WVA-TS-01MSD1 due to sample matrix interference on the RTX-35 column.

Results for Dieldrin and Endrin were reported from the DB-1701 column in WVA-TL-01MSB1. Results for these two compounds were higher on the RTX-35 column. These compounds were not present in the unspiked sample.

Surrogate recovery for Decachlorobiphenyl was below QC limits in WVA-TL-01, FB-091100, and WVA-TL-01MSD1.

The %RPD's for Dieldrin, Endrin, and 4,4'-DDT were outside of QC limits in WVA-TS-01MS1/MSD1.

Spike percent recovery for Aldrin was above QC limits in WVA-TS-01MSD1.

Spike percent recovery for Endrin was above QC limits in WVA-TS-01MS1.

The recovery of the spike compound, delta-BHC, was below QC limits in PBLK00QC1. The lab has routinely experienced problems with the degradation of this compound in the spike solution. Because of the degradation the solution is prepared more often than required. The solution has since been prepared from a new ampul.

The spike percent recovery for Endosulfan II was below QC limits in LCS, PBLK00QC1, at 79% recovery. No action was taken.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID – WVA-TS-01
Compound – 4,4'-DDT

$$\frac{(85346\text{area})(10000\text{ul})(10)}{(8096828\text{area/ng})(30.3\text{g})(0.33)(1\text{ul})} = 110 \text{ ug/Kg}$$

Polychlorinated Biphenyls (PCB's) - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Samples WVA-TS-01, WVA-TS-01MS2, WVA-TS-01MSD2, and WVA-TS-X-1 required additional sodium sulfate and were filtered prior to concentration. These samples also had sediment present after concentration.

All samples required acid and sulfur cleanup prior to analysis.

Surrogate recovery was below QC limits in WVA-TL-01, FB091100, WVA-TL-01MS2, and WVA-TL-01MSD2.

Spike percent recovery for Aroclor-1260 was below QC limits in WVA-TS-01MS2 and WVA-TS-01MSD2.

The %RPD for Aroclor-1260 was outside of QC limits in WVA-TS-01MS2/MSD2.

Results for the water samples were reported to 0.10 ug/L at the request of the client, for all Aroclor's that met the MDL. For compounds that the MDL did not meet the detection limit were reported to the MDL only.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID – WVA-TS-X-1
Compound – Aroclor-1260 peak 17.83

$$\frac{(354819\text{area})(100000\text{ul})}{(1036793\text{area/ng})(30.7\text{g})(0.41)(1\text{ul})} = 271 \text{ ug/Kg}$$

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3510C/3550B/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Sample WVA-TS-01 and the MS/MSD of the sample were analyzed at a 1:4 dilution due to the presence of high target compounds.

Samples WVA-TL-01 and WVA-TS-01 exhibited internal standard area suppression. The MS/MSD of the samples exhibited similar results confirming matrix interference. Samples WVA-TS-X-1 and FB091100 also exhibited internal standard area suppression. The samples were reanalyzed with similar results proving matrix interference. Both analyses are reported. The re-analysis is indicated by the suffix "RE".

Samples FB091100RE, WVA-TL-01MS, WVA-TS-X-1 and WVA-TS-X-1RE all had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

The spike recovery for the compound, pentachlorophenol, was outside recovery limits for SBLKVQFMS. The recoveries for n-nitrosodimethylamine and pentachlorophenol were outside the limits for SBLKWQFMS. The recoveries for 1,2,4-trichlorobenzene and pentachlorophenol were outside the limits for WVA-TL-01MS/MSD and WVA-TS-01MSB.

The %RPD for the compound, pyrene, was outside recovery limits for WVA-TL-01MS/MSD.

Sample WVA-TS-X-1 would not concentrate to a final volume of 1 ml, and so was brought to a final volume of 2 mls.

Sample Calculation:

Sample ID – WVA-TS-X-1
Compound - naphthalene

$$\frac{(64404)(40)(2000)(1.0)}{(745700)(.896)(2.0)(30.2)(.39)} = 330 \text{ ug/kg}$$

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A, 3050B/6010B; mercury-7470A, 7471A.

One "*" resulted from duplicate analysis of sample WVA-TS-01 for mercury.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

TABLE VO-1.0 Aqueous
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	WVA-TL-01	WVA-TL-X-2	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKON	001972A-03	001972A-04	
Method Blank I.D.	VBLKON	VBLKON	VBLKON	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	U	0.70
Bromodichloromethane	U	U	U	5.0
Bromoform	U	U	U	5.0
Bromomethane	U	U	U	5.0
2-Butanone	3J	4JB	5JB	10
Carbon Disulfide	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Chloroethane	U	U	U	5.0
2-Chloroethylvinylether	U	U	U	5.0
Chloroform	U	U	U	5.0
Chloromethane	U	U	U	10
Dibromochloromethane	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
1,1-Dichloroethene	U	U	U	5.0
trans-1,2-Dichloroethene	U	U	U	5.0
cis-1,2-Dichloroethene	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Methylene Chloride	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	12
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Tetrachloroethene	U	U	U	5.0
Toluene	U	U	U	5.0
1,1,1-Trichloroethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Trichlorofluoromethane	U	U	U	4.6
Vinyl Chloride	U	U	U	2.0
Xylene (total)	U	U	U	5.0
Date Received		09/12/00	09/12/00	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	09/15/00	09/15/00	09/15/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	FB091100	TB091100		Quant. Limits with no Dilution
Lab Sample I.D.	001972A-05	001972A-06		
Method Blank I.D.	VBLKON	VBLKON		
Quant. Factor	1.00	1.00		
Benzene	U	U		0.70
Bromodichloromethane	U	U		5.0
Bromoform	U	U		5.0
Bromomethane	U	U		5.0
2-Butanone	3JB	3JB		10
Carbon Disulfide	U	U		5.0
Carbon Tetrachloride	U	U		5.0
Chlorobenzene	U	U		5.0
Chloroethane	U	U		5.0
2-Chloroethylvinylether	U	U		5.0
Chloroform	U	U		5.0
Chloromethane	U	U		10
Dibromochloromethane	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethane	U	U		5.0
1,1-Dichloroethene	U	U		5.0
trans-1,2-Dichloroethene	U	U		5.0
cis-1,2-Dichloroethene	U	U		5.0
1,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
trans-1,3-Dichloropropene	U	U		5.0
Ethylbenzene	U	U		5.0
Methylene Chloride	2J	2J		5.0
4-Methyl-2-Pentanone	U	U		12
1,1,2,2-Tetrachloroethane	U	U		5.0
Tetrachloroethene	U	U		5.0
Toluene	U	U		5.0
1,1,1-Trichloroethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Trichloroethene	U	U		5.0
Trichlorofluoromethane	U	U		4.6
Vinyl Chloride	U	U		2.0
Xylene (total)	U	U		5.0
Date Received	09/12/00	09/12/00		
Date Extracted	N/A	N/A		
Date Analyzed	09/15/00	09/15/00		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.2
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	WVA-TL-01 FMS 001972A-03 FMS	WVA-TL-01 FMSD 001972A-03 FMSD	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKOO	VBLKOO	VBLKOO	
Method Blank I.D.	VBLKOO	VBLKOO	VBLKOO	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	48X	47X	0.70
Bromodichloromethane	U	48X	47X	5.0
Bromoform	U	58X	55X	5.0
Bromomethane	U	44X	42X	5.0
2-Butanone	4J	79BX	82BX	10
Carbon Disulfide	U	55X	54X	5.0
Carbon Tetrachloride	U	43X	41X	5.0
Chlorobenzene	U	43X	41X	5.0
Chloroethane	U	45X	45X	5.0
2-Chloroethylvinylether	U	U	U	5.0
Chloroform	U	52X	51X	5.0
Chloromethane	U	49X	43X	10
Dibromochloromethane	U	53X	51X	5.0
1,1-Dichloroethane	U	54X	52X	5.0
1,2-Dichloroethane	U	56X	55X	5.0
1,1-Dichloroethene	U	49X	48X	5.0
trans-1,2-Dichloroethene	U	50	50	5.0
cis-1,2-Dichloroethene	U	53	52	5.0
1,2-Dichloropropane	U	43X	42X	5.0
cis-1,3-Dichloropropene	U	46X	45X	5.0
trans-1,3-Dichloropropene	U	54X	52X	5.0
Ethylbenzene	U	40X	39X	5.0
Methylene Chloride	3J	53BX	52BX	5.0
4-Methyl-2-Pentanone	U	66X	67X	12
1,1,2,2-Tetrachloroethane	U	68X	67X	5.0
Tetrachloroethene	U	36X	36X	5.0
Toluene	U	40X	39X	5.0
1,1,1-Trichloroethane	U	48X	47X	5.0
1,1,2-Trichloroethane	U	57X	56X	5.0
Trichloroethene	U	44X	43X	5.0
Trichlorofluoromethane	U	57	54	4.6
Vinyl Chloride	U	49X	46X	2.0
Xylene (total)	U	120X	120X	5.0
Date Received		09/12/00	09/12/00	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	09/18/00	09/18/00	09/18/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.3
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	WVA-TS-01		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKT7	001972A-01		
Method Blank I.D.	VBLKT7	VBLKT7		
Quant. Factor	1.00	3.03		
Benzene	U	U		5.0
Bromodichloromethane	U	U		5.0
Bromoform	U	U		5.0
Bromomethane	U	U		10
2-Butanone	U	20J		10
Carbon Disulfide	1J	U		5.0
Carbon Tetrachloride	U	U		5.0
Chlorobenzene	U	U		5.0
Chloroethane	U	U		10
2-Chloroethylvinylether	U	U		10
Chloroform	U	U		5.0
Chloromethane	U	U		10
Dibromochloromethane	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethane	U	U		5.0
1,1-Dichloroethene	U	U		5.0
trans-1,2-Dichloroethene	U	U		5.0
cis-1,2-Dichloroethene	U	U		5.0
1,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
trans-1,3-Dichloropropene	U	U		10
Ethylbenzene	U	U		5.0
Methylene Chloride	4J	16JB		10
4-Methyl-2-Pentanone	U	U		10
1,1,2,2-Tetrachloroethane	U	U		5.0
Tetrachloroethene	U	U		5.0
Toluene	U	U		5.0
1,1,1-Trichloroethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Trichloroethene	U	U		5.0
Trichlorofluoromethane	U	U		10
Vinyl Chloride	U	U		10
Xylene (total)	U	U		5.0
Date Received		09/12/00		
Date Extracted	N/A	N/A		
Date Analyzed	09/14/00	09/14/00		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE VO-1.4
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	WVA-TS-01 FMS	WVA-TS-01 FMSD	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKT8	001972A-01 FMS	001972A-01 FMSD	
Method Blank I.D.	VBLKT8	VBLKT8	VBLKT8	
Quant. Factor	1.00	3.03	3.03	
Benzene	U	130X	120X	5.0
Bromodichloromethane	U	140X	120X	5.0
Bromoform	U	120X	100X	5.0
Bromomethane	U	160X	150X	10
2-Butanone	U	170X	150X	10
Carbon Disulfide	1J	93BX	96BX	5.0
Carbon Tetrachloride	U	110X	100X	5.0
Chlorobenzene	U	110X	90X	5.0
Chloroethane	U	170X	160X	10
2-Chloroethylvinylether	U	170	120	10
Chloroform	U	130X	120X	5.0
Chloromethane	U	120X	120X	10
Dibromochloromethane	U	130X	120X	5.0
1,1-Dichloroethane	U	140X	130X	5.0
1,2-Dichloroethane	U	140X	130X	5.0
1,1-Dichloroethene	U	130X	120X	5.0
trans-1,2-Dichloroethene	U	120	110	5.0
cis-1,2-Dichloroethene	U	120	120	5.0
1,2-Dichloropropane	U	130X	130X	5.0
cis-1,3-Dichloropropene	U	120X	110X	5.0
trans-1,3-Dichloropropene	U	120X	110X	10
Ethylbenzene	U	94X	78X	5.0
Methylene Chloride	6J	110BX	100BX	10
4-Methyl-2-Pentanone	U	200X	150X	10
1,1,2,2-Tetrachloroethane	U	160X	120X	5.0
Tetrachloroethene	U	84X	74X	5.0
Toluene	U	120X	100X	5.0
1,1,1-Trichloroethane	U	120X	120X	5.0
1,1,2-Trichloroethane	U	140X	120X	5.0
Trichloroethene	U	110X	98X	5.0
Trichlorofluoromethane	U	130	130	10
Vinyl Chloride	U	140X	130X	10
Xylene (total)	U	270X	230X	5.0
Date Received		09/12/00	09/12/00	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	09/15/00	09/15/00	09/15/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.5 Soil
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	WVA-TS-X-1	WVA-TS-X-1 RE		Quant. Limits with no Dilution
Lab Sample I.D.	001972A-02	001972A-02RE		
Method Blank I.D.	VBLKT8	VBLKT8		
Quant. Factor	2.44	2.44		
Benzene	U	U		5.0
Bromodichloromethane	U	U		5.0
Bromoform	U	U		5.0
Bromomethane	U	U		10
2-Butanone	U	U		10
Carbon Disulfide	2JB	2JB		5.0
Carbon Tetrachloride	U	U		5.0
Chlorobenzene	U	U		5.0
Chloroethane	U	U		10
2-Chloroethylvinylether	U	U		10
Chloroform	U	2J		5.0
Chloromethane	U	U		10
Dibromochloromethane	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethane	U	U		5.0
1,1-Dichloroethene	U	U		5.0
trans-1,2-Dichloroethene	U	U		5.0
cis-1,2-Dichloroethene	U	U		5.0
1,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
trans-1,3-Dichloropropene	U	U		10
Ethylbenzene	U	U		5.0
Methylene Chloride	11JB	10JB		10
4-Methyl-2-Pentanone	U	U		10
1,1,2,2-Tetrachloroethane	U	U		5.0
Tetrachloroethene	U	U		5.0
Toluene	1J	U		5.0
1,1,1-Trichloroethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Trichloroethene	U	U		5.0
Trichlorofluoromethane	U	U		10
Vinyl Chloride	U	U		10
Xylene (total)	U	U		5.0
Date Received	09/12/00	09/12/00		
Date Extracted	N/A	N/A		
Date Analyzed	09/15/00	09/15/00		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0 Aqueous
7000-1972A
MALCOLM PIRNIE page 1 of 2
MISCELLANEOUS SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	WVA-TL-01	WVA-TL-01 MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKVQ	001972A-03	001972A-03MS	
Method Blank I.D.	SBLKVQ	SBLKVQ	SBLKVQ	
Quant. Factor	1.00	1.00	1.03	
N-Nitrosodimethylamine	U	U	U	1.0
Phenol	.3J	U	32BX	1.0
bis(2-Chloroethyl)ether	U	U	U	3.0
2-Chlorophenol	U	U	80X	3.1
1,3-Dichlorobenzene	U	U	U	5.0
1,4-Dichlorobenzene	U	U	40X	5.0
1,2-Dichlorobenzene	U	U	U	5.0
bis(2-Chloroisopropyl)ether	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	44X	3.3
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	5.0
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	3.1
2,4-Dimethylphenol	U	U	U	2.5
bis(2-Chloroethoxy)methane	U	U	U	5.0
2,4-Dichlorophenol	U	U	U	2.8
1,2,4-Trichlorobenzene	U	U	60X	5.0
Naphthalene	U	U	U	10
Hexachlorobutadiene	U	U	U	5.0
4-Chloro-3-methylphenol	U	U	83EX	2.0
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	5.0
2,4,6-Trichlorophenol	U	U	U	2.9
2-Chloronaphthalene	U	U	U	5.0
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	5.0
Acenaphthene	U	U	50X	10
2,4-Dinitrophenol	U	U	U	16
4-Nitrophenol	U	U	49X	7.5
2,4-Dinitrotoluene	U	U	39X	5.0
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	2.5
Fluorene	U	U	U	10
4,6-Dinitro-2-methylphenol	U	U	U	4.6
Date Received		09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/19/00	09/19/00	09/19/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0 Aqueous
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	WVA-TL-01	WVA-TL-01 MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKVQ	001972A-03	001972A-03MS	
Method Blank I.D.	SBLKVQ	SBLKVQ	SBLKVQ	
Quant. Factor	1.00	1.00	1.03	
N-Nitrosodiphenylamine (1)	U	U	U	12
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	2.4
Pentachlorophenol	U	U	160EX	23
Phenanthrene	U	.4J	U	10
Anthracene	U	U	U	10
Di-n-butylphthalate	U	U	U	10
Fluoranthene	U	.7J	U	10
Benzidine	U	U	U	80
Pyrene	U	1J	30X	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	5.0
Benzo(a)anthracene	U	U	U	1.7
Chrysene	U	2	5	2.5
bis(2-Ethylhexyl)phthalate	U	U	U	10
Di-n-octylphthalate	U	U	U	10
Benzo(b)fluoranthene	U	U	U	2.5
Benzo(k)fluoranthene	U	U	U	3.3
Benzo(a)pyrene	U	U	3	1.8
Indeno(1,2,3-cd)pyrene	U	U	U	5.4
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/19/00	09/19/00	09/19/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	WVA-TL-01 MSD 001972A-03 MSD SBLKVQ 1.03	WVA-TL-X-2 001972A-04 SBLKVQ 1.05	FB091100 001972A-05 SBLKVQ 1.09	Quant. Limits with no Dilution
N-Nitrosodimethylamine	U	U	U	1.0
Phenol	32BX	U	U	1.0
bis(2-Chloroethyl)ether	U	U	U	3.0
2-Chlorophenol	82X	U	U	3.1
1,3-Dichlorobenzene	U	U	U	5.0
1,4-Dichlorobenzene	39X	U	U	5.0
1,2-Dichlorobenzene	U	U	U	5.0
bis(2-Chloroisopropyl)ether	U	U	U	10
N-Nitroso-di-n-propylamine	50X	U	U	3.3
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	5.0
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	3.1
2,4-Dimethylphenol	U	U	U	2.5
bis(2-Chloroethoxy)methane	U	U	U	5.0
2,4-Dichlorophenol	U	U	U	2.8
1,2,4-Trichlorobenzene	53X	U	U	5.0
Naphthalene	U	U	U	10
Hexachlorobutadiene	U	U	U	5.0
4-Chloro-3-methylphenol	79X	U	U	2.0
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	5.0
2,4,6-Trichlorophenol	U	U	U	2.9
2-Chloronaphthalene	U	U	U	5.0
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	5.0
Acenaphthene	42X	U	U	10
2,4-Dinitrophenol	U	U	U	16
4-Nitrophenol	46X	U	U	7.5
2,4-Dinitrotoluene	39X	U	U	5.0
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	2.5
Fluorene	U	U	U	10
4,6-Dinitro-2-methylphenol	U	U	U	4.6
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/19/00	09/19/00	09/21/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	WVA-TL-01 MSD 001972A-03 MSD SBLKVQ 1.03	WVA-TL-X-2 001972A-04 SBLKVQ 1.05	FB091100 001972A-05 SBLKVQ 1.09	Quant. Limits with no Dilution
N-Nitrosodiphenylamine (1)	U	U	U	12
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	2.4
Pentachlorophenol	160EX	U	U	23
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Di-n-butylphthalate	U	U	U	10
Fluoranthene	U	U	.4J	10
Benzidine	U	U	U	80
Pyrene	52X	U	1J	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	5.0
Benzo(a)anthracene	U	U	U	1.7
Chrysene	U	U	U	2.5
bis(2-Ethylhexyl)phthalate	U	U	U	10
Di-n-octylphthalate	U	U	U	10
Benzo(b)fluoranthene	U	U	U	2.5
Benzo(k)fluoranthene	U	U	U	3.3
Benzo(a)pyrene	U	U	U	1.8
Indeno(1,2,3-cd)pyrene	U	U	U	5.4
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/19/00	09/19/00	09/21/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	FB091100 RE 001972A-05RE SBLKVQ 1.09			Quant. Limits with no Dilution
N-Nitrosodimethylamine	U			1.0
Phenol	U			1.0
bis(2-Chloroethyl)ether	U			3.0
2-Chlorophenol	U			3.1
1,3-Dichlorobenzene	U			5.0
1,4-Dichlorobenzene	U			5.0
1,2-Dichlorobenzene	U			5.0
bis(2-Chloroisopropyl)ether	U			10
N-Nitroso-di-n-propylamine	U			3.3
Hexachloroethane	U			10
Nitrobenzene	U			5.0
Isophorone	U			10
2-Nitrophenol	U			3.1
2,4-Dimethylphenol	U			2.5
bis(2-Chloroethoxy)methane	U			5.0
2,4-Dichlorophenol	U			2.8
1,2,4-Trichlorobenzene	U			5.0
Naphthalene	U			10
Hexachlorobutadiene	U			5.0
4-Chloro-3-methylphenol	U			2.0
2-Methylnaphthalene	U			10
Hexachlorocyclopentadiene	U			5.0
2,4,6-Trichlorophenol	U			2.9
2-Chloronaphthalene	U			5.0
Dimethylphthalate	U			10
Acenaphthylene	U			10
2,6-Dinitrotoluene	U			5.0
Acenaphthene	U			10
2,4-Dinitrophenol	U			16
4-Nitrophenol	U			7.5
2,4-Dinitrotoluene	U			5.0
Diethylphthalate	U			10
4-Chlorophenyl-phenylether	U			2.5
Fluorene	U			10
4,6-Dinitro-2-methylphenol	U			4.6
Date Received	09/12/00			
Date Extracted	09/15/00			
Date Analyzed	09/26/00			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	FB091100 RE 001972A-05RE SBLKVQ 1.09			Quant. Limits with no Dilution
N-Nitrosodiphenylamine (1)	U			12
4-Bromophenyl-phenylether	U			10
Hexachlorobenzene	U			2.4
Pentachlorophenol	U			23
Phenanthrene	U			10
Anthracene	U			10
Di-n-butylphthalate	U			10
Fluoranthene	.3J			10
Benzidine	U			80
Pyrene	1J			10
Butylbenzylphthalate	U			10
3,3'-Dichlorobenzidine	U			5.0
Benzo(a)anthracene	U			1.7
Chrysene	U			2.5
bis(2-Ethylhexyl)phthalate	5J			10
Di-n-octylphthalate	U			10
Benzo(b)fluoranthene	U			2.5
Benzo(k)fluoranthene	U			3.3
Benzo(a)pyrene	U			1.8
Indeno(1,2,3-cd)pyrene	U			5.4
Dibenzo(a,h)anthracene	U			10
Benzo(g,h,i)perylene	U			10
Date Received	09/12/00			
Date Extracted	09/15/00			
Date Analyzed	09/26/00			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3 Soil
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	WVA-TS-01	WVA-TS-01 MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKWQ	001972A-01	001972A-01MS	
Method Blank I.D.	SBLKWQ	SBLKWQ	SBLKWQ	
Quant. Factor	1.00	10.0	9.93	
N-Nitrosodimethylamine	U	U	U	100
Phenol	U	U	6200X	11
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	6300X	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	2300JX	330
1,2-Dichlorobenzene	U	U	U	330
bis(2-Chloroisopropyl)ether	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	3300X	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	3000JX	330
Naphthalene	U	180J	270J	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	4800X	330
2-Methylnaphthalene	U	300J	520J	330
Hexachlorocyclopentadiene	U	U	U	1000
2,4,6-Trichlorophenol	U	U	U	800
2-Chloronaphthalene	U	U	U	330
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	390J	490J	330
2,6-Dinitrotoluene	U	U	U	140
Acenaphthene	U	390J	3400X	330
2,4-Dinitrophenol	U	U	U	800
4-Nitrophenol	U	U	8100X	800
2,4-Dinitrotoluene	U	U	2400JX	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	410J	450J	330
4,6-Dinitro-2-methylphenol	U	U	U	800
Date Received		09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/21/00	09/26/00	09/26/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	WVA-TS-01	WVA-TS-01 MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKWQ	001972A-01	001972A-01MS	
Method Blank I.D.	SBLKWQ	SBLKWQ	SBLKWQ	
Quant. Factor	1.00	10.0	9.93	
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	4100JX	800
Phenanthrene	U	4800	4200	330
Anthracene	U	1000J	950J	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	U	5600	4500	330
Benzidine	U	U	U	2000
Pyrene	U	12000	16000X	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	330
Benzo(a)anthracene	U	4100	3400	100
Chrysene	U	6500	5600	330
bis(2-Ethylhexyl)phthalate	U	1700J	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	4200	2800J	330
Benzo(k)fluoranthene	U	5500	5100	330
Benzo(a)pyrene	U	4200	3600	330
Indeno(1,2,3-cd)pyrene	U	2200J	2200J	330
Dibenzo(a,h)anthracene	U	840J	1000J	330
Benzo(g,h,i)perylene	U	1700J	1600J	330
Date Received		09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/21/00	09/26/00	09/26/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4 Soil
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	WVA-TS-01 MSD	WVA-TS-X-1	WVA-TS-X-1 RE	Quant. Limits with no Dilution
Lab Sample I.D.	001972A-01 MSD	001972A-02	001972A-02RE	
Method Blank I.D.	SBLKWQ	SBLKWQ	SBLKWQ	
Quant. Factor	10.0	5.09	5.09	
N-Nitrosodimethylamine	U	U	U	100
Phenol	6000X	130	150	11
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	5900X	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	1600JX	U	U	330
1,2-Dichlorobenzene	U	U	U	330
bis(2-Chloroisopropyl)ether	U	U	U	330
N-Nitroso-di-n-propylamine	3300X	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	2800JX	U	U	330
Naphthalene	160J	330J	320J	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	5300X	U	U	330
2-Methylnaphthalene	300J	510J	530J	330
Hexachlorocyclopentadiene	U	U	U	1000
2,4,6-Trichlorophenol	U	U	U	800
2-Chloronaphthalene	U	U	U	330
Dimethylphthalate	U	U	U	330
Acenaphthylene	350J	490J	800J	330
2,6-Dinitrotoluene	U	U	U	140
Acenaphthene	3400X	540J	540J	330
2,4-Dinitrophenol	U	U	U	800
4-Nitrophenol	7000JX	U	U	800
2,4-Dinitrotoluene	2900JX	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	310J	510J	540J	330
4,6-Dinitro-2-methylphenol	U	U	U	800
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/26/00	09/20/00	09/21/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4 Soil
7000-1972A
MALCOLM PIRNIE
MISCELLANEOUS SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	WVA-TS-01 MSD	WVA-TS-X-1	WVA-TS-X-1 RE	Quant. Limits with no Dilution
Lab Sample I.D.	001972A-01 MSD	001972A-02	001972A-02RE	
Method Blank I.D.	SBLKWQ	SBLKWQ	SBLKWQ	
Quant. Factor	10.0	5.09	5.09	
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	1600JX	U	U	800
Phenanthrene	3400	6900	6700	330
Anthracene	800J	1500J	1600J	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	3400	7000	7000	330
Benzidine	U	U	U	2000
Pyrene	11000X	13000	11000	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	330
Benzo(a)anthracene	2800	4800	4900	100
Chrysene	4700	9800	9300	330
bis(2-Ethylhexyl)phthalate	860J	1600J	1700	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	2400J	6600	5900	330
Benzo(k)fluoranthene	3700	5100	4700	330
Benzo(a)pyrene	2800J	5700	5400	330
Indeno(1,2,3-cd)pyrene	1600J	3500	2200	330
Dibenzo(a,h)anthracene	640J	1400J	990J	330
Benzo(g,h,i)perylene	1000J	2600	1300J	330
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/26/00	09/20/00	09/21/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.0
7000-1972A
MALCOLM PIRNIE
8081A PESTICIDES

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	WVA-TL-01	WVA-TL-01 MS1	Quant. Limits with no Dilution
Lab Sample I.D.	091500-B02	001972A-03	001972A-03 MS1	
Method Blank I.D.	PBLK04	PBLK04	PBLK04	
Quant. Factor	1.00	1.00	1.11	
alpha-BHC	U	U	U	0.050
beta-BHC	U	U	U	0.050
delta-BHC	U	U	U	0.050
gamma-BHC (Lindane)	U	U	0.43X	0.050
Heptachlor	U	U	0.41X	0.050
Aldrin	U	U	0.41X	0.050
Heptachlor Epoxide	U	U	U	0.050
Endosulfan I	U	U	U	0.050
Dieldrin	U	U	0.98X	0.10
4,4'-DDE	U	U	0.082J	0.10
Endrin	U	U	1.2X	0.10
Endosulfan II	U	U	0.068J	0.10
4,4'-DDD	U	U	U	0.10
Endosulfan Sulfate	U	U	U	0.10
4,4'-DDT	U	U	0.83X	0.10
Methoxychlor	U	U	U	0.50
Endrin Ketone	U	U	U	0.10
Endrin Aldehyde	U	U	U	0.10
alpha-Chlordane	U	U	U	0.050
gamma-Chlordane	U	U	U	0.050
Toxaphene	U	U	U	2.5
Date Received		09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/22/00	09/22/00	09/23/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.1
7000-1972A
MALCOLM PIRNIE
8081A PESTICIDES

Aqueous

All values are ug/L.

Client Sample I.D.	WVA-TL-01 MSB1	WVA-TL-01 MSD1	WVA-TL-X-2	Quant. Limits with no Dilution
Lab Sample I.D.	001972A-03 MSB1	001972A-03 MSD1	001972A-04	
Method Blank I.D.	PBLK04	PBLK04	PBLK04	
Quant. Factor	1.00	1.11	1.22	
alpha-BHC	U	U	U	0.050
beta-BHC	U	U	U	0.050
delta-BHC	U	U	U	0.050
gamma-BHC (Lindane)	0.53X	0.46X	U	0.050
Heptachlor	0.52X	0.40X	U	0.050
Aldrin	0.52X	0.41X	U	0.050
Heptachlor Epoxide	U	U	U	0.050
Endosulfan I	U	U	U	0.050
Dieldrin	1.1X	1.0X	U	0.10
4,4'-DDE	0.085J	0.082J	U	0.10
Endrin	1.2X	1.2X	U	0.10
Endosulfan II	U	U	U	0.10
4,4'-DDD	0.027J	U	U	0.10
Endosulfan Sulfate	U	U	U	0.10
4,4'-DDT	1.1X	0.90X	U	0.10
Methoxychlor	U	U	U	0.50
Endrin Ketone	0.015J	U	U	0.10
Endrin Aldehyde	U	U	U	0.10
alpha-Chlordane	U	U	U	0.050
gamma-Chlordane	U	U	U	0.050
Toxaphene	U	U	U	2.5
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/22/00	09/23/00	09/23/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.2
7000-1972A
MALCOLM PIRNIE
8081A PESTICIDES

Aqueous

All values are ug/L.

Client Sample I.D.	FB091100	PBLK04 QC1 091500-B02 QC1		Quant. Limits with no Dilution
Lab Sample I.D.	001972A-05	PBLK04		
Method Blank I.D.	PBLK04			
Quant. Factor	1.18	1.00		
alpha-BHC	U	0.17X		0.050
beta-BHC	U	0.23X		0.050
delta-BHC	U	0.078X		0.050
gamma-BHC (Lindane)	U	0.18X		0.050
Heptachlor	U	0.16X		0.050
Aldrin	U	0.14X		0.050
Heptachlor Epoxide	U	0.20X		0.050
Endosulfan I	U	0.20X		0.050
Dieldrin	U	0.19X		0.10
4,4'-DDE	U	0.20X		0.10
Endrin	U	0.20X		0.10
Endosulfan II	U	0.19X		0.10
4,4'-DDD	U	0.18X		0.10
Endosulfan Sulfate	U	0.17X		0.10
4,4'-DDT	U	0.18X		0.10
Methoxychlor	U	0.20JX		0.50
Endrin Ketone	U	0.22X		0.10
Endrin Aldehyde	U	0.15X		0.10
alpha-Chlordane	U	0.20X		0.050
gamma-Chlordane	U	0.19X		0.050
Toxaphene	U	U		2.5
Date Received	09/12/00			
Date Extracted	09/15/00	09/15/00		
Date Analyzed	09/23/00	09/22/00		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.3
7000-1972A
MALCOLM PIRNIE
8081A PESTICIDES

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank 091300-B06 PBLK00 1.00	WVA-TS-01 001972A-01 PBLK00 30.0	WVA-TS-01 MS1 001972A-01 MS1 PBLK00 30.1	Quant. Limits with no Dilution
alpha-BHC	U	U	U	1.7
beta-BHC	U	U	U	7.5
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	U	U	41.JX	1.7
Heptachlor	U	U	46.JX	1.7
Aldrin	U	15.J	74.X	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	U	U	120X	3.3
4,4'-DDE	U	110	140	3.3
Endrin	U	U	160X	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	130	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	U	100	200X	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	U	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	15.J	7.1J	1.7
gamma-Chlordane	U	13.J	9.8J	1.7
Toxaphene	U	U	U	110
Date Received		09/12/00	09/12/00	
Date Extracted	09/13/00	09/13/00	09/13/00	
Date Analyzed	09/19/00	09/19/00	09/20/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.4
7000-1972A
MALCOLM PIRNIE
8081A PESTICIDES

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	WVA-TS-01 MSB1	WVA-TS-01 MSD1	WVA-TS-X-1	Quant. Limits with no Dilution
Lab Sample I.D.	001972A-01 MSB1	001972A-01 MSD1	001972A-02	
Method Blank I.D.	PBLK00	PBLK00	PBLK00	
Quant. Factor	1.00	30.0	23.8	
alpha-BHC	U	U	U	1.7
beta-BHC	U	U	U	7.5
delta-BHC	U	U	U	1.7
gamma-BHC (Lindane)	16.X	28.JX	U	1.7
Heptachlor	18.X	34.JX	U	1.7
Aldrin	20.X	89.X	U	1.7
Heptachlor Epoxide	U	U	U	1.7
Endosulfan I	U	U	U	1.7
Dieldrin	39.X	68.JX	U	3.3
4,4'-DDE	2.4J	U	U	3.3
Endrin	42.X	98.JX	U	3.3
Endosulfan II	U	U	U	3.3
4,4'-DDD	U	U	U	3.3
Endosulfan Sulfate	U	U	U	3.3
4,4'-DDT	35.X	130X	54.J	3.3
Methoxychlor	U	U	U	17.
Endrin ketone	0.85J	U	U	3.3
Endrin aldehyde	U	U	U	3.9
alpha-Chlordane	U	6.7J	U	1.7
gamma-Chlordane	U	U	U	1.7
Toxaphene	U	U	U	110
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/13/00	09/13/00	09/13/00	
Date Analyzed	09/19/00	09/20/00	09/20/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-1.5 Soil
7000-1972A
MALCOLM PIRNIE
8081A PESTICIDES

All values are ug/Kg dry weight basis.

Client Sample I.D.	PBLK00			
Lab Sample I.D.	QC1			
Method Blank I.D.	091300-B06			
Quant. Factor	QC1			Quant. Limits with no Dilution
	PBLK00			
	1.00			
alpha-BHC	5.4X			1.7
beta-BHC	6.8JX			7.5
delta-BHC	2.2X			1.7
gamma-BHC (Lindane)	5.7X			1.7
Heptachlor	6.2X			1.7
Aldrin	6.1X			1.7
Heptachlor Epoxide	6.4X			1.7
Endosulfan I	6.5X			1.7
Dieldrin	6.5X			3.3
4,4'-DDE	6.4X			3.3
Endrin	6.4X			3.3
Endosulfan II	5.3X			3.3
4,4'-DDD	4.0X			3.3
Endosulfan Sulfate	5.4X			3.3
4,4'-DDT	6.1X			3.3
Methoxychlor	6.2JX			17.
Endrin ketone	7.1X			3.3
Endrin aldehyde	4.3X			3.9
alpha-Chlordane	6.6X			1.7
gamma-Chlordane	6.4X			1.7
Toxaphene	U			110
Date Received				
Date Extracted	09/13/00			
Date Analyzed	09/19/00			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-2.0 Aqueous
7000-1972A
MALCOLM PIRNIE
POLYCHLORINATED BIPHENYL'S

All values are ug/L.

Client Sample I.D.	Method Blank	WVA-TL-01	WVA-TL-01 MS2	Quant. Limits with no Dilution
Lab Sample I.D.	091500-B02	001972A-03	001972A-03 MS2	
Method Blank I.D.	PBLK04	PBLK04	PBLK04	
Quant. Factor	1.00	1.00	1.00	
Aroclor-1016	U	U	U	0.10
Aroclor-1221	U	U	U	0.23
Aroclor-1232	U	U	U	0.24
Aroclor-1242	U	U	U	0.18
Aroclor-1248	U	U	U	0.10
Aroclor-1254	U	U	U	0.10
Aroclor-1260	U	U	1.3X	0.10
Date Received		09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/20/00	09/21/00	09/21/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-2.1
7000-1972A
MALCOLM PIRNIE
POLYCHLORINATED BIPHENYL'S

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	WVA-TL-01 MSB2 001972A-03 MSB2 PBLK04 1.00	WVA-TL-01 MSD2 001972A-03 MSD2 PBLK04 1.11	WVA-TL-X-2 001972A-04 PBLK04 1.22	Quant. Limits with no Dilution
Aroclor-1016	U	U	U	0.10
Aroclor-1221	U	U	U	0.23
Aroclor-1232	U	U	U	0.24
Aroclor-1242	U	U	U	0.18
Aroclor-1248	U	U	U	0.10
Aroclor-1254	U	U	U	0.10
Aroclor-1260	2.3X	1.4X	U	0.10
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/15/00	09/15/00	09/15/00	
Date Analyzed	09/20/00	09/21/00	09/21/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE GC-2.2
7000-1972A
MALCOLM PIRNIE
POLYCHLORINATED BIPHENYL'S

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	FB091100 001972A-05 PBLK04 1.18	PBLK04 QC2 091500-B02 QC2 PBLK04 1.00		Quant. Limits with no Dilution
Aroclor-1016	U	U		0.10
Aroclor-1221	U	U		0.23
Aroclor-1232	U	U		0.24
Aroclor-1242	U	4.3X		0.18
Aroclor-1248	U	U		0.10
Aroclor-1254	U	U		0.10
Aroclor-1260	U	4.0X		0.10
Date Received	09/12/00			
Date Extracted	09/15/00	09/15/00		
Date Analyzed	09/21/00	09/20/00		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-2.3 Soil
7000-1972A
MALCOLM PIRNIE
POLYCHLORINATED BIPHENYL'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	WVA-TS-01	WVA-TS-01 MS2	Quant. Limits with no Dilution
Lab Sample I.D.	091300-B06	001972A-01	001972A-01 MS2	
Method Blank I.D.	PBLK00	PBLK00	PBLK00	
Quant. Factor	1.00	6.00	5.90	
Aroclor-1016	U	U	U	33.
Aroclor-1221	U	U	U	67.
Aroclor-1232	U	U	U	33.
Aroclor-1242	U	U	U	33.
Aroclor-1248	U	U	U	33.
Aroclor-1254	U	U	U	33.
Aroclor-1260	U	550	700X	33.
Date Received		09/12/00	09/12/00	
Date Extracted	09/13/00	09/13/00	09/13/00	
Date Analyzed	09/20/00	09/20/00	09/20/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-2.4 Soil
7000-1972A
MALCOLM PIRNIE
POLYCHLORINATED BIPHENYL'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	WVA-TS-01 MSB2	WVA-TS-01 MSD2	WVA-TS-X-1	Quant. Limits with no Dilution
Lab Sample I.D.	001972A-01 MSB2	001972A-01 MSD2	001972A-02	
Method Blank I.D.	PBLK00	PBLK00	PBLK00	
Quant. Factor	1.00	5.96	2.38	
Aroclor-1016	U	U	U	33.
Aroclor-1221	U	U	U	67.
Aroclor-1232	U	U	U	33.
Aroclor-1242	U	U	U	33.
Aroclor-1248	U	U	U	33.
Aroclor-1254	U	U	U	33.
Aroclor-1260	91.X	620X	340	33.
Date Received	09/12/00	09/12/00	09/12/00	
Date Extracted	09/13/00	09/13/00	09/13/00	
Date Analyzed	09/20/00	09/20/00	09/20/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE GC-2.5
7000-1972A
MALCOLM PIRNIE
POLYCHLORINATED BIPHENYL'S

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	PBLK00 QC2 091300-B06 QC2 PBLK00 1.00			Quant. Limits with no Dilution
Aroclor-1016	U			33.
Aroclor-1221	U			67.
Aroclor-1232	U			33.
Aroclor-1242	180X			33.
Aroclor-1248	U			33.
Aroclor-1254	U			33.
Aroclor-1260	180X			33.
Date Received				
Date Extracted	09/13/00			
Date Analyzed	09/20/00			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE AS-1.0
7000-1972A
MALCOLM PIRNIE
RCRA METALS

Aqueous

All values are ug/L.

Client Sample I.D.	WVA-TL-01	WVA-TL-01 D	WVA-TL-01 S	WVA-TL-X-2
Lab Sample I.D.	001972A-03	001972A-03D	001972A-03S	001972A-04
Arsenic	3.8B	3.8B	41.5	5.4B
Barium	186.B	189.B	2120	179.B
Cadmium	0.97B	1.1B	5.7	0.98B
Chromium	12.7	12.0	201.	12.2
Lead	658.	670.	676.	602.
Mercury	0.40	0.33	1.4	0.29
Selenium	5.0U	5.0U	7.8	5.0U
Silver	1.0U	1.0U	48.6	1.0U

See Appendix for qualifier definitions

TABLE AS-1.1
7000-1972A
MALCOLM PIRNIE
RCRA METALS

Aqueous

All values are ug/L.

Client Sample I.D.	FB091100			
Lab Sample I.D.	001972A-05			
Arsenic	2.5U			
Barium	0.50U			
Cadmium	0.50U			
Chromium	1.0U			
Lead	2.0U			
Mercury	0.10U			
Selenium	5.0U			
Silver	1.0U			

See Appendix for qualifier definitions

TABLE AS-1.2
7000-1972A
MALCOLM PIRNIE
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	WVA-TS-01	WVA-TS-01 D	WVA-TS-01 S	WVA-TS-X-1
Lab Sample I.D.	001972A-01	001972A-01D	001972A-01S	001972A-02
Arsenic	31.5	28.0	45.6	34.0
Barium	238.	237.	1140	538.
Cadmium	5.8	6.0	8.1	3.7
Chromium	64.6	63.7	157.	98.8
Lead	3210	3170	2630	2060
Mercury	1.5*	0.86*	1.2	0.95*
Selenium	15.8	15.7	15.9	8.1
Silver	1.4B	1.4B	23.3	1.6B

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TS-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): SOIL Lab Sample ID: 001972A-01

% Solids: 37.5 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.27	U	mg/Kg		L

Comments:

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TS-X-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): SOIL Lab Sample ID: 001972A-02

% Solids: 40.9 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.16	U	mg/Kg		L

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TL-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-03

% Solids: 0 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	10.0	U	ug/L	N	L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TL-X-2

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-04

% Solids: 0 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	10.0	U	ug/L		L

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FB091100

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-05

% Solids: 0 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	10.0	U	ug/L		L

Comments:

FORM I - WC

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ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

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INORGANICS APPENDIX

C - Concentration qualifiers

U - Indicates analyte was not detected at method reporting limit.

B - Indicates analyte result between IDL and contract required detection limit (CRDL)

Q - QC qualifiers

E - Reported value is estimated because of the presence of interference

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the method of standard additions (MSA)

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

M - Method codes

P - ICP

A - Flame AA

F - Furnace AA

CV - Cold vapor AA (manual)

C - Cyanide

NR - Not Required

NC - Not Calculated as per protocols

STATE CERTIFICATIONS

In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for the STL-Connecticut laboratory are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

STL-Connecticut
Certification Summary (as of April 2000)

Connecticut	Department of Health Services	Drinking Water, Wastewater	PH-0497
Maine	Department of Health and Environmental Services	Drinking Water, Wastewater/Solid, Hazardous Waste	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste	10602
North Carolina	Division of Environmental Management	Wastewater	388
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	A43
Washington	Department of Ecology	Wastewater/Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater	998355710

7000-1972A
MALCOLM PIRNIE
SAMPLE SUMMARY

CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
WVA-TS-01	001972A-01	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01D	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MS	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MS1	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MS2	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MSB	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MSB1	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MSB2	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MSD	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MSD1	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01MSD2	SOIL	09/11/00	09/12/00
WVA-TS-01	001972A-01S	SOIL	09/11/00	09/12/00
WVA-TS-X-1	001972A-02	SOIL	09/11/00	09/12/00
WVA-TL-01	001972A-03	WATER	09/11/00	09/12/00
WVA-TL-01	001972A-03D	WATER	09/11/00	09/12/00
WVA-TL-01	001972A-03MS	WATER	09/11/00	09/12/00
WVA-TS-01	001972A-03MS1	WATER	09/11/00	09/12/00
WVA-TS-01	001972A-03MS2	WATER	09/11/00	09/12/00
WVA-TL-01	001972A-03MSB	WATER	09/11/00	09/12/00
WVA-TS-01	001972A-03MSB1	WATER	09/11/00	09/12/00
WVA-TS-01	001972A-03MSB2	WATER	09/11/00	09/12/00
WVA-TL-01	001972A-03MSD	WATER	09/11/00	09/12/00
WVA-TS-01	001972A-03MSD1	WATER	09/11/00	09/12/00
WVA-TS-01	001972A-03MSD2	WATER	09/11/00	09/12/00
WVA-TL-01	001972A-03S	WATER	09/11/00	09/12/00
WVA-TL-X-2	001972A-04	WATER	09/11/00	09/12/00
FB091100	001972A-05	WATER	09/11/00	09/12/00
TB091100	001972A-06	WATER	09/11/00	09/12/00

Page:1

STL CT ANALYTICAL SUMMARY

Client ID: FB091100, TB091100, WVA-TL-01, WVA-TL-X-2, WVA-TS-01, WVA-TS-X-1
Job Number: 7000-1972A

Date: 10/12/100

Qty	Matrix	Analysis	Description
1	None	DISK	Diskette Prep.
5	SOIL	BNA-N8270C-MISC	Miscellaneous Semi-V
3	SOIL	BNA-N8270C-PP	Priority Pollutant S
2	SOIL	BNA-N8270C-PP	Priority Pollutant S
2	SOIL	CNT-N9012	Total Cyanide
2	SOIL	CNT-N9012	Total Cyanide
2	SOIL	MET-NSW846-RCRA	RCRA Metals
2	SOIL	MET-NSW846-RCRA	RCRA Metals
3	SOIL	PCB-N8082	PCB's
2	SOIL	PCB-N8082	PCB's
3	SOIL	PST-N8081A-TCL	TCL Pesticides
2	SOIL	PST-N8081A-TCL	TCL Pesticides
5	SOIL	VOA-N8260B-MISC	TCL Volatile Organic
3	SOIL	VOA-N8260B-TCL	TCL Volatile Organic
2	SOIL	VOA-N8260B-TCL	TCL Volatile Organic
6	WATER	BNA-N8270C-MISC	Miscellaneous Semi-V
3	WATER	BNA-N8270C-PP	Priority Pollutant S
3	WATER	BNA-N8270C-PP	Priority Pollutant S
2	WATER	CNT-N9012	Total Cyanide
3	WATER	CNT-N9012	Total Cyanide
2	WATER	MET-NSW846-RCRA	RCRA Metals
3	WATER	MET-NSW846-RCRA	RCRA Metals
1	WATER	PCB-8082	PCB's
3	WATER	PCB-8082	PCB's
2	WATER	PCB-N8082	PCB's
3	WATER	PST-8081A-TCL	TCL Pesticides
3	WATER	PST-N8081A-TCL	TCL Pesticides
7	WATER	VOA-N8260B-MISC	Miscellaneous Volati

STL CT ANALYTICAL SUMMARY

Client ID: FB091100, TB091100, WVA-TL-01, WVA-TL-X-2, WVA-TS-01, WVA-TS-X-1
Job Number: 7000-1972A

Date: 10/12/100

Qty	Matrix	Analysis	Description
3	WATER	VOA-N8260B-TCL	TCL Volatile Organic
4	WATER	VOA-N8260B-TCL	TCL Volatile Organic

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SAMPLE DATA SUMMARY PACKAGE

Client:	MALCOLM PIRNIE
Project ID	WATERVLIET ARSENAL-TANK
P.O.	0285733
SDG #:	A1972
STL ID:	7000-1972A

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7000-1972A
MALCOLM PIRNIE

Case Narrative

Sample Receipt –The samples were received at 14°C. The client was notified, and the laboratory was instructed to proceed with the analyses.

Volatile Organics – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator/Archon 4552 autosampler interfaced with a Hewlett Packard Model 5971A/5972A GC/MS/DS.

Sample Calculation:

Sample ID –WVA-TS-X-1RE
Compound –2-Butanone

$$\frac{(149356)(250)}{(400786)(1.282)(5)(.41)} = 35.45 = 35 \text{ UG/KG.}$$

Sample WVA-TS-X-1 was analyzed twice due to results having surrogate recoveries out of criteria. Both analyses were reported since matrix interference was proven.

Sample WVA-TS-01 had surrogate recoveries out of criteria. The FMS and FMSD were analyzed with surrogates out of criteria also. These analyses were reported.

The percent recoveries for the following spike compounds were outside laboratory generated guidelines for sample WVA-S-01: methylene chloride, chlorobenzene, styrene, ethylbenzene, trichloroethene, toluene and xylene(total). The percent RPD values were also out for the following compounds: 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane and styrene.

The percent recoveries for the following spike compounds were outside laboratory generated guidelines for sample WVA-TL-01: ethylbenzene, xylene (total) and chlorobenzene.

The percent recoveries for the following spike compounds were outside criteria limits in the 020PPB_QCS files: 2-butanone, trichloroethene, trans-1,3-dichloropropene, 4-methyl-2-pentanone, 2-hexanone, 1,1,2,2-tetrachloroethane, acetone, 1,1,1-trichloroethane, benzene, toluene, ethylbenzene and xylene (total).

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. The spike recoveries for both water and soil cyanide analyses were under criteria limits; therefore, post-digestion spikes were analyzed. No other analytical problems were encountered and all holding times were met.

Analyte	Method	Reference
Cyanide – Total	9012	1

References:

1. Test Methods for the Evaluation of Solid Wastes, SW846, 3rd ed., 1986.

Pesticides - Pesticide samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8081A. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Samples WVA-TS-01, WVA-TS-01MS1, WVA-TS-01MSD1, and WVA-TS-X-1 required additional sodium sulfate and were filtered prior to concentration. These samples also had sediment present after concentration.

All samples required sulfur cleanup prior to analysis.

Results for alpha-Chlordane and Endosulfan I were reported from the DB-1701 column in LCS's, PBLK00QC1 and PBLK04QC1 due to coelution on the RTX-35 column.

Results for Endosulfan II and 4,4'-DDD were reported from the RTX-35 column in LCS's, PBLK00QC1 and PBLK04QC1 due to coelution on the DB-1701 column.

Results for alpha-Chlordane were reported from the DB-1701 column in samples WVA-TS-01, WVA-TS-01MS1, and WVA-TS-01MSD1 due to sample matrix interference on the RTX-35 column.

Results for Dieldrin and Endrin were reported from the DB-1701 column in WVA-TL-01MSB1. Results for these two compounds were higher on the RTX-35 column. These compounds were not present in the unspiked sample.

Surrogate recovery for Decachlorobiphenyl was below QC limits in WVA-TL-01, FB-091100, and WVA-TL-01MSD1.

The %RPD's for Dieldrin, Endrin, and 4,4'-DDT were outside of QC limits in WVA-TS-01MS1/MSD1.

Spike percent recovery for Aldrin was above QC limits in WVA-TS-01MSD1.

Spike percent recovery for Endrin was above QC limits in WVA-TS-01MS1.

The recovery of the spike compound, delta-BHC, was below QC limits in PBLK00QC1. The lab has routinely experienced problems with the degradation of this compound in the spike solution. Because of the degradation the solution is prepared more often than required. The solution has since been prepared from a new ampul.

The spike percent recovery for Endosulfan II was below QC limits in LCS, PBLK00QC1, at 79% recovery. No action was taken.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID – WVA-TS-01
Compound – 4,4'-DDT

$$\frac{(85346\text{area})(10000\text{ul})(10)}{(8096828\text{area/ng})(30.3\text{g})(0.33)(1\text{ul})} = 110 \text{ ug/Kg}$$

Polychlorinated Biphenyls (PCB's) - PCB samples were extracted and analyzed by GC/ECD using guidance provided in Methods 3510C/3550B/8082. The instrumentation used was a Hewlett-Packard Gas Chromatograph equipped with an Electron Capture Detector (Ni63).

Samples WVA-TS-01, WVA-TS-01MS2, WVA-TS-01MSD2, and WVA-TS-X-1 required additional sodium sulfate and were filtered prior to concentration. These samples also had sediment present after concentration.

All samples required acid and sulfur cleanup prior to analysis.

Surrogate recovery was below QC limits in WVA-TL-01, FB091100, WVA-TL-01MS2, and WVA-TL-01MSD2.

Spike percent recovery for Aroclor-1260 was below QC limits in WVA-TS-01MS2 and WVA-TS-01MSD2.

The %RPD for Aroclor-1260 was outside of QC limits in WVA-TS-01MS2/MSD2.

Results for the water samples were reported to 0.10 ug/L at the request of the client, for all Aroclor's that met the MDL. For compounds that the MDL did not meet the detection limit were reported to the MDL only.

Manual integrations were performed if required, and any affected peaks were designated with an "MM" on the area report in the column titled "Code". Manual integrations were initialed by the analyst that performed the integration.

Sample Calculation:

Sample ID – WVA-TS-X-1
Compound – Aroclor-1260 peak 17.83

$$\frac{(354819\text{area})(100000\text{ul})}{(1036793\text{area/ng})(30.7\text{g})(0.41)(1\text{ul})} = 271 \text{ ug/Kg}$$

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS according to NYSDEC '95 Protocols using guidance provided in Methods 3510C/3550B/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

Sample WVA-TS-01 and the MS/MSD of the sample were analyzed at a 1:4 dilution due to the presence of high target compounds.

Samples WVA-TL-01 and WVA-TS-01 exhibited internal standard area suppression. The MS/MSD of the samples exhibited similar results confirming matrix interference. Samples WVA-TS-X-1 and FB091100 also exhibited internal standard area suppression. The samples were reanalyzed with similar results proving matrix interference. Both analyses are reported. The re-analysis is indicated by the suffix "RE".

Samples FB091100RE, WVA-TL-01MS, WVA-TS-X-1 and WVA-TS-X-1RE all had one surrogate out of recovery criteria, but within laboratory sample acceptance criteria.

The spike recovery for the compound, pentachlorophenol, was outside recovery limits for SBLKVQFMS. The recoveries for n-nitrosodimethylamine and pentachlorophenol were outside the limits for SBLKWQFMS. The recoveries for 1,2,4-trichlorobenzene and pentachlorophenol were outside the limits for WVA-TL-01MS/MSD and WVA-TS-01MSB.

The %RPD for the compound, pyrene, was outside recovery limits for WVA-TL-01MS/MSD.

Sample WVA-TS-X-1 would not concentrate to a final volume of 1 ml, and so was brought to a final volume of 2 mls.

Sample Calculation:

Sample ID – WVA-TS-X-1
Compound - naphthalene

$$\frac{(64404)(40)(2000)(1.0)}{(745700)(.896)(2.0)(30.2)(.39)} = 330 \text{ ug/kg}$$

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A, 3050B/6010B; mercury-7470A, 7471A.

One "*" resulted from duplicate analysis of sample WVA-TS-01 for mercury.

No other problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C. Curran
Laboratory Manager

Oct 11, 2000
Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
WVA-TS-01	001972A-01	X	X		X	X	
WVA-TS-01	001972A-01D					X	
WVA-TS-01	001972A-01MS	X	X				
WVA-TS-01	001972A-01MS1				X		
WVA-TS-01	001972A-01MS2				X		
WVA-TS-01	001972A-01MSB	X	X				
WVA-TS-01	001972A-01MSB1				X		
WVA-TS-01	001972A-01MSB2				X		
WVA-TS-01	001972A-01MSD	X	X				
WVA-TS-01	001972A-01MSD1				X		
WVA-TS-01	001972A-01MSD2				X		
WVA-TS-01	001972A-01S					X	
WVA-TS-X-1	001972A-02	X	X		X	X	
WVA-TL-01	001972A-03	X	X		X	X	
WVA-TL-01	001972A-03D					X	
WVA-TL-01	001972A-03MS	X	X				
WVA-TS-01	001972A-03MS1				X		
WVA-TS-01	001972A-03MS2				X		
WVA-TL-01	001972A-03MSB	X	X				
WVA-TS-01	001972A-03MSB1				X		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
WVA-TS-01	001972A-03MSB2				X		
WVA-TL-01	001972A-03MSD	X	X				
WVA-TS-01	001972A-03MSD1				X		
WVA-TS-01	001972A-03MSD2				X		
WVA-TL-01	001972A-03S					X	
WVA-TL-X-2	001972A-04	X	X		X	X	
FB091100	001972A-05	X	X		X	X	
TB091100	001972A-06	X					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
001972A-01	SOIL	09/11/00	09/12/00	N/A	09/14/00
001972A-02	SOIL	09/11/00	09/12/00		09/15/00
001972A-03	WATER	09/11/00	09/12/00		09/15/00
001972A-04	WATER	09/11/00	09/12/00		
001972A-05	WATER	09/11/00	09/12/00		
001972A-06	WATER	09/11/00	09/12/00		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
001972A-01, MS, MSD, MSB	SOIL	09/11/00	09/12/00	9-15-00	9-26, 9-26, 9-26, 9-26 ~~10-4~~
001972A-02, RE	SOIL	09/11/00	09/12/00	↓	9-20-00, 9-21-00
001972A-03, MS, MSD, MSB	WATER	09/11/00	09/12/00		9-19, 9-19, 9-19, 10-4
001972A-04	WATER	09/11/00	09/12/00		9-19-00
001972A-05, RE	WATER	09/11/00	09/12/00	↓	9-21-00, 9-26-00

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
SEMIVOLATILE (BNA)
ANALYSES

LABORATORY SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILIARY CLEANUP	DIL/CONC FACTOR
001972A-01, MS, MSD, MSB	SOIL	NY 8270C	SONC	NA	4.0, 4.0, 4.0, 1.0
001972A-02, RE	SOIL	↓	↓	↓	1.0
001972A-03, MS, MSD, MSB	WATER		SEPF		↓
001972A-04	WATER	↓	↓	↓	
001972A-05, RE	WATER				

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDES/~~PCB~~
ANALYSES

h 10/5/00

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
001972A-01	SOIL	09/11/00	09/12/00	9/13/00	9/19/00
001972A-02	SOIL	09/11/00	09/12/00	↓	9/20/00
001972A-03	WATER	09/11/00	09/12/00	9/15/00	9/22/00
001972A-04	WATER	09/11/00	09/12/00	↓	9/23/00
001972A-05	WATER	09/11/00	09/12/00	↓	↓

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
~~PESTICIDES~~/PCB
MS/MSD ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
001972A-01	SOIL	09/11/00	09/12/00	9/13/00	9/20/00
001972A-02	SOIL	09/11/00	09/12/00	↓	↓
001972A-03	WATER	09/11/00	09/12/00	9/15/00	9/21/00
001972A-04	WATER	09/11/00	09/12/00	↓	↓
001972A-05	WATER	09/11/00	09/12/00	↓	↓

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Analyzed
001972A-01	SOIL	MET-NSW846-RCRA	09/12/00	9/28, 10/5/00
001972A-02	SOIL	MET-NSW846-RCRA	09/12/00	
001972A-03	WATER	MET-NSW846-RCRA	09/12/00	
001972A-04	WATER	MET-NSW846-RCRA	09/12/00	
001972A-05	WATER	MET-NSW846-RCRA	09/12/00	

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKON	93	105	111		0
02	020 ppbQCS	98	101	109		0
03	VBLKON	93	105	111		0
04	FB091100	94	103	109		0
05	TB091100	100	103	112		0
06	WVA-TL-01	98	103	111		0
07	WVA-TL-X-2	96	101	111		0
08	VBLKOO	90	108	104		0
09	020 ppbQCS	89	104	105		0
10	VBLKOO	90	108	104		0
11	VA-TL-01FMSB	91	104	104		0
12	WVA-TL-01FMS	89	107	107		0
13	VA-TL-01FMSD	90	106	106		0
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QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)
SMC2 (BFB) = Bromofluorobenzene (86-115)
SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKT7	99	98	110		0
02	WVA-TS-01	68*	54*	87		2
03	VBLKT8	103	101	113		0
04	VA-TS-01FMSB	108	106	118		0
05	WVA-TS-X-1	78*	63*	91		2
06	WVA-TS-01FMS	78*	59*	86		2
07	VA-TS-01FMSD	68*	52*	86		2
08	WVA-TS-X-1RE	82	66*	92		1
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QC LIMITS

SMC1 (TOL) = Toluene-d8 (81-117)
SMC2 (BFB) = Bromofluorobenzene (74-121)
SMC3 (DCE) = 1,2-Dichloroethane-d4 (70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3-ASP

SOIL VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
Chloromethane	150	0	120	80	32-191
Bromomethane	150	0	160	107	34-190
Vinyl Chloride	150	0	140	93	23-192
Chloroethane	150	0	170	113	49-222
Methylene Chloride	150	16	110	63 *	64-158
Acetone	150	80	200	80	0-398
Carbon Disulfide	150	0	93	62	55-133
Vinyl Acetate	150	0	100	67	0-163
1,1-Dichloroethene	150	0	130	87	79-152
1,1-Dichloroethane	150	0	140	93	83-134
1,2-Dichloroethene (total)	300	0	240	80	82-128
Chloroform	150	0	130	87	65-126
1,2-Dichloroethane	150	0	140	93	50-132
2-Butanone	150	20	170	100	0-393
1,1,1-Trichloroethane	150	0	120	80	44-139
Carbon Tetrachloride	150	0	110	73	34-137
Bromodichloromethane	150	0	140	93	59-130
1,2-Dichloropropane	150	0	130	87	84-161
cis-1,3-Dichloropropene	150	0	120	80	72-116
Trichloroethene	150	0	110	73	72-129
Dibromochloromethane	150	0	130	87	57-129
1,1,2-Trichloroethane	150	0	140	93	72-136
Benzene	150	0	130	87	83-130
trans-1,3-Dichloropropene	150	0	120	80	59-117
Bromoform	150	0	120	80	36-144
4-Methyl-2-Pentanone	150	0	200	133	39-214
2-Hexanone	150	0	160	107	83-256
Tetrachloroethene	150	0	84	56	41-143
Toluene	150	0	120	80	77-126
1,1,2,2-Tetrachloroethane	150	6	160	103	58-167

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 1 out of 68 outside limits

COMMENTS: _____

PAM
09/20/00

3-ASP

SOIL VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
Chlorobenzene	150	0	110	73	82-126
Ethylbenzene	150	0	94	63	79-131
Styrene	150	0	99	66	81-121
Xylene (total)	450	0	270	60	81-126
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Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0/2 out of 68 outside limits

COMMENTS: _____

FORM III VOA-2 8260

09/26/10

3-ASP

SOIL VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chloromethane	150	120	80	0	20	32-191
Bromomethane	150	150	100	7	20	34-190
Vinyl Chloride	150	130	87	7	20	23-192
Chloroethane	150	160	107	5	20	49-222
Methylene Chloride	150	100	56	12	20	64-158
Acetone	150	200	80	0	20	0-398
Carbon Disulfide	150	96	64	3	20	55-133
Vinyl Acetate	150	86	57	16	20	0-163
1,1-Dichloroethene	150	120	80	8	20	79-152
1,1-Dichloroethane	150	130	87	7	20	83-134
1,2-Dichloroethene (total)	300	230	77	4	20	82-128
Chloroform	150	120	80	8	20	65-126
1,2-Dichloroethane	150	130	87	7	20	50-132
2-Butanone	150	150	87	14	20	0-393
1,1,1-Trichloroethane	150	120	80	0	20	44-139
Carbon Tetrachloride	150	100	67	9	20	34-137
Bromodichloromethane	150	120	80	15	20	59-130
1,2-Dichloropropane	150	130	87	0	20	84-161
cis-1,3-Dichloropropene	150	110	73	9	20	72-116
Trichloroethene	150	98	65	12	20	72-129
Dibromochloromethane	150	120	80	8	20	57-129
1,1,2-Trichloroethane	150	120	80	15	20	72-136
Benzene	150	120	80	8	20	83-130
trans-1,3-Dichloropropene	150	110	73	9	20	59-117
Bromoform	150	100	67	18	20	36-144
4-Methyl-2-Pentanone	150	150	100	28*	20	39-214
2-Hexanone	150	130	87	21*	20	83-256
Tetrachloroethene	150	74	49	13	20	41-143
Toluene	150	100	67	18	20	77-126
1,1,2,2-Tetrachloroethane	150	120	76	30*	20	58-167

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

RPD: 4 out of 34 outside limits
Spike Recovery: ~~0~~ 2 out of 68 outside limits
COMMENTS: _____

PAM 09/26/00

3-ASP

SOIL VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chlorobenzene	150	90	60	20	20	82-126
Ethylbenzene	150	78	52	19	20	79-131
Styrene	150	80	53	22*	20	81-121
Xylene (total)	450	230	51	16	20	81-126
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Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

RPD: 4 out of 34 outside limits

Spike Recovery: 0\2 out of 68 outside limits

COMMENTS: _____

_____

FORM III VOA-2 8260

PAM 09/24/00

3-ASP

WATER VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Chloromethane	50	0	49	98	22-140
Bromomethane	50	0	44	88	30-135
Vinyl Chloride	50	0	49	98	30-148
Chloroethane	50	0	45	90	28-174
Methylene Chloride	50	0	53	106	58-141
Acetone	50	4	56	104	0-262
Carbon Disulfide	50	0	55	110	30-148
Vinyl Acetate	50	0	82	164	0-190
1,1-Dichloroethene	50	0	49	98	63-134
1,1-Dichloroethane	50	0	54	108	73-130
1,2-Dichloroethene (total)	100	0	100	100	73-127
Chloroform	50	0	52	104	73-129
1,2-Dichloroethane	50	0	56	112	68-133
2-Butanone	50	4	79	150	21-215
1,1,1-Trichloroethane	50	0	48	96	68-134
Carbon Tetrachloride	50	0	43	86	53-132
Bromodichloromethane	50	0	48	96	71-129
1,2-Dichloropropane	50	0	43	86	74-137
cis-1,3-Dichloropropene	50	0	46	92	73-119
Trichloroethene	50	0	44	88	66-121
Dibromochloromethane	50	0	53	106	59-136
1,1,2-Trichloroethane	50	0	57	114	75-131
Benzene	50	0	48	96	73-124
trans-1,3-Dichloropropene	50	0	54	108	71-117
Bromoform	50	0	58	116	53-133
4-Methyl-2-Pentanone	50	0	66	132	42-163
2-Hexanone	50	0	74	148	17-202
Tetrachloroethene	50	0	36	72	68-124
Toluene	50	0	40	80	72-123
1,1,2,2-Tetrachloroethane	50	0	68	136	64-147

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 05 out of 68 outside limits

COMMENTS: _____

Pam 09/26/00

3-ASP

WATER VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Chlorobenzene	50	0	43	86	83-121
Ethylbenzene	50	0	40	80	86-121
Styrene	50	0	43	86	77-126
Xylene (total)	150	0	120	80	82-122
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Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 05 out of 68 outside limits

COMMENTS: _____

PAM
09/26/00

3-ASP

WATER VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chloromethane	50	43	86	13	20	22-140
Bromomethane	50	42	84	5	20	30-135
Vinyl Chloride	50	46	92	6	20	30-148
Chloroethane	50	45	90	0	20	28-174
Methylene Chloride	50	52	104	2	20	58-141
Acetone	50	58	108	4	20	0-262
Carbon Disulfide	50	54	108	2	20	30-148
Vinyl Acetate	50	81	162	1	20	0-190
1,1-Dichloroethene	50	48	96	2	20	63-134
1,1-Dichloroethane	50	52	104	4	20	73-130
1,2-Dichloroethene (total)	100	100	100	0	20	73-127
Chloroform	50	51	102	2	20	73-129
1,2-Dichloroethane	50	55	110	2	20	68-133
2-Butanone	50	82	156	4	20	21-215
1,1,1-Trichloroethane	50	47	94	2	20	68-134
Carbon Tetrachloride	50	41	82	5	20	53-132
Bromodichloromethane	50	47	94	2	20	71-129
1,2-Dichloropropane	50	42	84	2	20	74-137
cis-1,3-Dichloropropene	50	45	90	2	20	73-119
Trichloroethene	50	43	86	2	20	66-121
Dibromochloromethane	50	51	102	4	20	59-136
1,1,2-Trichloroethane	50	56	112	2	20	75-131
Benzene	50	47	94	2	20	73-124
trans-1,3-Dichloropropene	50	52	104	4	20	71-117
Bromoform	50	55	110	5	20	53-133
4-Methyl-2-Pentanone	50	67	134	2	20	42-163
2-Hexanone	50	77	154	4	20	17-202
Tetrachloroethene	50	36	72	0	20	68-124
Toluene	50	39	78	2	20	72-123
1,1,2,2-Tetrachloroethane	50	67	134	2	20	64-147

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

RPD: 0 out of 34 outside limits
Spike Recovery: 0 out of 68 outside limits
COMMENTS: _____

DAM 09/20/00

3-ASP

WATER VOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chlorobenzene	50	41	82	5	20	83-121
Ethylbenzene	50	39	78	2	20	86-121
Styrene	50	41	82	5	20	77-126
Xylene (total)	150	120	80	0	20	82-122
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Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

RPD: 0 out of 34 outside limits

Spike Recovery: 85 out of 68 outside limits

COMMENTS: _____

AM 02/26/10

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
Chloromethane	50	0	40	80	32-191
Bromomethane	50	0	56	112	34-190
Vinyl Chloride	50	0	50	100	23-192
Chloroethane	50	0	58	116	49-222
Methylene Chloride	50	6	38	64	64-158
Acetone	50	6	35	58	0-398
Carbon Disulfide	50	1	50	98	55-133
Vinyl Acetate	50	0	53	106	0-163
1,1-Dichloroethene	50	0	53	106	79-152
1,1-Dichloroethane	50	0	50	100	83-134
1,2-Dichloroethene (total)	100	0	110	110	82-128
Chloroform	50	0	54	108	65-126
1,2-Dichloroethane	50	0	53	106	50-132
2-Butanone	50	0	49	98	0-393
1,1,1-Trichloroethane	50	0	55	110	44-139
Carbon Tetrachloride	50	0	54	108	34-137
Bromodichloromethane	50	0	55	110	59-130
1,2-Dichloropropane	50	0	49	98	84-161
cis-1,3-Dichloropropene	50	0	51	102	72-116
Trichloroethene	50	0	51	102	72-129
Dibromochloromethane	50	0	53	106	57-129
1,1,2-Trichloroethane	50	0	52	104	72-136
Benzene	50	0	50	100	83-130
trans-1,3-Dichloropropene	50	0	51	102	59-117
Bromoform	50	0	53	106	36-144
4-Methyl-2-Pentanone	50	0	48	96	39-214
2-Hexanone	50	0	44	88	83-256
Tetrachloroethene	50	0	51	102	41-143
Toluene	50	0	48	96	77-126
1,1,2,2-Tetrachloroethane	50	0	48	96	58-167

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 34 outside limits

COMMENTS: _____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
Chlorobenzene	50	0	49	98	82-126
Ethylbenzene	50	0	49	98	79-131
Styrene	50	0	48	96	81-121
Xylene (total)	150	0	150	100	81-126
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Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 34 outside limits

COMMENTS: _____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Chloromethane	50	0	44	88	22-140
Bromomethane	50	0	40	80	30-135
Vinyl Chloride	50	0	48	96	30-148
Chloroethane	50	0	47	94	28-174
Methylene Chloride	50	3	54	102	58-141
Acetone	50	10	54	88	0-262
Carbon Disulfide	50	0	59	118	30-148
Vinyl Acetate	50	0	84	168	0-190
1,1-Dichloroethene	50	0	52	104	63-134
1,1-Dichloroethane	50	0	54	108	73-130
1,2-Dichloroethene (total)	100	0	110	110	73-127
Chloroform	50	0	53	106	73-129
1,2-Dichloroethane	50	0	55	110	68-133
2-Butanone	50	4	80	152	21-215
1,1,1-Trichloroethane	50	0	54	108	68-134
Carbon Tetrachloride	50	0	50	100	53-132
Bromodichloromethane	50	0	50	100	71-129
1,2-Dichloropropane	50	0	46	92	74-137
cis-1,3-Dichloropropene	50	0	49	98	73-119
Trichloroethene	50	0	51	102	66-121
Dibromochloromethane	50	0	55	110	59-136
1,1,2-Trichloroethane	50	0	59	118	75-131
Benzene	50	0	51	102	73-124
trans-1,3-Dichloropropene	50	0	56	112	71-117
Bromoform	50	0	60	120	53-133
4-Methyl-2-Pentanone	50	0	69	138	42-163
2-Hexanone	50	0	79	158	17-202
Tetrachloroethene	50	0	44	88	68-124
Toluene	50	0	47	94	72-123
1,1,2,2-Tetrachloroethane	50	0	72	144	64-147

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 34 outside limits

COMMENTS: _____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Chlorobenzene	50	0	50	100	83-121
Ethylbenzene	50	0	49	98	86-121
Styrene	50	0	50	100	77-126
Xylene (total)	150	0	150	100	82-122
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					-
					-
					-

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 34 outside limits

COMMENTS: _____

QCS Spike Summary

Spike: O1194.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	10	50	40	149
Bromomethane	20	15	75	36	140
Vinyl Chloride	20	19	95	52	135
Chloroethane	20	17	85	21	180
Methylene Chloride	20	20	100	71	142
Acetone	20	32	160	4	162
Carbon Disulfide	20	16	80	44	127
Vinyl Acetate	20	28	140	0	190
1,1-Dichloroethene	20	21	105	71	148
1,1-Dichloroethane	20	21	105	62	155
cis-1,2-Dichloroethene	20	22	110	69	145
trans-1,2-Dichloroethene	20	20	100	75	126
Chloroform	20	23	115	79	122
1,2-Dichloroethane	20	22	110	80	123
2-Butanone	20	40	200*	1	198
1,1,1-Trichloroethane	20	22	110	69	132
Carbon Tetrachloride	20	20	100	73	137
Bromodichloromethane	20	23	115	72	128
1,2-Dichloropropane	20	24	120	81	129
cis-1,3-Dichloropropene	20	25	125	67	126
Trichloroethene	20	24	120*	77	116
Dibromochloromethane	20	24	120	62	133
1,1,2-Trichloroethane	20	25	125	70	131
Benzene	20	21	105	89	135
trans-1,3-Dichloropropene	20	27	135*	59	134
Bromoform	20	26	130	50	144
4-Methyl-2-Pentanone	20	36	180*	36	152
2-Hexanone	20	37	185*	1	158
Tetrachloroethene	20	19	95	77	119
Toluene	20	22	110	81	127
1,1,2,2-Tetrachloroethane	20	32	160*	55	151
Chlorobenzene	20	20	100	84	123
Ethylbenzene	20	21	105	86	129
Styrene	20	21	105	77	125
Xylene (total)	60	64	107	84	127

QCS Spike Summary

Spike: O1209.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	12	60	40	149
Bromomethane	20	14	70	36	140
Vinyl Chloride	20	21	105	52	135
Chloroethane	20	20	100	21	180
Methylene Chloride	20	23	115	71	142
Acetone	20	38	190*	4	162
Carbon Disulfide	20	17	85	44	127
Vinyl Acetate	20	27	135	0	190
1,1-Dichloroethene	20	23	115	71	148
1,1-Dichloroethane	20	23	115	62	155
cis-1,2-Dichloroethene	20	23	115	69	145
trans-1,2-Dichloroethene	20	21	105	75	126
Chloroform	20	24	120	79	122
1,2-Dichloroethane	20	23	115	80	123
2-Butanone	20	45	225*	1	198
1,1,1-Trichloroethane	20	24	120	69	132
Carbon Tetrachloride	20	21	105	73	137
Bromodichloromethane	20	21	105	72	128
1,2-Dichloropropane	20	21	105	81	129
cis-1,3-Dichloropropene	20	22	110	67	126
Trichloroethene	20	24	120*	77	116
Dibromochloromethane	20	24	120	62	133
1,1,2-Trichloroethane	20	25	125	70	131
Benzene	20	23	115	89	135
trans-1,3-Dichloropropene	20	25	125	59	134
Bromoform	20	26	130	50	144
4-Methyl-2-Pentanone	20	29	145	36	152
2-Hexanone	20	39	195*	1	158
Tetrachloroethene	20	19	95	77	119
Toluene	20	20	100	81	127
1,1,2,2-Tetrachloroethane	20	32	160*	55	151
Chlorobenzene	20	21	105	84	123
Ethylbenzene	20	22	110	86	129
Styrene	20	21	105	77	125
Xylene (total)	60	65	108	84	127

QCS Spike Summary

Spike: T0826.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	13	65	9	169
Bromomethane	20	18	90	23	144
Vinyl Chloride	20	19	95	29	144
Chloroethane	20	17	85	33	120
Methylene Chloride	20	16	80	72	132
Acetone	20	40	200	0	205
Carbon Disulfide	20	10	50	49	116
Vinyl Acetate	20	18	90	0	190
1,1-Dichloroethene	20	18	90	70	143
1,1-Dichloroethane	20	20	100	78	130
cis-1,2-Dichloroethene	20	20	100	76	123
trans-1,2-Dichloroethene	20	18	90	71	127
Chloroform	20	22	110	78	123
1,2-Dichloroethane	20	20	100	65	126
2-Butanone	20	30	150	0	201
1,1,1-Trichloroethane	20	14	70*	75	126
Carbon Tetrachloride	20	20	100	29	168
Bromodichloromethane	20	21	105	73	121
1,2-Dichloropropane	20	21	105	74	126
cis-1,3-Dichloropropene	20	17	85	66	110
Trichloroethene	20	18	90	77	117
Dibromochloromethane	20	25	125	72	126
1,1,2-Trichloroethane	20	20	100	74	124
Benzene	20	10	50*	66	138
trans-1,3-Dichloropropene	20	19	95	64	113
Bromoform	20	24	120	43	164
4-Methyl-2-Pentanone	20	20	100	1	188
2-Hexanone	20	26	130	0	206
Tetrachloroethene	20	17	85	67	129
Toluene	20	11	55*	75	122
1,1,2,2-Tetrachloroethane	20	21	105	44	147
Chlorobenzene	20	18	90	79	119
Ethylbenzene	20	14	70*	79	126
Styrene	20	18	90	72	118
Xylene (total)	60	48	80*	81	121

QCS Spike Summary

Spike: T0843.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	13	65	9	169
Bromomethane	20	18	90	23	144
Vinyl Chloride	20	15	75	29	144
Chloroethane	20	17	85	33	120
Methylene Chloride	20	18	90	72	132
Acetone	20	41	205	0	205
Carbon Disulfide	20	10	50	49	116
Vinyl Acetate	20	18	90	0	190
1,1-Dichloroethene	20	17	85	70	143
1,1-Dichloroethane	20	21	105	78	130
cis-1,2-Dichloroethene	20	20	100	76	123
trans-1,2-Dichloroethene	20	18	90	71	127
Chloroform	20	22	110	78	123
1,2-Dichloroethane	20	21	105	65	126
2-Butanone	20	31	155	0	201
1,1,1-Trichloroethane	20	14	70*	75	126
Carbon Tetrachloride	20	20	100	29	168
Bromodichloromethane	20	22	110	73	121
1,2-Dichloropropane	20	22	110	74	126
cis-1,3-Dichloropropene	20	17	85	66	110
Trichloroethene	20	18	90	77	117
Dibromochloromethane	20	24	120	72	126
1,1,2-Trichloroethane	20	20	100	74	124
Benzene	20	10	50*	66	138
trans-1,3-Dichloropropene	20	19	95	64	113
Bromoform	20	24	120	43	164
4-Methyl-2-Pentanone	20	19	95	1	188
2-Hexanone	20	25	125	0	206
Tetrachloroethene	20	17	85	67	129
Toluene	20	12	60*	75	122
1,1,2,2-Tetrachloroethane	20	20	100	44	147
Chlorobenzene	20	18	90	79	119
Ethylbenzene	20	14	70*	79	126
Styrene	20	18	90	72	118
Xylene (total)	60	48	80*	81	121

4A

VOLATILE METHOD BLANK SUMMARY

CLIENT ID

VBLKON

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >01190 Lab Sample ID: VBLKON

Date Analyzed: 09/15/00 Time Analyzed: 1414

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	020 ppbQCS	020 ppbQCS	>01194	1653
02				
03				
04				
05				
06				
07				
08				
09				
10				
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COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

CLIENT ID

VBLKON

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >O1190 Lab Sample ID: VBLKON

Date Analyzed: 09/15/00 Time Analyzed: 1414

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	FB091100	001972A-05	>O1191	1508
02	TB091100	001972A-06	>O1192	1543
03	WVA-TL-01	001972A-03	>O1195	1735
04	WVA-TL-X-2	001972A-04	>O1196	1822
05				
06				
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09				
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COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

CLIENT ID

VBLKOO

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >O1202 Lab Sample ID: VBLKOO

Date Analyzed: 09/18/00 Time Analyzed: 0824

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	020 ppbQCS	020 ppbQCS	>O1209	1249
02				
03				
04				
05				
06				
07				
08				
09				
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COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

CLIENT ID

VBLKOO

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >01202 Lab Sample ID: VBLKOO

Date Analyzed: 09/18/00 Time Analyzed: 0824

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VA-TL-01FMSB	001972A-03FMSB	>01206	1105
02	WVA-TL-01FMS	001972A-03FMS	>01207	1140
03	VA-TL-01FMSD	001972A-03FMSD	>01208	1214
04				
05				
06				
07				
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COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

CLIENT ID

VBLKT7

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >T0825 Lab Sample ID: VBLKT7

Date Analyzed: 09/14/00 Time Analyzed: 0906

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: HP5972T

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	WVA-TS-01	001972A-01	>T0840	1909
02				
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
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COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

CLIENT ID

VBLKT8

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >T0842 Lab Sample ID: VBLKT8

Date Analyzed: 09/15/00 Time Analyzed: 0840

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: HP5972T

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VA-TS-01FMSB	001972A-01FMSB	>T0844	1021
02	WVA-TS-X-1	001972A-02	>T0845	1115
03	WVA-TS-01FMS	001972A-01FMS	>T0846	1146
04	VA-TS-01FMSD	001972A-01FMSD	>T0847	1217
05	WVA-TS-X-1RE	001972A-02RE	>T0848	1310
06				
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08				
09				
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COMMENTS: _____

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: OB078 BFB Injection Date:08/30/00

Instrument ID: HP5971O BFB Injection Time:1411

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	15.3
75	30 - 60 percent of mass 95	42.6
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	6.6
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	86.0
175	5.0 - 9.0 percent of mass 174	6.0 (7.0)1
176	95 - 101 percent of mass 174	83.5 (97.1)1
177	5.0 - 9.0 percent of mass 176	5.6 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050O5	VSTD050O5	>O0982	08/30/00	1442
02	VSTD100O9	VSTD100O9	>O0988	08/30/00	1903
03	VSTD200OA	VSTD200OA	>O0989	08/30/00	1940
04	VSTD020O6	VSTD020O6	>O0991	08/30/00	2103
05	VSTD005O8	VSTD005O8	>O0992	08/30/00	2143
06					
07					
08					
09					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: OB104 BFB Injection Date:09/15/00

Instrument ID: HP5971O BFB Injection Time:0839

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	15.2
75	30 - 60 percent of mass 95	43.2
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	6.7
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	75.1
175	5.0 - 9.0 percent of mass 174	5.2 (6.9)1
176	95 - 101 percent of mass 174	73.2 (97.4)1
177	5.0 - 9.0 percent of mass 176	4.7 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050ON	VSTD050ON	>O1187	09/15/00	1117
02	VBLKON	VBLKON	>O1190	09/15/00	1414
03	FB091100	001972A-05	>O1191	09/15/00	1508
04	TB091100	001972A-06	>O1192	09/15/00	1543
05	020 ppbQCS	020 ppbQCS	>O1194	09/15/00	1653
06	WVA-TL-01	001972A-03	>O1195	09/15/00	1735
07	WVA-TL-X-2	001972A-04	>O1196	09/15/00	1822
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: OB105 BFB Injection Date:09/18/00

Instrument ID: HP5971O BFB Injection Time:0655

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	15.7
75	30 - 60 percent of mass 95	43.7
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	6.6
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	78.4
175	5.0 - 9.0 percent of mass 174	5.5 (7.1)1
176	95 - 101 percent of mass 174	75.4 (96.1)1
177	5.0 - 9.0 percent of mass 176	5.1 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050OO	VSTD050OO	>O1201	09/18/00	0733
02	VBLKOO	VBLKOO	>O1202	09/18/00	0824
03	VA-TL-01FMSB	001972A-03FMSB	>O1206	09/18/00	1105
04	WVA-TL-01FMS	001972A-03FMS	>O1207	09/18/00	1140
05	VA-TL-01FMSD	001972A-03FMSD	>O1208	09/18/00	1214
06	020 ppbQCS	020 ppbQCS	>O1209	09/18/00	1249
07					
08					
09					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: TB126 BFB Injection Date:09/13/00

Instrument ID: HP5972T BFB Injection Time:1333

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	19.3
75	30 - 60 percent of mass 95	43.3
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	7.1
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	85.1
175	5.0 - 9.0 percent of mass 174	7.0 (8.2)1
176	95 - 101 percent of mass 174	82.2 (96.6)1
177	5.0 - 9.0 percent of mass 176	5.7 (7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050T1	VSTD050T1	>T0813	09/13/00	1419
02	VSTD020T2	VSTD020T2	>T0814	09/13/00	1450
03	VSTD005T4	VSTD005T4	>T0816	09/13/00	1553
04	VSTD200T6	VSTD200T6	>T0821	09/13/00	1832
05	VSTD100T5	VSTD100T5	>T0822	09/13/00	1903
06					
07					
08					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: TB127 BFB Injection Date:09/14/00

Instrument ID: HP5972T BFB Injection Time:0731

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	18.7
75	30 - 60 percent of mass 95	43.5
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	7.4
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	88.7
175	5.0 - 9.0 percent of mass 174	7.4 (8.4)1
176	95 - 101 percent of mass 174	86.3 (97.3)1
177	5.0 - 9.0 percent of mass 176	5.5 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050T7	VSTD050T7	>T0824	09/14/00	0806
02	VBLKT7	VBLKT7	>T0825	09/14/00	0906
03	020PPB QCS	020PPB QCS	>T0826	09/14/00	1015
04	WVA-TS-01	001972A-01	>T0840	09/14/00	1909
05					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: TB128 BFB Injection Date:09/15/00

Instrument ID: HP5972T BFB Injection Time:0719

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	19.9
75	30 - 60 percent of mass 95	45.8
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	7.2
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	78.2
175	5.0 - 9.0 percent of mass 174	6.4 (8.1)1
176	95 - 101 percent of mass 174	75.6 (96.8)1
177	5.0 - 9.0 percent of mass 176	5.1 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050T8	VSTD050T8	>T0841	09/15/00	0749
02	VBLKT8	VBLKT8	>T0842	09/15/00	0840
03	020PPB QCS	020PPB QCS	>T0843	09/15/00	0931
04	VA-TS-01FMSB	001972A-01FMSB	>T0844	09/15/00	1021
05	WVA-TS-X-1	001972A-02	>T0845	09/15/00	1115
06	WVA-TS-01FMS	001972A-01FMS	>T0846	09/15/00	1146
07	VA-TS-01FMSD	001972A-01FMSD	>T0847	09/15/00	1217
08	WVA-TS-X-1RE	001972A-02RE	>T0848	09/15/00	1310
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8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >T0824 Date Analyzed:09/14/00

Instrument ID: HP5972T Time Analyzed:0806

		IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
	12 HOUR STD	440106		8.58		2634539		9.99		2083330		14.08	
	UPPER LIMIT	880212		9.08		5269078		10.49		4166660		14.58	
	LOWER LIMIT	220053		8.08		1317270		9.49		1041665		13.58	
	EPA SAMPLE NO.												
01	VBLKT7	428761		8.58		2594999		9.99		2158958		14.10	
02	020PPB_QCS	378642		8.58		2248147		9.99		1870645		14.08	
03	WVA-TS-01	411882		8.59		2437010		10.00		1912664		14.10	
04													
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22													

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >T0841 Date Analyzed:09/15/00

Instrument ID: HP5972T Time Analyzed:0749

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	397559	8.61	2429032	10.02	1946821	14.13
	UPPER LIMIT	795118	9.11	4858064	10.52	3893642	14.63
	LOWER LIMIT	198780	8.11	1214516	9.52	973410	13.63
	EPA SAMPLE NO.						
01	VBLKT8	381530	8.61	2315352	10.02	1909532	14.14
02	020PPB QCS	374326	8.62	2216076	10.03	1848097	14.14
03	VA-TS-01FMSB	403311	8.61	2488066	10.02	1967977	14.14
04	WVA-TS-X-1	295692	8.61	1710671	10.02	1343070	14.12
05	WVA-TS-01FMS	372120	8.61	2155887	10.02	1445661	14.12
06	VA-TS-01FMSD	395715	8.61	2392106	10.02	1775856	14.13
07	WVA-TS-X-1RE	400786	8.61	2428925	10.02	1852163	14.11
08							
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20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >O1187 Date Analyzed:09/15/00

Instrument ID: HP59710 Time Analyzed:1117

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	255604	11.49	1307510	12.74	1316689	17.42
	UPPER LIMIT	511208	11.99	2615020	13.24	2633378	17.92
	LOWER LIMIT	127802	10.99	653755	12.24	658344	16.92
	EPA SAMPLE NO.						
01	VBLKON	257444	11.49	1294568	12.74	1286333	17.42
02	FB091100	256778	11.48	1276389	12.74	1285106	17.42
03	TB091100	251296	11.49	1254121	12.72	1309776	17.42
04	020 ppbQCS	250147	11.47	1316753	12.73	1329342	17.42
05	WVA-TL-01	243712	11.47	1197430	12.72	1248957	17.42
06	WVA-TL-X-2	251464	11.47	1234766	12.72	1263959	17.42
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22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >O1201 Date Analyzed:09/18/00

Instrument ID: HP59710 Time Analyzed:0733

		IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
	12 HOUR STD	279905		11.42		1434014		12.67		1428863		17.36	
	UPPER LIMIT	559810		11.92		2868028		13.17		2857726		17.86	
	LOWER LIMIT	139952		10.92		717007		12.17		714432		16.86	
	EPA SAMPLE NO.												
01	VBLKOO	271275		11.42		1370180		12.68		1385084		17.35	
02	VBLKOO	271275		11.42		1370180		12.68		1385084		17.35	
03	VA-TL-01FMSB	262823		11.42		1327729		12.67		1343584		17.35	
04	WVA-TL-01FMS	237891		11.42		1152552		12.66		1236232		17.35	
05	VA-TL-01FMSD	255326		11.42		1322193		12.67		1323184		17.36	
06	020 ppbQCS	262585		11.42		1338756		12.67		1350085		17.35	
07													
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22													

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Instrument Detection Limit Report Date:14 Apr 2000 12:33 pm

Instrument:HP5971:O Units: ug/L

	IDL
Dichlorodifluoromethane	2
Chloromethane	1
Vinyl Chloride	1
Bromomethane	4
Chloroethane	2
Trichlorofluoromethane	1
Ethyl Ether	1
Acrolein	4
1,1,2-Trichlorotrifluoroethane	2
1,1-Dichloroethene	1
Acetone	7
Iodomethane	2
Carbon Disulfide	1
3-Chloro-1-Propene	2
tert-Butyl Alcohol	6
Methylene Chloride	2
Methyl tert-Butyl Ether	3
Ethyl Acetate	1
trans-1,2-Dichloroethene	1
Acrylonitrile	5
1,1-Dichloroethane	1
2,2-Dichloropropane	1
cis-1,2-Dichloroethene	1
2-Butanone	4
2-Methyl-2-Propenenitrile	3
Tetrahydrofuran	3
Chloroform	1
1,1-Dichloropropene	1
1,2-Dichloroethane	1
Dibromomethane	1
Vinyl Acetate	3
2-Chloro-1,3-Butadiene	2
1,1,1-Trichloroethane	1
Carbon Tetrachloride	1
Benzene	2
Trichloroethene	1
1,2-Dichloropropane	1
Methyl Methacrylate	6
Bromodichloromethane	1
2-Nitropropane	4
2-Chloroethylvinylether	5
cis-1,3-Dichloropropene	1
trans-1,3-Dichloropropene	2
1,1,2-Trichloroethane	2
1,3-Dichloropropane	2
Dibromochloromethane	1
1,1,1,2-Tetrachloroethane	1
Bromoform	2
4-Methyl-2-Pentanone	4
Toluene	1
Ethyl Methacrylate	2
Tetrachloroethene	1
2-Hexanone	4
1,2-Dibromoethane	1

Chlorobenzene	1
Ethylbenzene	1
Xylene (total)mp	1
Xylene (total)o	1
Styrene	1
1,4-Dichloro-2-Butene	4
1,1,2,2-Tetrachloroethane	3
1,2,3-Trichloropropane	6
1,3-Dichlorobenzene	1
1,4-Dichlorobenzene	1
1,2-Dichlorobenzene	1
1,2-Dibromo-3-chloropropane	6
1,2,4-Trichlorobenzene	1

Instrument Detection Limit Report Date:20 Sep 2000 2:12 pm

Instrument:HP5972:T Units: ug/L

	IDL
Dichlorodifluoromethane	1
Chloromethane	1
Vinyl Chloride	1
Bromomethane	2
Chloroethane	1
Trichlorofluoromethane	1
Ethyl Ether	8
1,1,2-Trichlorotrifluoroethane	1
1,1-Dichloroethene	1
Acetone	8
Iodomethane	1
Carbon Disulfide	1
3-Chloro-1-Propene	5
Methylene Chloride	1
Methyl tert-Butyl Ether	1
Ethyl Acetate	12
trans-1,2-Dichloroethene	1
Acrylonitrile	4
1,1-Dichloroethane	1
2,2-Dichloropropane	1
cis-1,2-Dichloroethene	1
2-Butanone	7
2-Methyl-2-Propenenitrile	3
Tetrahydrofuran	8
Chloroform	1
1,1-Dichloropropene	1
1,2-Dichloroethane	1
Dibromomethane	1
Vinyl Acetate	3
2-Chloro-1,3-Butadiene	2
1,1,1-Trichloroethane	2
Carbon Tetrachloride	2
Benzene	1
Trichloroethene	1
1,2-Dichloropropane	1
Methyl Methacrylate	2
Bromodichloromethane	1
2-Nitropropane	4
cis-1,3-Dichloropropene	1
trans-1,3-Dichloropropene	1
1,1,2-Trichloroethane	1
1,3-Dichloropropane	1
Dibromochloromethane	1
1,1,1,2-Tetrachloroethane	1
Bromoform	2
4-Methyl-2-Pentanone	3
Toluene	1
Ethyl Methacrylate	1
Tetrachloroethene	1
2-Hexanone	3
1,2-Dibromoethane	1
Chlorobenzene	1
Ethylbenzene	1
Xylene (total)mp	1

Xylene (total)o	1
Styrene	1
1,4-Dichloro-2-Butene	2
1,1,2,2-Tetrachloroethane	1
1,2,3-Trichloropropane	2
1,3-Dichlorobenzene	1
1,4-Dichlorobenzene	1
1,2-Dichlorobenzene	1
1,2-Dibromo-3-chloropropane	2
1,2,4-Trichlorobenzene	1

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: WVA-TS-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-01

Sample wt/vol: 5 (g/mL) G Lab File ID: >T0840

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: not dec. 67 Date Analyzed: 09/14/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	15	U
75-27-4	Bromodichloromethane	15	U
75-25-2	Bromoform	15	U
74-83-9	Bromomethane	30	U
78-93-3	2-Butanone	20	J
75-15-0	Carbon Disulfide	15	U
56-23-5	Carbon Tetrachloride	15	U
108-90-7	Chlorobenzene	15	U
75-00-3	Chloroethane	30	U
110-75-8	2-Chloroethylvinylether	30	U
67-66-3	Chloroform	15	U
74-87-3	Chloromethane	30	U
124-48-1	Dibromochloromethane	15	U
75-34-3	1,1-Dichloroethane	15	U
107-06-2	1,2-Dichloroethane	15	U
75-35-4	1,1-Dichloroethene	15	U
156-60-5	trans-1,2-Dichloroethene	15	U
156-59-2	cis-1,2-Dichloroethene	15	U
78-87-5	1,2-Dichloropropane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
10061-02-6	trans-1,3-Dichloropropene	30	U
100-41-4	Ethylbenzene	15	U
75-09-2	Methylene Chloride	16	JB
108-10-1	4-Methyl-2-Pentanone	30	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
127-18-4	Tetrachloroethene	15	U
108-88-3	Toluene	15	U
71-55-6	1,1,1-Trichloroethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
79-01-6	Trichloroethene	15	U
75-69-4	Trichlorofluoromethane	30	U
75-01-4	Vinyl Chloride	30	U
1330-20-7	Xylene (total)	15	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: WVA-TS-X-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-02

Sample wt/vol: 5 (g/mL) G Lab File ID: >T0845

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: not dec. 59 Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	24	U
78-93-3	2-Butanone	24	U
75-15-0	Carbon Disulfide	2	JB
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	24	U
110-75-8	2-Chloroethylvinylether	24	U
67-66-3	Chloroform	12	U
74-87-3	Chloromethane	24	U
124-48-1	Dibromochloromethane	12	U
75-34-3	1,1-Dichloroethane	12	U
107-06-2	1,2-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
10061-02-6	trans-1,3-Dichloropropene	24	U
100-41-4	Ethylbenzene	12	U
75-09-2	Methylene Chloride	11	JB
108-10-1	4-Methyl-2-Pentanone	24	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
127-18-4	Tetrachloroethene	12	U
108-88-3	Toluene	1	J
71-55-6	1,1,1-Trichloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	24	U
75-01-4	Vinyl Chloride	24	U
1330-20-7	Xylene (total)	12	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: WVA-TS-X-1RE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-02RE

Sample wt/vol: 5 (g/mL) G Lab File ID: >T0848

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: not dec. 59 Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	12	U
75-27-4	Bromodichloromethane	12	U
75-25-2	Bromoform	12	U
74-83-9	Bromomethane	24	U
78-93-3	2-Butanone	24	U
75-15-0	Carbon Disulfide	2	JB
56-23-5	Carbon Tetrachloride	12	U
108-90-7	Chlorobenzene	12	U
75-00-3	Chloroethane	24	U
110-75-8	2-Chloroethylvinylether	24	U
67-66-3	Chloroform	2	J
74-87-3	Chloromethane	24	U
124-48-1	Dibromochloromethane	12	U
75-34-3	1,1-Dichloroethane	12	U
107-06-2	1,2-Dichloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
156-60-5	trans-1,2-Dichloroethene	12	U
156-59-2	cis-1,2-Dichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
10061-02-6	trans-1,3-Dichloropropene	24	U
100-41-4	Ethylbenzene	12	U
75-09-2	Methylene Chloride	10	JB
108-10-1	4-Methyl-2-Pentanone	24	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
127-18-4	Tetrachloroethene	12	U
108-88-3	Toluene	12	U
71-55-6	1,1,1-Trichloroethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
79-01-6	Trichloroethene	12	U
75-69-4	Trichlorofluoromethane	24	U
75-01-4	Vinyl Chloride	24	U
1330-20-7	Xylene (total)	12	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: WVA-TL-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-03

Sample wt/vol: 5 (g/mL) ML Lab File ID: >01195

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: not dec. _____ Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	.7	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	5	U
78-93-3	2-Butanone	4	JB
75-15-0	Carbon Disulfide	5	U
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	5	U
110-75-8	2-Chloroethylvinylether	5	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	5	U
108-10-1	4-Methyl-2-Pentanone	12	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	5	U
75-01-4	Vinyl Chloride	2	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: WVA-TL-X-2

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-04

Sample wt/vol: 5 (g/mL) ML Lab File ID: >01196

Level: (low/med) LOW Date Received: 09/12/^^

% Moisture: not dec. _____ Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	.7	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	5	U
78-93-3	2-Butanone	5	JB
75-15-0	Carbon Disulfide	5	U
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	5	U
110-75-8	2-Chloroethylvinylether	5	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	5	U
108-10-1	4-Methyl-2-Pentanone	12	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	5	U
75-01-4	Vinyl Chloride	2	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: FB091100

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-05

Sample wt/vol: 5 (g/mL) ML Lab File ID: >01191

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: not dec. _____ Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	.7	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	5	U
78-93-3	2-Butanone	3	JB
75-15-0	Carbon Disulfide	5	U
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	5	U
110-75-8	2-Chloroethylvinylether	5	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	2	J
108-10-1	4-Methyl-2-Pentanone	12	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	5	U
75-01-4	Vinyl Chloride	2	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: TB091100

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-06

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O1192

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: not dec. _____ Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	.7	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	5	U
78-93-3	2-Butanone	3	JB
75-15-0	Carbon Disulfide	5	U
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	5	U
110-75-8	2-Chloroethylvinylether	5	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	2	J
108-10-1	4-Methyl-2-Pentanone	12	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	5	U
75-01-4	Vinyl Chloride	2	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: VBLKON

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: VBLKON

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O1190

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
71-43-2	Benzene	.7	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	5	U
78-93-3	2-Butanone	3	J
75-15-0	Carbon Disulfide	5	U
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	5	U
110-75-8	2-Chloroethylvinylether	5	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	12	U
108-10-1	4-Methyl-2-Pentanone	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	5	U
75-01-4	Vinyl Chloride	2	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: VBLKOO

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: VBLKOO

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O1202

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/18/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	.7	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	5	U
78-93-3	2-Butanone	4	J
75-15-0	Carbon Disulfide	5	U
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	5	U
110-75-8	2-Chloroethylvinylether	5	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	3	J
108-10-1	4-Methyl-2-Pentanone	12	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	5	U
75-01-4	Vinyl Chloride	2	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: VBLKT7

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: VBLKT7

Sample wt/vol: 5 (g/mL) G Lab File ID: >T0825

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 09/14/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon Disulfide	1	J
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	10	U
110-75-8	2-Chloroethylvinylether	10	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	4	J
108-10-1	4-Methyl-2-Pentanone	10	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: VBLKT8

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: VBLKT8

Sample wt/vol: 5 (g/mL) G Lab File ID: >T0842

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 09/15/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5	U
75-27-4	Bromodichloromethane	5	U
75-25-2	Bromoform	5	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon Disulfide	1	J
56-23-5	Carbon Tetrachloride	5	U
108-90-7	Chlorobenzene	5	U
75-00-3	Chloroethane	10	U
110-75-8	2-Chloroethylvinylether	10	U
67-66-3	Chloroform	5	U
74-87-3	Chloromethane	10	U
124-48-1	Dibromochloromethane	5	U
75-34-3	1,1-Dichloroethane	5	U
107-06-2	1,2-Dichloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	5	U
75-09-2	Methylene Chloride	6	J
108-10-1	4-Methyl-2-Pentanone	10	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
71-55-6	1,1,1-Trichloroethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
79-01-6	Trichloroethene	5	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl Chloride	10	U
1330-20-7	Xylene (total)	5	U

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKVQ	72	82	53	29	41	78			0
02	SBLKVQFMS	97	87	82	36	56	95			0
03	WVA-TL-01	76	100	71	26	37	67			0
04	WVA-TL-01MS	97	126*	52	30	43	71			1
05	WVA-TL-01MSD	90	93	86	29	38	78			0
06	WVA-TL-X-2	77	84	65	30	40	80			0
07	FB091100	76	88	121	26	36	66			0
08	FB091100RE	74	90	152*	31	32	64			1
09	WVA-TL-01MSB	90	82	61	31	44	71			0
10										
11										
12										
13										
14										
15										
16										
17										
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19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 (35-114)
S2 (FBP) = 2-Fluorobiphenyl (43-116)
S3 (TPH) = Terphenyl-d14 (33-141)
S4 (PHL) = Phenol-d5 (10-110)
S5 (2FP) = 2-Fluorophenol (21-110)
S6 (TBP) = 2,4,6-Tribromophenol (10-123)
S7 (2CP) = 2-Chlorophenol-d4 (-) (advisory)
S8 (DCB) = 1,2-Dichlorobenzene-d4 (-) (advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II SV-1

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKWQ	78	83	58	72	66	65			0
02	SBLKWQFMS	84	78	72	73	78	90			0
03	WVA-TS-X-1	107	141*	99	96	96	87			1
04	WVA-TS-01MSB	82	77	48	75	72	72			0
05	WVA-TS-X-1RE	102	132*	82	106	102	91			1
06	WVA-TS-01	88	111	103	95	70	76			0
07	WVA-TS-01MS	68	87	76	72	51	51			0
08	WVA-TS-01MSD	60	90	67	71	45	50			0
09										
10										
11										
12										
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26										
27										
28										
29										
30										

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 (23-120)
S2 (FBP) = 2-Fluorobiphenyl (30-115)
S3 (TPH) = Terphenyl-d14 (18-137)
S4 (PHL) = Phenol-d5 (24-113)
S5 (2FP) = 2-Fluorophenol (25-121)
S6 (TBP) = 2,4,6-Tribromophenol (19-122)
S7 (2CP) = 2-Chlorophenol-d4 (-) (advisory)
S8 (DCB) = 1,2-Dichlorobenzene-d4 (-) (advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II SV-2

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	8300	0	6200	75	26- 90
2-Chlorophenol	8300	0	6300	76	25-102
1,4-Dichlorobenzene	4100	0	2300	56	28-104
N-Nitroso-di-n-prop.(1)	4100	0	3300	80	41-126
1,2,4-Trichlorobenzene	4100	0	3000	73	38-107
4-Chloro-3-methylphenol	8300	0	4800	58	26-103
Acenaphthene	4100	390	3400	73	31-137
4-Nitrophenol	8300	0	8100	98	11-114
2,4-Dinitrotoluene	4100	0	2400	58	28- 89
Pentachlorophenol	8300	0	4100	49	17-109
Pyrene	4100	12000	16000	98	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	8300	6000	72	4	35	26- 90
2-Chlorophenol	8300	5900	71	7	50	25-102
1,4-Dichlorobenzene	4200	1600	38	38*	27	28-104
N-Nitroso-di-n-prop.(1)	4200	3300	78	2	38	41-126
1,2,4-Trichlorobenzene	4200	2800	67	9	23	38-107
4-Chloro-3-methylphenol	8300	5300	64	10	33	26-103
Acenaphthene	4200	3400	72	1	19	31-137
4-Nitrophenol	8300	7000	84	15	50	11-114
2,4-Dinitrotoluene	4200	2900	69	17	47	28- 89
Pentachlorophenol	8300	1600	19	88*	47	17-109
Pyrene	4200	11000	0*	200*	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits.

RPD: 3 out of 11 outside limits
Spike Recovery: 1 out of 22 outside limits

COMMENTS: analyzed at a 1:4 dilution
JW 12-6-02

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	100	0	32	32	12-110
2-Chlorophenol	100	0	80	80	27-123
1,4-Dichlorobenzene	52	0	40	77	36- 97
N-Nitroso-di-n-prop.(1)	52	0	44	85	41-116
1,2,4-Trichlorobenzene	52	0	60	115*	39- 98
4-Chloro-3-methylphenol	100	0	83	83	23- 97
Acenaphthene	52	0	50	96	46-118
4-Nitrophenol	100	0	49	49	10- 80
2,4-Dinitrotoluene	52	0	39	75	24- 96
Pentachlorophenol	100	0	160	160*	9-103
Pyrene	52	1	30	56	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100	32	32	0	42	12-110
2-Chlorophenol	100	82	82	2	40	27-123
1,4-Dichlorobenzene	52	39	75	3	28	36- 97
N-Nitroso-di-n-prop.(1)	52	50	96	12	38	41-116
1,2,4-Trichlorobenzene	52	53	102*	12	28	39- 98
4-Chloro-3-methylphenol	100	79	79	5	42	23- 97
Acenaphthene	52	42	81	17	31	46-118
4-Nitrophenol	100	46	46	6	50	10- 80
2,4-Dinitrotoluene	52	39	75	0	38	24- 96
Pentachlorophenol	100	160	160*	0	50	9-103
Pyrene	52	52	98	54*	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits.

RPD: 1 out of 11 outside limits
Spike Recovery: 4 out of 22 outside limits

COMMENTS: _____

3D

SEMIVOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TS-01 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
Phenol	3300	0	2300	70	12-110
2-Chlorophenol	3300	0	3000	91	27-123
1,4-Dichlorobenzene	1700	0	1300	76	36-97
N-Nitroso-di-n-propylamine	1700	0	1600	94	41-116
1,2,4-Trichlorobenzene	1700	0	1700	100*	39-98
4-Chloro-3-methylphenol	3300	0	2600	79	23-97
Acenaphthene	1700	0	1100	65	46-118
4-Nitrophenol	3300	0	2100	64	10-80
2,4-Dinitrotoluene	1700	0	970	57	24-96
Pentachlorophenol	3300	0	4000	121*	9-103
Pyrene	1700	0	890	52	26-127

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 02 out of 11 outside limits JB 11/4/96

COMMENTS: _____

FORM III SV-2

3C

SEMIVOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: WVA-TL-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Phenol	100	.3	32	32	12-110
2-Chlorophenol	100	0	78	78	27-123
1,4-Dichlorobenzene	50	0	33	66	36-97
N-Nitroso-di-n-propylamine	50	0	47	94	41-116
1,2,4-Trichlorobenzene	50	0	49	98	39-98
4-Chloro-3-methylphenol	100	0	81	81	23-97
Acenaphthene	50	0	35	70	46-118
4-Nitrophenol	100	0	35	35	10-80
2,4-Dinitrotoluene	50	0	41	82	24-96
Pentachlorophenol	100	0	99	99	9-103
Pyrene	50	0	33	66	26-127

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 11 outside limits

COMMENTS: _____

_____

FORM III SV-1

3C

WATER SEMIVOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: SBLKVQ

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
N-Nitrosodimethylamine	40	0	25	62	20-97
Phenol	40	.3	15	37	24-57
bis(2-Chloroethyl)ether	40	0	34	85	49-133
2-Chlorophenol	40	0	41	102	60-112
1,3-Dichlorobenzene	40	0	29	72	18-143
1,4-Dichlorobenzene	40	0	30	75	21-138
1,2-Dichlorobenzene	40	0	34	85	21-143
bis(2-Chloroisopropyl)ether	40	0	36	90	54-130
N-Nitroso-di-n-propylamine	40	0	36	90	46-129
Hexachloroethane	40	0	26	65	8-144
Nitrobenzene	40	0	37	92	46-141
Isophorone	40	0	39	98	52-140
2-Nitrophenol	40	0	42	105	69-123
2,4-Dimethylphenol	40	0	32	80	62-121
bis(2-Chloroethoxy)methane	40	0	42	105	53-142
2,4-Dichlorophenol	40	0	45	112	66-122
1,2,4-Trichlorobenzene	40	0	33	82	30-142
Naphthalene	40	0	34	85	43-144
4-Chloroaniline	40	0	38	95	48-150
Hexachlorobutadiene	40	0	32	80	5-169
4-Chloro-3-methylphenol	40	0	42	105	63-119
Hexachlorocyclopentadiene	40	0	16	40	1-139
2,4,6-Trichlorophenol	40	0	38	95	70-121
2-Chloronaphthalene	40	0	47	118	52-163
Dimethylphthalate	40	0	39	98	64-137
Acenaphthylene	40	0	34	85	52-132
2,6-Dinitrotoluene	40	0	37	92	60-142
Acenaphthene	40	0	35	88	56-144
2,4-Dinitrophenol	40	0	52	130	70-139
4-Nitrophenol	40	0	15	38	21-65

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0/1 out of 57 outside limits

COMMENTS: JW 10-4-01

3C

WATER SEMIVOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: SBLKVQ_____

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
2,4-Dinitrotoluene	40	0	37	92	57-131
Diethylphthalate	40	0	34	85	62-132
4-Chlorophenyl-phenylether	40	0	33	82	55-136
Fluorene	40	0	36	90	59-131
4,6-Dinitro-2-methylphenol	40	0	55	138	77-164
N-Nitrosodiphenylamine (1)	40	0	45	112	67-149
4-Bromophenyl-phenylether	40	0	45	112	57-150
Hexachlorobenzene	40	0	46	115	53-153
Pentachlorophenol	40	0	64	160 *	63-125
Phenanthrene	40	0	44	110	83-124
Anthracene	40	0	45	112	66-138
Di-n-butylphthalate	40	0	46	115	65-146
Fluoranthene	40	0	48	120	63-145
Benzidine	40	0	24	60	0-221
Pyrene	40	0	35	88	66-152
Butylbenzylphthalate	40	0	39	98	64-158
3,3'-Dichlorobenzidine	40	0	35	88	69-159
Benzo(a)anthracene	40	0	34	85	62-151
Chrysene	40	0	38	95	72-141
bis(2-Ethylhexyl)phthalate	40	0	34	85	63-148
Di-n-octylphthalate	40	0	35	88	65-154
Benzo(b)fluoranthene	40	0	35	88	42-172
Benzo(k)fluoranthene	40	0	30	75	55-150
Benzo(a)pyrene	40	0	35	88	68-147
Indeno(1,2,3-cd)pyrene	40	0	43	108	52-157
Dibenzo(a,h)anthracene	40	0	43	108	25-159
Benzo(g,h,i)perylene	40	0	46	115	56-166
					-
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Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 1 out of 57 outside limits

COMMENTS: JW 10-4-02

FORM III SV-1

3D

SOIL SEMIVOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: SBLKWQ Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
N-Nitrosodimethylamine	3300	0	950	29*	36-120
Phenol	1300	0	1000	77	48-146
bis(2-Chloroethyl)ether	1300	0	980	75	60-119
2-Chlorophenol	1300	0	1400	108	58-139
1,3-Dichlorobenzene	1300	0	1000	77	55-113
1,4-Dichlorobenzene	1300	0	1000	77	54-114
1,2-Dichlorobenzene	1300	0	1200	92	59-116
bis(2-Chloroisopropyl)ether	1300	0	1100	85	64-120
N-Nitroso-di-n-propylamine	1300	0	1100	85	61-121
Hexachloroethane	1300	0	940	72	54-108
Nitrobenzene	1300	0	1200	92	62-119
Isophorone	1300	0	1200	92	63-123
2-Nitrophenol	1300	0	1300	100	64-119
2,4-Dimethylphenol	1300	0	1200	92	57-130
bis(2-Chloroethoxy)methane	1300	0	1300	100	64-123
2,4-Dichlorophenol	1300	0	1400	108	67-129
1,2,4-Trichlorobenzene	1300	0	1200	92	59-115
Naphthalene	1300	0	1100	85	63-124
4-Chloroaniline	1300	0	760	58	0-139
Hexachlorobutadiene	1300	0	1200	92	54-124
4-Chloro-3-methylphenol	1300	0	1400	108	62-136
Hexachlorocyclopentadiene	1300	0	620	48	20-114
2,4,6-Trichlorophenol	1300	0	1200	92	64-129
2-Chloronaphthalene	1300	0	1400	108	70-138
Dimethylphthalate	1300	0	1200	92	62-139
Acenaphthylene	1300	0	1000	77	57-127
2,6-Dinitrotoluene	1300	0	1100	85	58-146
Acenaphthene	1300	0	1100	85	63-131
2,4-Dinitrophenol	1300	0	1400	108	8-220
4-Nitrophenol	1300	0	1100	85	37-164

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 8 out of 57 outside limits

COMMENTS: JW 10-4-01

FORM III SV-2

3D

SOIL SEMIVOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix Spike - EPA Sample No.: SBLKWQ Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
2,4-Dinitrotoluene	1300	0	1100	85	46-146
Diethylphthalate	1300	0	1000	77	56-142
4-Chlorophenyl-phenylether	1300	0	1000	77	58-133
Fluorene	1300	0	1100	85	56-133
4,6-Dinitro-2-methylphenol	1300	0	1600	123	49-186
N-Nitrosodiphenylamine (1)	1300	0	1400	108	69-142
4-Bromophenyl-phenylether	1300	0	1400	108	63-139
Hexachlorobenzene	1300	0	1400	108	63-134
Pentachlorophenol	1300	0	2200	169 *	68-124
Phenanthrene	1300	0	1400	108	64-140
Anthracene	1300	0	1400	108	67-134
Di-n-butylphthalate	1300	0	1400	108	70-139
Fluoranthene	1300	0	1500	115	63-145
Benzidine	3300	0	10	0	0-74
Pyrene	1300	0	1000	77	55-146
Butylbenzylphthalate	1300	0	1100	85	65-149
3,3'-Dichlorobenzidine	1300	0	600	46	23-124
Benzo(a)anthracene	1300	0	1100	85	58-148
Chrysene	1300	0	1200	92	60-151
bis(2-Ethylhexyl)phthalate	1300	0	1000	77	60-146
Di-n-octylphthalate	1300	0	1100	85	66-154
Benzo(b)fluoranthene	1300	0	1200	92	37-191
Benzo(k)fluoranthene	1300	0	980	75	53-130
Benzo(a)pyrene	1300	0	1200	92	60-148
Indeno(1,2,3-cd)pyrene	1300	0	1200	92	44-160
Dibenzo(a,h)anthracene	1300	0	1200	92	30-154
Benzo(g,h,i)perylene	1300	0	1200	92	39-173
					-
					-
					-

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 02 out of 57 outside limits

COMMENTS: JW 10-4-07

FORM III SV-2

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKVQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >Q9378 Lab Sample ID: SBLKVQ

Instrument ID: HP5971Q Date Extracted:09/15/00

Matrix: (soil/water) WATER Date Analyzed: 09/19/00

Level:(low/med) LOW Time Analyzed:1516

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLKVQFMS	SBLKVQFMS	>Q9377	09/19/00
02	WVA-TL-01	001972A-03	>Q9386	09/19/00
03	WVA-TL-01MS	001972A-03MS	>Q9387	09/19/00
04	WVA-TL-01MSD	001972A-03MSD	>Q9388	09/19/00
05	WVA-TL-X-2	001972A-04	>Q9390	09/19/00
06	FB091100	001972A-05	>Q9422	09/21/00
07	FB091100RE	001972A-05RE	>Q9474	09/26/00
08	WVA-TL-01MSB	001972A-03MSB	>Q9573	10/04/00
09				
10				
11				
12				
13				
14				
15				
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17				
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20				
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30				

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKWQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: >Q9415 Lab Sample ID: SBLKWQ

Instrument ID: HP5971Q Date Extracted:09/15/00

Matrix: (soil/water) SOIL Date Analyzed: 09/21/00

Level:(low/med) LOW Time Analyzed:1357

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLKWQFMS	SBLKWQFMS	>Q9396	09/20/00
02	WVA-TS-X-1	001972A-02	>Q9408	09/20/00
03	WVA-TS-01MSB	001972A-01MSB	>Q9416	09/21/00
04	WVA-TS-X-1RE	001972A-02RE	>Q9426	09/21/00
05	WVA-TS-01	001972A-01	>Q9486	09/26/00
06	WVA-TS-01MS	001972A-01MS	>Q9487	09/26/00
07	WVA-TS-01MSD	001972A-01MSD	>Q9488	09/26/00
08				
09				
10				
11				
12				
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COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: Q9319 DFTPP Injection Date:09/14/00

Instrument ID: HP5971Q DFTPP Injection Time:1453

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.9
68	Less than 2.0% of mass 69	1.0 (1.8)1
69	Present	59.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	54.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	20.0
365	Greater than 1.0% of mass 198	2.29
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	66.4
443	17.0 - 23.0% of mass 442	12.4 (18.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020J2	SSTD020J2	>Q9320	09/14/00	1557
02	SSTD050J3	SSTD050J3	>Q9321	09/14/00	1640
03	SSTD080J4	SSTD080J4	>Q9322	09/14/00	1727
04	SSTD120J5	SSTD120J5	>Q9323	09/14/00	1808
05	SSTD160J6	SSTD160J6	>Q9324	09/14/00	1849
06					
07					
08					
09					
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: Q9374 DFTPP Injection Date:09/19/00

Instrument ID: HP5971Q DFTPP Injection Time:1229

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.6
68	Less than 2.0% of mass 69	0.4 (0.8)1
69	Present	58.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	51.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	20.0
365	Greater than 1.0% of mass 198	2.34
441	Present, but less than mass 443	10.8
442	40.0 - 110.0% of mass 198	70.6
443	17.0 - 23.0% of mass 442	13.5 (19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050K5	SSTD050K5	>Q9374	09/19/00	1229
02	SBLKVQFMS	SBLKVQFMS	>Q9377	09/19/00	1435
03	SBLKVQ	SBLKVQ	>Q9378	09/19/00	1516
04	WVA-TL-01	001972A-03	>Q9386	09/19/00	2045
05	WVA-TL-01MS	001972A-03MS	>Q9387	09/19/00	2125
06	WVA-TL-01MSD	001972A-03MSD	>Q9388	09/19/00	2206
07	WVA-TL-X-2	001972A-04	>Q9390	09/19/00	2328
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09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: Q9392 DFTPP Injection Date:09/20/00

Instrument ID: HP5971Q DFTPP Injection Time:1129

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Present	57.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	19.8
365	Greater than 1.0% of mass 198	2.51
441	Present, but less than mass 443	10.8
442	40.0 - 110.0% of mass 198	70.0
443	17.0 - 23.0% of mass 442	14.2 (20.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050K7	SSTD050K7	>Q9392	09/20/00	1129
02	SBLKWQFMS	SBLKWQFMS	>Q9396	09/20/00	1416
03	WVA-TS-X-1	001972A-02	>Q9408	09/20/00	2229
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: Q9410 DFTPP Injection Date:09/21/00

Instrument ID: HP5971Q DFTPP Injection Time:1030

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.9
68	Less than 2.0% of mass 69	0.5 (0.8)1
69	Present	67.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	57.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	18.5
365	Greater than 1.0% of mass 198	1.94
441	Present, but less than mass 443	8.5
442	40.0 - 110.0% of mass 198	54.3
443	17.0 - 23.0% of mass 442	10.8 (20.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050K9	SSTD050K9	>Q9410	09/21/00	1030
02	SBLKWQ	SBLKWQ	>Q9415	09/21/00	1357
03	WVA-TS-01MSB	001972A-01MSB	>Q9416	09/21/00	1437
04	FB091100	001972A-05	>Q9422	09/21/00	1843
05	WVA-TS-X-1RE	001972A-02RE	>Q9426	09/21/00	2127
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: Q9429 DFTPP Injection Date:09/22/00

Instrument ID: HP5971Q DFTPP Injection Time:1108

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.6
68	Less than 2.0% of mass 69	0.7 (1.1)1
69	Present	63.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	52.9
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	18.7
365	Greater than 1.0% of mass 198	2.17
441	Present, but less than mass 443	9.4
442	40.0 - 110.0% of mass 198	61.2
443	17.0 - 23.0% of mass 442	12.1 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020L4	SSTD020L4	>Q9430	09/22/00	1148
02	SSTD050L5	SSTD050L5	>Q9431	09/22/00	1229
03	SSTD080L6	SSTD080L6	>Q9432	09/22/00	1310
04	SSTD120L7	SSTD120L7	>Q9433	09/22/00	1351
05	SSTD160L8	SSTD160L8	>Q9434	09/22/00	1431
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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: Q9473 DFTPP Injection Date:09/26/00

Instrument ID: HP5971Q DFTPP Injection Time:1018

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Present	60.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	51.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.9
365	Greater than 1.0% of mass 198	2.43
441	Present, but less than mass 443	10.0
442	40.0 - 110.0% of mass 198	65.5
443	17.0 - 23.0% of mass 442	13.3 (20.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050M5	SSTD050M5	>Q9473	09/26/00	1018
02	FB091100RE	001972A-05RE	>Q9474	09/26/00	1059
03	WVA-TS-01	001972A-01	>Q9486	09/26/00	1911
04	WVA-TS-01MS	001972A-01MS	>Q9487	09/26/00	1951
05	WVA-TS-01MSD	001972A-01MSD	>Q9488	09/26/00	2032
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5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: Q9565 DFTPP Injection Date:10/04/00

Instrument ID: HP5971Q DFTPP Injection Time:1406

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.6
68	Less than 2.0% of mass 69	0.6 (1.2)1
69	Present	53.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	52.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	19.6
365	Greater than 1.0% of mass 198	2.10
441	Present, but less than mass 443	9.3
442	40.0 - 110.0% of mass 198	60.8
443	17.0 - 23.0% of mass 442	12.0 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020I3	SSTD020I3	>Q9567	10/04/00	1520
02	SSTD050I4	SSTD050I4	>Q9568	10/04/00	1605
03	SSTD080I5	SSTD080I5	>Q9569	10/04/00	1649
04	SSTD120I6	SSTD120I6	>Q9570	10/04/00	1733
05	SSTD160I7	SSTD160I7	>Q9571	10/04/00	1817
06	WVA-TL-01MSB	001972A-03MSB	>Q9573	10/04/00	1945
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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9374 Date Analyzed:09/19/00

Instrument ID: HP5971Q Time Analyzed:1229

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #	
	12 HOUR STD	127937	9.16	524556	12.13	300369	16.06	
	UPPER LIMIT	255874	9.66	1049112	12.63	600738	16.56	
	LOWER LIMIT	63968	8.66	262278	11.63	150184	15.56	
	EPA SAMPLE NO.							
01	SBLKVQFMS	133921	9.17	521260	12.14	315840	16.07	
02	SBLKVQ	159125	9.16	701574	12.13	387524	16.06	
03	WVA-TL-01	187887	9.17	766718	12.14	370109	16.07	<
04	WVA-TL-01MS	156242	9.18	516138	12.15	224630	16.09	<
05	WVA-TL-01MSD	100483	9.18	415515	12.15	268073	16.08	<
06	WVA-TL-X-2	142942	9.18	657829	12.15	388769	16.07	
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9374 Date Analyzed:09/19/00

Instrument ID: HP5971Q Time Analyzed:1229

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#	
	12 HOUR STD	613815		19.11		406385		24.54		315369		27.33		
	UPPER LIMIT	1227630		19.61		812770		25.04		630738		27.83		
	LOWER LIMIT	306908		18.61		203192		24.04		157684		26.83		
	EPA SAMPLE NO.													
01	SBLKVQFMS	534055		19.12		333242		24.55		239433		27.33		
02	SBLKVQ	678978		19.12		579506		24.53		383778		27.32		
03	WVA-TL-01	369007		19.13		97349	*	24.58		116586	*	27.44		<
04	WVA-TL-01MS	168953	*	19.16		137387	*	24.73		50078	*	27.60		<
05	WVA-TL-01MSD	323327		19.13		54723	*	24.56		46665	*	27.37		<
06	WVA-TL-X-2	691583		19.12		388002		24.54		158316		27.33		
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9392 Date Analyzed:09/20/00

Instrument ID: HP5971Q Time Analyzed:1129

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	182444		9.08		723863		12.05		392414		15.98	
	UPPER LIMIT	364888		9.58		1447726		12.55		784828		16.48	
	LOWER LIMIT	91222		8.58		361932		11.55		196207		15.48	
	EPA SAMPLE NO.												
01	SBLKWQFMS	136333		9.09		540102		12.05		345465		15.98	
02	WVA-TS-X-1	177273		9.07		745700		12.04		273312		15.98	<
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9392 Date Analyzed:09/20/00

Instrument ID: HP5971Q Time Analyzed:1129

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#	
	12 HOUR STD	691589		19.04		357287		24.45		238729		27.21		
	UPPER LIMIT	1383178		19.54		714574		24.95		477458		27.71		
	LOWER LIMIT	345794		18.54		178644		23.95		119364		26.71		
	EPA SAMPLE NO.													
01	SBLKWQFMS	592644		19.04		401657		24.45		304134		27.22		
02	WVA-TS-X-1	294696	*	19.04		63211	*	24.48		61947	*	27.30		<
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9410 Date Analyzed:09/21/00

Instrument ID: HP5971Q Time Analyzed:1030

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #	
	12 HOUR STD	126382	9.00	541960	11.97	301110	15.90	
	UPPER LIMIT	252764	9.50	1083920	12.47	602220	16.40	
	LOWER LIMIT	63191	8.50	270980	11.47	150555	15.40	
	EPA SAMPLE NO.							
01	SBLKWQ	128327	9.00	618225	11.97	374971	15.90	
02	WVA-TS-01MSB	122817	9.01	529362	11.97	381128	15.90	
03	FB091100	149439	8.99	633320	11.96	342785	15.89	<
04	WVA-TS-X-1RE	110987	8.98	535452	11.95	223093	15.89	<
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9410 Date Analyzed:09/21/00

Instrument ID: HP5971Q Time Analyzed:1030

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #	
	12 HOUR STD	597897	18.96	390615	24.37	283458	27.12	
	UPPER LIMIT	1195794	19.46	781230	24.87	566916	27.62	
	LOWER LIMIT	298948	18.46	195308	23.87	141729	26.62	
	EPA SAMPLE NO.							
01	SBLKWQ	660202	18.96	482070	24.36	227570	27.11	
02	WVA-TS-01MSB	576645	18.96	502978	24.36	261414	27.11	
03	FB091100	480205	18.94	65875 *	24.36	34949 *	27.13	<
04	WVA-TS-X-1RE	272546 *	18.95	67925 *	24.39	100071 *	27.20	<
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9473 Date Analyzed:09/26/00

Instrument ID: HP5971Q Time Analyzed:1018

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #	
	12 HOUR STD	141395	8.74	590484	11.71	346730	15.66	
	UPPER LIMIT	282790	9.24	1180968	12.21	693460	16.16	
	LOWER LIMIT	70698	8.24	295242	11.21	173365	15.16	
	EPA SAMPLE NO.							
01	FB091100RE	200261	8.74	849187	11.71	444384	15.66	<
02	WVA-TS-01	206761	8.74	842353	11.70	361375	15.66	<
03	WVA-TS-01MS	194604	8.74	757730	11.70	261219	15.66	<
04	WVA-TS-01MSD	203326	8.75	790493	11.70	294292	15.65	<
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9473 Date Analyzed:09/26/00

Instrument ID: HP5971Q Time Analyzed:1018

		IS4 (PHN) AREA #		RT #	IS5 (CRY) AREA #		RT #	IS6 (PRY) AREA #		RT #	
	12 HOUR STD	665721		18.71	402571		24.11	245152		26.82	
	UPPER LIMIT	1331442		19.21	805142		24.61	490304		27.32	
	LOWER LIMIT	332860		18.21	201286		23.61	122576		26.32	
	EPA SAMPLE NO.										
01	FB091100RE	564984		18.71	82613	*	24.11	26476	*	26.84	<
02	WVA-TS-01	444666		18.71	101509	*	24.12	51394	*	26.86	<
03	WVA-TS-01MS	332533	*	18.71	71132	*	24.12	67068	*	26.87	<
04	WVA-TS-01MSD	341351		18.71	84753	*	24.12	82194	*	26.89	<
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9568 Date Analyzed:10/04/00

Instrument ID: HP5971Q Time Analyzed:1605

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	215713	10.08	878148	13.04	465304	16.94
	UPPER LIMIT	431426	10.58	1756296	13.54	930608	17.44
	LOWER LIMIT	107856	9.58	439074	12.54	232652	16.44
	EPA SAMPLE NO.						
01	WVA-TL-01MSB	257325	10.08	911425	13.03	622561	16.93
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Lab File ID: (Standard): >Q9568 Date Analyzed:10/04/00

Instrument ID: HP5971Q Time Analyzed:1605

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	903334		20.01		544821		25.45		478561		28.54	
	UPPER LIMIT	1806668		20.51		1089642		25.95		957122		29.04	
	LOWER LIMIT	451667		19.51		272410		24.95		239280		28.04	
	EPA SAMPLE NO.												
01	WVA-TL-01MSB	938305		20.01		873042		25.44		683108		28.53	
02													
03													
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

Instrument Detection Limit Report Date: 7 Sep 2000 1:21 pm

Instrument:HP5971:Q Units: ug/L

	IDL
Pyridine	1
N-Nitrosodimethylamine	1
Cyclohexanone	2
Phenol	1
Aniline	2
bis(2-Chloroethyl)ether	1
2-Chlorophenol	1
1,3-Dichlorobenzene	2
1,4-Dichlorobenzene	1
Benzyl alcohol	1
1,2-Dichlorobenzene	1
bis(2-Chloroisopropyl)ether	2
2-Methylphenol	2
Hexachloroethane	2
N-Nitroso-di-n-propylamine	2
4-Methylphenol	2
Nitrobenzene	1
Isophorone	2
2-Nitrophenol	1
2,4-Dimethylphenol	1
Benzoic Acid	2
bis(2-Chloroethoxy)methane	2
2,4-Dichlorophenol	1
1,2,4-Trichlorobenzene	1
Naphthalene	1
4-Chloroaniline	3
Hexachlorobutadiene	1
4-Chloro-3-methylphenol	3
2-Methylnaphthalene	2
2,4,5-Trichlorotoluene	1
Hexachlorocyclopentadiene	1
2,4,6-Trichlorophenol	2
2,4,5-Trichlorophenol	4
2-Chloronaphthalene	1
2-Nitroaniline	2
Acenaphthylene	1
Dimethylphthalate	1
2,6-Dinitrotoluene	2
Acenaphthene	1
3-Nitroaniline	3
Dibenzofuran	1
2,4-Dinitrotoluene	2
4-Nitrophenol	2
Fluorene	1
4-Chlorophenyl-phenylether	1
Diethylphthalate	3
4-Nitroaniline	2
4,6-Dinitro-2-methylphenol	1
N-Nitrosodiphenylamine (1)	2
1,2-Diphenylhydrazine	2
4-Bromophenyl-phenylether	1
Hexachlorobenzene	1
Pentachlorophenol	5
Phenanthrene	1

Carbazole	2
Anthracene	2
Di-n-butylphthalate	2
Fluoranthene	2
Benzidine	2
Pyrene	1
Butylbenzylphthalate	1
3,3'-Dichlorobenzidine	1
Benzo(a)anthracene	1
Chrysene	1
bis(2-Ethylhexyl)phthalate	3
Di-n-octylphthalate	1
Benzo(b)fluoranthene	1
Benzo(k)fluoranthene	2
Benzo(a)pyrene	1
Indeno(1,2,3-cd)pyrene	3
Dibenzo(a,h)anthracene	3

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TS-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q9486

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: 60 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/26/00

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	1000	U
108-95-2	Phenol	110	U
111-44-4	bis(2-Chloroethyl)ether	3300	U
95-57-8	2-Chlorophenol	3300	U
541-73-1	1,3-Dichlorobenzene	3300	U
106-46-7	1,4-Dichlorobenzene	3300	U
95-50-1	1,2-Dichlorobenzene	3300	U
108-60-1	bis(2-Chloroisopropyl)ether	3300	U
621-64-7	N-Nitroso-di-n-propylamine	3300	U
67-72-1	Hexachloroethane	3300	U
98-95-3	Nitrobenzene	3300	U
78-59-1	Isophorone	3300	U
88-75-5	2-Nitrophenol	3300	U
105-67-9	2,4-Dimethylphenol	3300	U
111-91-1	bis(2-Chloroethoxy)methane	3300	U
120-83-2	2,4-Dichlorophenol	3300	U
120-82-1	1,2,4-Trichlorobenzene	3300	U
91-20-3	Naphthalene	180	J
87-68-3	Hexachlorobutadiene	3300	U
59-50-7	4-Chloro-3-methylphenol	3300	U
91-57-6	2-Methylnaphthalene	300	J
77-47-4	Hexachlorocyclopentadiene	10000	U
88-06-2	2,4,6-Trichlorophenol	8000	U
91-58-7	2-Chloronaphthalene	3300	U
131-11-3	Dimethylphthalate	3300	U
208-96-8	Acenaphthylene	390	J
606-20-2	2,6-Dinitrotoluene	1400	U
83-32-9	Acenaphthene	390	J
51-28-5	2,4-Dinitrophenol	8000	U
100-02-7	4-Nitrophenol	8000	U
121-14-2	2,4-Dinitrotoluene	3300	U
84-66-2	Diethylphthalate	3300	U
7005-72-3	4-Chlorophenyl-phenylether	3300	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TS-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q9486

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: 60 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/26/00

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	410	J
534-52-1	4,6-Dinitro-2-methylphenol	8000	U
86-30-6	N-Nitrosodiphenylamine (1)	3300	U
101-55-3	4-Bromophenyl-phenylether	3300	U
118-74-1	Hexachlorobenzene	3300	U
87-86-5	Pentachlorophenol	8000	U
85-01-8	Phenanthrene	4800	
120-12-7	Anthracene	1000	J
84-74-2	Di-n-butylphthalate	3300	U
206-44-0	Fluoranthene	5600	
92-87-5	Benzidine	20000	U
129-00-0	Pyrene	12000	
85-68-7	Butylbenzylphthalate	3300	U
91-94-1	3,3'-Dichlorobenzidine	3300	U
56-55-3	Benzo(a)anthracene	4100	
218-01-9	Chrysene	6500	
117-81-7	bis(2-Ethylhexyl)phthalate	1700	J
117-84-0	Di-n-octylphthalate	3300	U
205-99-2	Benzo(b)fluoranthene	4200	
207-08-9	Benzo(k)fluoranthene	5500	
50-32-8	Benzo(a)pyrene	4200	
193-39-5	Indeno(1,2,3-cd)pyrene	2200	J
53-70-3	Dibenzo(a,h)anthracene	840	J
191-24-2	Benzo(g,h,i)perylene	1700	J

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TS-X-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-02

Sample wt/vol: 30.2 (g/mL) G Lab File ID: >Q9408

Level: (low/med) LOW Date Received: 09/[illegible]/00

% Moisture: 61 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/20/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	510	U
108-95-2	Phenol	130	
111-44-4	bis(2-Chloroethyl)ether	1700	U
95-57-8	2-Chlorophenol	1700	U
541-73-1	1,3-Dichlorobenzene	1700	U
106-46-7	1,4-Dichlorobenzene	1700	U
95-50-1	1,2-Dichlorobenzene	1700	U
108-60-1	bis(2-Chloroisopropyl)ether	1700	U
621-64-7	N-Nitroso-di-n-propylamine	1700	U
67-72-1	Hexachloroethane	1700	U
98-95-3	Nitrobenzene	1700	U
78-59-1	Isophorone	1700	U
88-75-5	2-Nitrophenol	1700	U
105-67-9	2,4-Dimethylphenol	1700	U
111-91-1	bis(2-Chloroethoxy)methane	1700	U
120-83-2	2,4-Dichlorophenol	1700	U
120-82-1	1,2,4-Trichlorobenzene	1700	U
91-20-3	Naphthalene	330	J
87-68-3	Hexachlorobutadiene	1700	U
59-50-7	4-Chloro-3-methylphenol	1700	U
91-57-6	2-Methylnaphthalene	510	J
77-47-4	Hexachlorocyclopentadiene	5100	U
88-06-2	2,4,6-Trichlorophenol	4100	U
91-58-7	2-Chloronaphthalene	1700	U
131-11-3	Dimethylphthalate	1700	U
208-96-8	Acenaphthylene	490	J
606-20-2	2,6-Dinitrotoluene	710	U
83-32-9	Acenaphthene	540	J
51-28-5	2,4-Dinitrophenol	4100	U
100-02-7	4-Nitrophenol	4100	U
121-14-2	2,4-Dinitrotoluene	1700	U
84-66-2	Diethylphthalate	1700	U
7005-72-3	4-Chlorophenyl-phenylether	1700	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TS-X-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-02

Sample wt/vol: 30.2 (g/mL) G Lab File ID: >Q9408

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: 61 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/20/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	510	J
534-52-1	4,6-Dinitro-2-methylphenol	4100	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
101-55-3	4-Bromophenyl-phenylether	1700	U
118-74-1	Hexachlorobenzene	1700	U
87-86-5	Pentachlorophenol	4100	U
85-01-8	Phenanthrene	6900	
120-12-7	Anthracene	1500	J
84-74-2	Di-n-butylphthalate	1700	U
206-44-0	Fluoranthene	7000	
92-87-5	Benzidine	10000	U
129-00-0	Pyrene	13000	
85-68-7	Butylbenzylphthalate	1700	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
56-55-3	Benzo(a)anthracene	4800	
218-01-9	Chrysene	9800	
117-81-7	bis(2-Ethylhexyl)phthalate	1600	J
117-84-0	Di-n-octylphthalate	1700	U
205-99-2	Benzo(b)fluoranthene	6600	
207-08-9	Benzo(k)fluoranthene	5100	
50-32-8	Benzo(a)pyrene	5700	
193-39-5	Indeno(1,2,3-cd)pyrene	3500	
53-70-3	Dibenzo(a,h)anthracene	1400	J
191-24-2	Benzo(g,h,i)perylene	2600	

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WVA-TS-X-1RE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-02RE

Sample wt/vol: 30.2 (g/mL) G Lab File ID: >Q9426

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: 61 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/21/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	510	U
108-95-2	Phenol	150	
111-44-4	bis(2-Chloroethyl)ether	1700	U
95-57-8	2-Chlorophenol	1700	U
541-73-1	1,3-Dichlorobenzene	1700	U
106-46-7	1,4-Dichlorobenzene	1700	U
95-50-1	1,2-Dichlorobenzene	1700	U
108-60-1	bis(2-Chloroisopropyl)ether	1700	U
621-64-7	N-Nitroso-di-n-propylamine	1700	U
67-72-1	Hexachloroethane	1700	U
98-95-3	Nitrobenzene	1700	U
78-59-1	Isophorone	1700	U
88-75-5	2-Nitrophenol	1700	U
105-67-9	2,4-Dimethylphenol	1700	U
111-91-1	bis(2-Chloroethoxy)methane	1700	U
120-83-2	2,4-Dichlorophenol	1700	U
120-82-1	1,2,4-Trichlorobenzene	1700	U
91-20-3	Naphthalene	320	J
87-68-3	Hexachlorobutadiene	1700	U
59-50-7	4-Chloro-3-methylphenol	1700	U
91-57-6	2-Methylnaphthalene	530	J
77-47-4	Hexachlorocyclopentadiene	5100	U
88-06-2	2,4,6-Trichlorophenol	4100	U
91-58-7	2-Chloronaphthalene	1700	U
131-11-3	Dimethylphthalate	1700	U
208-96-8	Acenaphthylene	800	J
606-20-2	2,6-Dinitrotoluene	710	U
83-32-9	Acenaphthene	540	J
51-28-5	2,4-Dinitrophenol	4100	U
100-02-7	4-Nitrophenol	4100	U
121-14-2	2,4-Dinitrotoluene	1700	U
84-66-2	Diethylphthalate	1700	U
7005-72-3	4-Chlorophenyl-phenylether	1700	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TS-X-1RE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: 001972A-02RE

Sample wt/vol: 30.2 (g/mL) G Lab File ID: >Q9426

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: 61 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/21/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	540	J
534-52-1	4,6-Dinitro-2-methylphenol	4100	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
101-55-3	4-Bromophenyl-phenylether	1700	U
118-74-1	Hexachlorobenzene	1700	U
87-86-5	Pentachlorophenol	4100	U
85-01-8	Phenanthrene	6700	
120-12-7	Anthracene	1600	J
84-74-2	Di-n-butylphthalate	1700	U
206-44-0	Fluoranthene	7000	
92-87-5	Benzidine	10000	U
129-00-0	Pyrene	11000	
85-68-7	Butylbenzylphthalate	1700	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
56-55-3	Benzo(a)anthracene	4900	
218-01-9	Chrysene	9300	
117-81-7	bis(2-Ethylhexyl)phthalate	1700	
117-84-0	Di-n-octylphthalate	1700	U
205-99-2	Benzo(b)fluoranthene	5900	
207-08-9	Benzo(k)fluoranthene	4700	
50-32-8	Benzo(a)pyrene	5400	
193-39-5	Indeno(1,2,3-cd)pyrene	2200	
53-70-3	Dibenzo(a,h)anthracene	990	J
191-24-2	Benzo(g,h,i)perylene	1300	J

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TL-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >Q9386

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	1	U
108-95-2	Phenol	1	U
111-44-4	bis(2-Chloroethyl)ether	3	U
95-57-8	2-Chlorophenol	3	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
621-64-7	N-Nitroso-di-n-propylamine	3	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	3	U
105-67-9	2,4-Dimethylphenol	2	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	3	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	10	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	2	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	3	U
91-58-7	2-Chloronaphthalene	5	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	16	U
100-02-7	4-Nitrophenol	8	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	2	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WVA-TL-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >Q9386

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
534-52-1	4,6-Dinitro-2-methylphenol	5	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	2	U
87-86-5	Pentachlorophenol	23	U
85-01-8	Phenanthrene	.4	J
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	.7	J
92-87-5	Benzidine	80	U
129-00-0	Pyrene	1	J
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	2	U
207-08-9	Benzo(k)fluoranthene	3	U
50-32-8	Benzo(a)pyrene	2	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TL-X-2

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-04

Sample wt/vol: 950 (g/mL) ML Lab File ID: >Q9390

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	1	U
108-95-2	Phenol	1	U
111-44-4	bis(2-Chloroethyl)ether	3	U
95-57-8	2-Chlorophenol	3	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
621-64-7	N-Nitroso-di-n-propylamine	3	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	3	U
105-67-9	2,4-Dimethylphenol	3	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	3	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	10	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	2	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	3	U
91-58-7	2-Chloronaphthalene	5	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	16	U
100-02-7	4-Nitrophenol	8	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	3	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

WVA-TL-X-2

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-04

Sample wt/vol: 950 (g/mL) ML Lab File ID: >Q9390

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
534-52-1	4,6-Dinitro-2-methylphenol	5	U
86-30-6	N-Nitrosodiphenylamine (1)	13	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	2	U
87-86-5	Pentachlorophenol	24	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
92-87-5	Benzidine	84	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	3	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	3	U
207-08-9	Benzo(k)fluoranthene	3	U
50-32-8	Benzo(a)pyrene	2	U
193-39-5	Indeno(1,2,3-cd)pyrene	6	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FB091100

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-05

Sample wt/vol: 920 (g/mL) ML Lab File ID: >Q9422

Level: (low/med) LOW Date Received: 09/ 2/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/21/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	1	U
108-95-2	Phenol	1	U
111-44-4	bis(2-Chloroethyl)ether	3	U
95-57-8	2-Chlorophenol	3	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
621-64-7	N-Nitroso-di-n-propylamine	4	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	3	U
105-67-9	2,4-Dimethylphenol	3	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	3	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	11	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	2	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	3	U
91-58-7	2-Chloronaphthalene	5	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	17	U
100-02-7	4-Nitrophenol	8	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	3	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB091100

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-05

Sample wt/vol: 920 (g/mL) ML Lab File ID: >Q9422

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/21/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	11	U
534-52-1	4,6-Dinitro-2-methylphenol	5	U
86-30-6	N-Nitrosodiphenylamine (1)	13	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	3	U
87-86-5	Pentachlorophenol	24	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	.4	J
92-87-5	Benzidine	87	U
129-00-0	Pyrene	1	J
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	3	U
117-81-7	bis(2-Ethylhexyl)phthalate	11	U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	3	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	2	U
193-39-5	Indeno(1,2,3-cd)pyrene	6	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FB091100RE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-05RE

Sample wt/vol: 920 (g/mL) ML Lab File ID: >Q9474

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/26/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	1	U
108-95-2	Phenol	1	U
111-44-4	bis(2-Chloroethyl)ether	3	U
95-57-8	2-Chlorophenol	3	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
621-64-7	N-Nitroso-di-n-propylamine	4	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	3	U
105-67-9	2,4-Dimethylphenol	3	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	3	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	11	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	2	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	3	U
91-58-7	2-Chloronaphthalene	5	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	17	U
100-02-7	4-Nitrophenol	8	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	3	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB091100RE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: 001972A-05RE

Sample wt/vol: 920 (g/mL) ML Lab File ID: >Q9474

Level: (low/med) LOW Date Received: 09/12/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/26/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	11	U
534-52-1	4,6-Dinitro-2-methylphenol	5	U
86-30-6	N-Nitrosodiphenylamine (1)	13	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	3	U
87-86-5	Pentachlorophenol	24	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	.3	J
92-87-5	Benzidine	87	U
129-00-0	Pyrene	1	J
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	3	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	J
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	3	U
207-08-9	Benzo(k)fluoranthene	4	U
50-32-8	Benzo(a)pyrene	2	U
193-39-5	Indeno(1,2,3-cd)pyrene	6	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKVQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: SBLKVQ

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >Q9378

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	1	U
108-95-2	Phenol	.3	J
111-44-4	bis(2-Chloroethyl)ether	3	U
95-57-8	2-Chlorophenol	3	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
621-64-7	N-Nitroso-di-n-propylamine	3	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	3	U
105-67-9	2,4-Dimethylphenol	2	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	3	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	10	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	2	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	3	U
91-58-7	2-Chloronaphthalene	5	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	16	U
100-02-7	4-Nitrophenol	8	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	2	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKVQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) WATER Lab Sample ID: SBLKVQ

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >Q9378

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/19/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
86-73-7	Fluorene	10	U
534-52-1	4,6-Dinitro-2-methylphenol	5	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	2	U
87-86-5	Pentachlorophenol	23	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
92-87-5	Benzidine	80	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	2	U
207-08-9	Benzo(k)fluoranthene	3	U
50-32-8	Benzo(a)pyrene	2	U
193-39-5	Indeno(1,2,3-cd)pyrene	5	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKWQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: SBLKWQ

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q9415

Level: (low/med) LOW Date Received: _____

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/21/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	100	U
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
108-60-1	bis(2-Chloroisopropyl)ether	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	1000	U
88-06-2	2,4,6-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	140	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKWQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: (soil/water) SOIL Lab Sample ID: SBLKWQ

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q9415

Level: (low/med) LOW Date Received: _____

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/15/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/21/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
86-73-7	Fluorene	330	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
92-87-5	Benzidine	2000	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

GC Column: DB-1701 ID: 0.53 (mm)

	SAMPLE NO.	TCX %REC	#	DCB %REC	#	OTHER %REC	#	OTHER %REC	#	TOT OUT
01	PBLK04	100		111						0
02	PBLK04QC1	93		115						0
03	WVA-TL-01MSB1	92		121						0
04	WVA-TL-01	86		64*						1
05	WVA-TL-X-2	100		90						0
06	FB091100	89		50*						1
07	WVA-TL-01MS1	83		94						0
08	WVA-TL-01MSD1	84		52*						1
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

ADVISORY QC LIMITS

TCX = Tetrachloro-m-xylene (55-119)
DCB = Decachlorobiphenyl (68-143)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM II PEST-1
GC-8081A:rev 1.0

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

GC Column: DB-1701 ID: 0.53 (mm)

	SAMPLE NO.	TCX %REC	#	DCB %REC	#	OTHER %REC	#	OTHER %REC	#	TOT OUT
01	PBLK00	105		127						0
02	PBLK00QC1	92		112						0
03	WVA-TS-01MSB1	108		128						0
04	WVA-TS-01	82		136						0
05	WVA-TS-X-1	78		116						0
06	WVA-TS-01MS1	127		184	D					0
07	WVA-TS-01MSD1	100		124						0
08										
09										
10										
11										
12										
13										
14										
15										
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17										
18										
19										
20										
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25										
26										
27										
28										
29										
30										

ADVISORY QC LIMITS

TCX = Tetrachloro-m-xylene (47-150)
DCB = Decachlorobiphenyl (41-149)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM II PEST-2
GC-8081A:rev 1.0

3E
WATER PESTICIDE MATRIX SPIKE BLANK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TL-01 Conc. Units : UG/L

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.50	0.0	0.53	106				15	56-123
Heptachlor	0.50	0.0	0.52	104				20	40-131
Aldrin	0.50	0.0	0.52	104				22	40-120
Dieldrin	1.0	0.0	1.1	110				18	52-126
Endrin	1.0	0.0	1.2	120				21	56-121
4,4'-DDT	1.0	0.0	1.1	110				27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TL-01 Conc. Units : UG/L

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.56	0.0	0.43	77	0.46	82	6	15	56-123
Heptachlor	0.56	0.0	0.41	73	0.40	71	3	20	40-131
Aldrin	0.56	0.0	0.41	73	0.41	73	0	22	40-120
Dieldrin	1.1	0.0	0.98	89	1.0	91	2	18	52-126
Endrin	1.1	0.0	1.2	108	1.2	108	0	21	56-121
4,4'-DDT	1.1	0.0	0.83	75	0.90	82	9	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

3F

SOIL PESTICIDE MATRIX SPIKE BLANK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TS-01 Conc. Units : UG/KG

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	17	0.0	16.	94				50	46-127
Aldrin	17	0.0	20.	118				43	34-132
Heptachlor	17	0.0	18.	106				31	35-130
Dieldrin	33	0.0	39.	118				38	31-134
Endrin	33	0.0	42.	127				45	42-139
4,4'-DDT	33	0.0	35.	106				50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TS-01 Conc. Units : UG/KG

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	50	0.0	41.	82	28.	56	38	50	46-127
Aldrin	50	15.	74.	118	89.	148*	22	43	34-132
Heptachlor	50	0.0	46.	92	34.	68	30	31	35-130
Dieldrin	100	0.0	120	120	68.	68	55*	38	31-134
Endrin	100	0.0	160	160*	98.	98	48*	45	42-139
4,4'-DDT	100	100	200	100	130	30	108*	50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 3 out of 6 outside limits
Spike Recovery: 2 out of 12 outside limits

COMMENTS: _____

3G
WATER PESTICIDE QC CHECK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Sample No.: PBLK04

COMPOUND	SPIKE ADDED (UG/L)	SPIKE CONCENTRATION (UG/L)	% REC	#	QC. LIMITS REC.
alpha-BHC	0.20	0.17	85		57-131
beta-BHC	0.20	0.23	115		69-155
delta-BHC	0.20	0.078	22		16-139
gamma-BHC	0.20	0.18	90		59-133
Heptachlor	0.20	0.16	80		49-138
Aldrin	0.20	0.14	70		37-147
Heptachlor Epoxide	0.20	0.20	100		65-149
Endosulfan I	0.20	0.20	100		60-140
gamma-Chlordane	0.20	0.19	95		60-140
alpha-Chlordane	0.20	0.20	100		60-140
Dieldrin	0.20	0.19	95		59-148
4,4'-DDE	0.20	0.20	100		55-157
Endrin	0.20	0.20	100		49-162
Endosulfan II	0.20	0.19	95		93-156
4,4'-DDD	0.20	0.18	90		62-121
Endosulfan Sulfate	0.20	0.17	85		58-151
4,4'-DDT	0.20	0.18	90		56-143
Methoxychlor	0.20	0.20	100		22-245
Endrin Aldehyde	0.20	0.15	75		75-153
Endrin Ketone	0.20	0.22	110		80-159

Column to be used to flag recovery values with an asterisk

COMMENTS: _____

3H
SOIL PESTICIDE QC CHECK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Sample No.: PBLK00

COMPOUND	SPIKE ADDED (UG/KG)	SPIKE CONCENTRATION (UG/KG)	% REC	#	QC. LIMITS REC.
alpha-BHC	6.7	5.4	80		68-139
beta-BHC	6.7	6.8	101		85-150
delta-BHC	6.7	2.2	33	*	35-107
gamma-BHC	6.7	5.7	85		77-142
Heptachlor	6.7	6.2	92		68-157
Aldrin	6.7	6.1	91		76-137
Heptachlor Epoxide	6.7	6.4	96		81-143
Endosulfan I	6.7	6.5	97		81-152
gamma-Chlordane	6.7	6.4	96		60-140
alpha-Chlordane	6.7	6.6	98		60-140
Dieldrin	6.7	6.5	97		82-152
4,4'-DDE	6.7	6.4	96		67-143
Endrin	6.7	6.4	96		91-155
Endosulfan II	6.7	5.3	79	*	87-183
4,4'-DDD	6.7	4.0	60		40-152
Endosulfan Sulfate	6.7	5.4	80		72-151
4,4'-DDT	6.7	6.1	91		73-143
Methoxychlor	6.7	6.2	92		19-271
Endrin Aldehyde	6.7	4.3	64		55-171
Endrin Ketone	6.7	7.1	106		95-150

Column to be used to flag recovery values with an asterisk

COMMENTS: _____

_____

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: STL-CT Contract: _____ Client Id: PBLK04

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Lab sample ID: 091500-B02 Lab File ID: C4065135

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) Y Date Extracted: 09/15/00

Date Analyzed (1): 09/22/00 Date Analyzed (2): 09/25/00

Time Analyzed (1): 2153 Time Analyzed (2): 2321

Instrument ID (1): HP58904C Instrument ID (2): HP58901C

GC Column (1):DB-1701 ID:0.53(mm) GC Column (2):RTX-35 ID:0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK04QC1	091500-B02QC1	09/22/00	09/25/00
02	WVA-TL-01MSB1	001972A-03MSB1	09/22/00	09/26/00
03	WVA-TL-01	001972A-03	09/22/00	09/26/00
04	WVA-TL-X-2	001972A-04	09/23/00	09/26/00
05	FB091100	001972A-05	09/23/00	09/26/00
06	WVA-TL-01MS1	001972A-03MS1	09/23/00	09/26/00
07	WVA-TL-01MSD1	001972A-03MSD1	09/23/00	09/26/00
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: STL-CT Contract: _____ Client Id: PBLK00

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Lab sample ID: 091300-B06 Lab File ID: C4065037

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 09/13/00

Date Analyzed (1): 09/19/00 Date Analyzed (2): 09/23/00

Time Analyzed (1): 2101 Time Analyzed (2): 1050

Instrument ID (1): HP58904C Instrument ID (2): HP58901C

GC Column (1):DB-1701 ID:0.53(mm) GC Column (2):RTX-35 ID:0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK00QC1	091300-B06QC1	09/19/00	09/23/00
02	WVA-TS-01MSB1	001972A-01MSB1	09/19/00	09/23/00
03	WVA-TS-01	001972A-01	09/19/00	09/23/00
04	WVA-TS-X-1	001972A-02	09/20/00	09/23/00
05	WVA-TS-01MS1	001972A-01MS1	09/20/00	09/23/00
06	WVA-TS-01MSD1	001972A-01MSD1	09/20/00	09/23/00
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

INSTRUMENT DETECTION LIMITS

Instrument : HP58904C

DB-1701 column

04/04/2000

	IDL ug/L	Quantitation Limit ug/L
4,4'-DDD	0.0293	0.10
4,4'-DDE	0.0037	0.10
4,4'-DDT	0.0215	0.10
Aldrin	0.0086	0.05
alpha-BHC	0.0012	0.05
alpha-Chlordane	0.0141	0.05
beta-BHC	0.0140	0.05
Chlorobenzilate	0.0431	1.0
delta-BHC	0.0097	0.05
Dieldrin	0.0149	0.10
Endosulfan I	0.0030	0.05
Endosulfan II	0.0036	0.10
Endosulfan Sulfate	0.0034	0.10
Endrin	0.0190	0.10
Endrin Aldehyde	0.0183	0.10
Endrin Ketone	0.0080	0.10
gamma-BHC	0.0046	0.05
gamma-Chlordane	0.0089	0.05
Heptachlor	0.0093	0.05
Heptachlor Epoxide	0.0011	0.05
Isodrin	0.0141	0.05
Methoxychlor	0.1038	0.50
Toxaphene	1.475	2.5
Technical Chlordane	0.304	0.50
Aroclor-1221	0.918	2.0
Aroclor-1016	0.226	1.0
Aroclor-1232	0.238	1.0
Aroclor-1242	0.184	1.0
Aroclor-1248	0.168	1.0
Aroclor-1254	0.116	1.0
Aroclor-1260	0.147	1.0

Instrument detection limits are based on a 1000ml Initial Volume and 10ml Final Volume

INSTRUMENT DETECTION LIMITS
Instrument : HP58901C
RTX-35 column
04/09/2000

	IDL ug/L	Quantitation Limit ug/L
4,4'-DDD	0.0278	0.10
4,4'-DDE	0.0021	0.10
4,4'-DDT	0.0148	0.10
Aldrin	0.0101	0.05
alpha-BHC	0.0461	0.05
alpha-Chlordane	0.0056	0.05
beta-BHC	0.0253	0.05
Chlorobenzilate	0.1097	1.0
delta-BHC	0.0031	0.05
Dieldrin	0.0064	0.10
Endosulfan I	0.0073	0.05
Endosulfan II	0.0184	0.10
Endosulfan Sulfate	0.0020	0.10
Endrin	0.0060	0.10
Endrin Aldehyde	0.0044	0.10
Endrin Ketone	0.0019	0.10
gamma-BHC	0.0010	0.05
gamma-Chlordane	0.0014	0.05
Heptachlor	0.0041	0.05
Heptachlor Epoxide	0.0030	0.05
Isodrin	0.0021	0.05
Methoxychlor	0.2012	0.50
Toxaphene	0.076	2.5
Technical Chlordane	0.043	0.50
Aroclor-1221	0.083	2.0
Aroclor-1016	0.050	1.0
Aroclor-1232	0.088	1.0
Aroclor-1242	0.035	1.0
Aroclor-1248	0.014	1.0
Aroclor-1254	0.070	1.0
Aroclor-1260	0.034	1.0

Instrument detection limits are based on a 1000ml Initial Volume and 10ml Final Volume

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TS-01

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): SOIL Lab Sample ID: 001972A-01

Sample wt/vol: 30.3 (g/ml) G Lab File ID: C4065040

% Moisture: 67 decanted: (Y/N)__ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/13/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/19/00

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO. COMPOUND CONCENTRATION UNITS: Q
(ug/L or ug/Kg) UG/KG

319-84-6	alpha-BHC	51.	U
319-85-7	beta-BHC	220	U
319-86-8	delta-BHC	51.	U
58-89-9	gamma-BHC (Lindane)	51.	U
76-44-8	Heptachlor	51.	U
309-00-2	Aldrin	15.	J
1024-57-3	Heptachlor Epoxide	51.	U
959-98-8	Endosulfan I	51.	U
60-57-1	Dieldrin	99.	U
72-55-9	4,4'-DDE	110	
72-20-8	Endrin	99.	U
33213-65-9	Endosulfan II	99.	U
72-54-8	4,4'-DDD	99.	U
1031-07-8	Endosulfan Sulfate	99.	U
50-29-3	4,4'-DDT	100	
72-43-5	Methoxychlor	510	U
53494-70-5	Endrin ketone	99.	U
7421-93-4	Endrin aldehyde	120	U
5103-71-9	alpha-Chlordane	15.	J
5103-74-2	gamma-Chlordane	13.	J
8001-35-2	Toxaphene	3300	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TS-X-1

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): SOIL Lab Sample ID: 001972A-02

Sample wt/vol: 30.7 (g/ml) G Lab File ID: C4065042

% Moisture: 59 decanted: (Y/N) __ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/13/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/20/00

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	40.	U
319-85-7	beta-BHC	180	U
319-86-8	delta-BHC	40.	U
58-89-9	gamma-BHC (Lindane)	40.	U
76-44-8	Heptachlor	40.	U
309-00-2	Aldrin	40.	U
1024-57-3	Heptachlor Epoxide	40.	U
959-98-8	Endosulfan I	40.	U
60-57-1	Dieldrin	79.	U
72-55-9	4,4'-DDE	79.	U
72-20-8	Endrin	79.	U
33213-65-9	Endosulfan II	79.	U
72-54-8	4,4'-DDD	79.	U
1031-07-8	Endosulfan Sulfate	79.	U
50-29-3	4,4'-DDT	54.	J
72-43-5	Methoxychlor	400	U
53494-70-5	Endrin ketone	79.	U
7421-93-4	Endrin aldehyde	93.	U
5103-71-9	alpha-Chlordane	40.	U
5103-74-2	gamma-Chlordane	40.	U
8001-35-2	Toxaphene	2600	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TL-01

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 001972A-03

Sample wt/vol: 1000 (g/ml) ML Lab File ID: C4065138

% Moisture: _____ decanted: (Y/N)__ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/22/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	2.5	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TL-X-2

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 001972A-04

Sample wt/vol: 820 (g/ml) ML Lab File ID: C4065139

% Moisture: _____ decanted: (Y/N)__ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/23/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.061	U
319-85-7	beta-BHC	0.061	U
319-86-8	delta-BHC	0.061	U
58-89-9	gamma-BHC (Lindane)	0.061	U
76-44-8	Heptachlor	0.061	U
309-00-2	Aldrin	0.061	U
1024-57-3	Heptachlor Epoxide	0.061	U
959-98-8	Endosulfan I	0.061	U
60-57-1	Dieldrin	0.12	U
72-55-9	4,4'-DDE	0.12	U
72-20-8	Endrin	0.12	U
33213-65-9	Endosulfan II	0.12	U
72-54-8	4,4'-DDD	0.12	U
1031-07-8	Endosulfan Sulfate	0.12	U
50-29-3	4,4'-DDT	0.12	U
72-43-5	Methoxychlor	0.61	U
53494-70-5	Endrin Ketone	0.12	U
7421-93-4	Endrin Aldehyde	0.12	U
5103-71-9	alpha-Chlordane	0.061	U
5103-74-2	gamma-Chlordane	0.061	U
8001-35-2	Toxaphene	3.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: FB091100

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 001972A-05

Sample wt/vol: 850 (g/ml) ML Lab File ID: C4065140

% Moisture: _____ decanted: (Y/N)__ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/23/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.059	U
319-85-7	beta-BHC	0.059	U
319-86-8	delta-BHC	0.059	U
58-89-9	gamma-BHC (Lindane)	0.059	U
76-44-8	Heptachlor	0.059	U
309-00-2	Aldrin	0.059	U
1024-57-3	Heptachlor Epoxide	0.059	U
959-98-8	Endosulfan I	0.059	U
60-57-1	Dieldrin	0.12	U
72-55-9	4,4'-DDE	0.12	U
72-20-8	Endrin	0.12	U
33213-65-9	Endosulfan II	0.12	U
72-54-8	4,4'-DDD	0.12	U
1031-07-8	Endosulfan Sulfate	0.12	U
50-29-3	4,4'-DDT	0.12	U
72-43-5	Methoxychlor	0.59	U
53494-70-5	Endrin Ketone	0.12	U
7421-93-4	Endrin Aldehyde	0.12	U
5103-71-9	alpha-Chlordane	0.059	U
5103-74-2	gamma-Chlordane	0.059	U
8001-35-2	Toxaphene	2.9	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: PBLK00

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): SOIL Lab Sample ID: 091300-B06

Sample wt/vol: 30 (g/ml) G Lab File ID: C4065037

% Moisture: 0 decanted: (Y/N) __ Date Received : _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/13/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/19/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	7.5	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17.	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	110	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: PBLK04

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 091500-B02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: C4065135

% Moisture: _____ decanted: (Y/N)__ Date Received : _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/22/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO. COMPOUND CONCENTRATION UNITS: Q
(ug/L or ug/Kg) UG/L

319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor Epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	2.5	U

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

GC Column: DB-1701 ID: 0.53 (mm)

	SAMPLE NO.	TCX %REC	#	DCB %REC	#	OTHER %REC	#	OTHER %REC	#	TOT OUT
01	PBLK04	106		122						0
02	PBLK04QC2	96		98						0
03	WVA-TL-01MSB2	97		124						0
04	WVA-TL-01	92		60*						1
05	WVA-TL-X-2	104		110						0
06	FB091100	94		58*						1
07	WVA-TL-01MS2	92		64*						1
08	WVA-TL-01MSD2	84		60*						1
09										
10										
11										
12										
13										
14										
15										
16										
17										
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21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

ADVISORY QC LIMITS

TCX = Tetrachloro-m-xylene (55-119)
DCB = Decachlorobiphenyl (68-143)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM II PEST-1
GC-8082:rev 1.0

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

GC Column: DB-1701 ID: 0.53 (mm)

	SAMPLE NO.	TCX %REC	#	DCB %REC	#	OTHER %REC	#	OTHER %REC	#	TOT OUT
01	PBLK00	109		128						0
02	PBLK00QC2	123		146						0
03	WVA-TS-01MSB2	109		137						0
04	WVA-TS-01	89		122						0
05	WVA-TS-X-1	83		110						0
06	WVA-TS-01MS2	90		138						0
07	WVA-TS-01MSD2	84		114						0
08										
09										
10										
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28										
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30										

ADVISORY QC LIMITS

TCX = Tetrachloro-m-xylene (47-150)
DCB = Decachlorobiphenyl (41-149)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM II PEST-2
GC-8082:rev 1.0

3E
WATER PCB MATRIX SPIKE BLANK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TL-01 Conc. Units : UG/L

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1260	2.0	0.0	2.3	115				27	15-175

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

3E

WATER PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TL-01 Conc. Units : UG/L

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1260	2.0	0.0	1.3	65	1.4	64	2	27	15-175

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

COMMENTS: _____

3F

SOIL PCB MATRIX SPIKE BLANK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TS-01 Conc. Units : UG/KG

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1260	170	0.0	91.	54				50	36-151

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 1 outside limits

COMMENTS: _____

3F

SOIL PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix Spike - Sample No.: WVA-TS-01 Conc. Units : UG/KG

	SPIKE ADDED	SAMPLE CONC	MS CONC	MS %REC #	MSD CONC	MSD %REC #	%RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1260	490	550	700	31*	620	16*	64*	50	36-151

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 1 outside limits
Spike Recovery: 2 out of 2 outside limits

COMMENTS: _____

3G
WATER PESTICIDE QC CHECK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Sample No.: PBLK04

COMPOUND	SPIKE ADDED (UG/L)	SPIKE CONCENTRATION (UG/L)	% REC #	QC. LIMITS REC.
Aroclor-1242	5.0	4.3	86	21-121
Aroclor-1260	5.0	4.0	80	32-119

Column to be used to flag recovery values with an asterisk

COMMENTS: _____

3H
SOIL PESTICIDE QC CHECK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Sample No.: PBLK00

COMPOUND	SPIKE ADDED (UG/KG)	SPIKE CONCENTRATION (UG/KG)	% REC #	QC. LIMITS REC.
Aroclor-1242	170	180	106	36-134
Aroclor-1260	170	180	106	56-121

Column to be used to flag recovery values with an asterisk

COMMENTS: _____

_____

3G
WATER PESTICIDE QC CHECK RECOVERY

Lab Name: STL-CT Contract: _____

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Sample No.: PBLK04

COMPOUND	SPIKE ADDED (UG/L)	SPIKE CONCENTRATION (UG/L)	% REC #	QC. LIMITS REC.
Aroclor-1242	5.0	4.3	86	21-121
Aroclor-1260	5.0	4.0	80	32-119

Column to be used to flag recovery values with an asterisk

COMMENTS: _____

FORM III PEST-3
GC-8082:rev 1.0

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: STL-CT Contract: _____ Client Id: PBLK00

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Lab sample ID: 091300-B06 Lab File ID: C4065045

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 09/13/00

Date Analyzed (1): 09/20/00 Date Analyzed (2): 10/05/00

Time Analyzed (1): 0223 Time Analyzed (2): 1306

Instrument ID (1): HP58904C Instrument ID (2): HP58901C

GC Column (1):DB-1701 ID:0.53(mm) GC Column (2):RTX-35 ID:0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK00QC2	091300-B06QC2	09/20/00	10/05/00
02	WVA-TS-01MSB2	001972A-01MSB2	09/20/00	10/05/00
03	WVA-TS-01	001972A-01	09/20/00	10/05/00
04	WVA-TS-X-1	001972A-02	09/20/00	10/05/00
05	WVA-TS-01MS2	001972A-01MS2	09/20/00	10/05/00
06	WVA-TS-01MSD2	001972A-01MSD2	09/20/00	10/05/00
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: STL-CT Contract: _____ Client Id: PBLK04

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Lab sample ID: 091500-B02 Lab File ID: C4065062

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) Y Date Extracted: 09/15/00

Date Analyzed (1): 09/20/00 Date Analyzed (2): _____

Time Analyzed (1): 1347 Time Analyzed (2): ____

Instrument ID (1): HP58904C Instrument ID (2): _____

GC Column (1):DB-1701 ID:0.53(mm) GC Column (2):_____ID:____(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	PBLK04QC2	091500-B02QC2	09/20/00	
02	WVA-TL-01MSB2	001972A-03MSB2	09/20/00	
03	WVA-TL-01	001972A-03	09/21/00	
04	WVA-TL-X-2	001972A-04	09/21/00	
05	FB091100	001972A-05	09/21/00	
06	WVA-TL-01MS2	001972A-03MS2	09/21/00	
07	WVA-TL-01MSD2	001972A-03MSD2	09/21/00	
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS: _____

INSTRUMENT DETECTION LIMITS
Instrument : HP58904C
DB-1701 column
04/04/2000

	IDL ug/L	Quantitation Limit ug/L
4,4'-DDD	0.0293	0.10
4,4'-DDE	0.0037	0.10
4,4'-DDT	0.0215	0.10
Aldrin	0.0086	0.05
alpha-BHC	0.0012	0.05
alpha-Chlordane	0.0141	0.05
beta-BHC	0.0140	0.05
Chlorobenzilate	0.0431	1.0
delta-BHC	0.0097	0.05
Dieldrin	0.0149	0.10
Endosulfan I	0.0030	0.05
Endosulfan II	0.0036	0.10
Endosulfan Sulfate	0.0034	0.10
Endrin	0.0190	0.10
Endrin Aldehyde	0.0183	0.10
Endrin Ketone	0.0080	0.10
gamma-BHC	0.0046	0.05
gamma-Chlordane	0.0089	0.05
Heptachlor	0.0093	0.05
Heptachlor Epoxide	0.0011	0.05
Isodrin	0.0141	0.05
Methoxychlor	0.1038	0.50
Toxaphene	1.475	2.5
Technical Chlordane	0.304	0.50
Aroclor-1221	0.918	2.0
Aroclor-1016	0.226	1.0
Aroclor-1232	0.238	1.0
Aroclor-1242	0.184	1.0
Aroclor-1248	0.168	1.0
Aroclor-1254	0.116	1.0
Aroclor-1260	0.147	1.0

Instrument detection limits are based on a 1000ml Initial Volume and 10ml Final Volume

INSTRUMENT DETECTION LIMITS
Instrument : HP58901C
RTX-35 column
04/09/2000

	IDL ug/L	Quantitation Limit ug/L
4,4'-DDD	0.0278	0.10
4,4'-DDE	0.0021	0.10
4,4'-DDT	0.0148	0.10
Aldrin	0.0101	0.05
alpha-BHC	0.0461	0.05
alpha-Chlordane	0.0056	0.05
beta-BHC	0.0253	0.05
Chlorobenzilate	0.1097	1.0
delta-BHC	0.0031	0.05
Dieldrin	0.0064	0.10
Endosulfan I	0.0073	0.05
Endosulfan II	0.0184	0.10
Endosulfan Sulfate	0.0020	0.10
Endrin	0.0060	0.10
Endrin Aldehyde	0.0044	0.10
Endrin Ketone	0.0019	0.10
gamma-BHC	0.0010	0.05
gamma-Chlordane	0.0014	0.05
Heptachlor	0.0041	0.05
Heptachlor Epoxide	0.0030	0.05
Isodrin	0.0021	0.05
Methoxychlor	0.2012	0.50
Toxaphene	0.076	2.5
Technical Chlordane	0.043	0.50
Aroclor-1221	0.083	2.0
Aroclor-1016	0.050	1.0
Aroclor-1232	0.088	1.0
Aroclor-1242	0.035	1.0
Aroclor-1248	0.014	1.0
Aroclor-1254	0.070	1.0
Aroclor-1260	0.034	1.0

Instrument detection limits are based on a 1000ml Initial Volume and 10ml Final Volume

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TS-01

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): SOIL Lab Sample ID: 001972A-01

Sample wt/vol: 30.3 (g/ml) G Lab File ID: C4065054

% Moisture: 67 decanted: (Y/N) Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/13/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/20/00

Injection Volume: 1.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	200	U
11104-28-2	Aroclor-1221	400	U
11141-16-5	Aroclor-1232	200	U
53469-21-9	Aroclor-1242	200	U
12672-29-6	Aroclor-1248	200	U
11097-69-1	Aroclor-1254	200	U
11096-82-5	Aroclor-1260	550	

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TS-X-1

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): SOIL Lab Sample ID: 001972A-02

Sample wt/vol: 30.7 (g/ml) G Lab File ID: C4065055

% Moisture: 59 decanted: (Y/N) __ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/13/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/20/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	79.	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	79.	U
53469-21-9	Aroclor-1242	79.	U
12672-29-6	Aroclor-1248	79.	U
11097-69-1	Aroclor-1254	79.	U
11096-82-5	Aroclor-1260	340	

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TL-01

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 001972A-03

Sample wt/vol: 1000 (g/ml) ML Lab File ID: C4065078

% Moisture: _____ decanted: (Y/N)__ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/21/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.10	U
11104-28-2	Aroclor-1221	0.23	U
11141-16-5	Aroclor-1232	0.24	U
53469-21-9	Aroclor-1242	0.18	U
12672-29-6	Aroclor-1248	0.10	U
11097-69-1	Aroclor-1254	0.10	U
11096-82-5	Aroclor-1260	0.10	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: WVA-TL-X-2

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 001972A-04

Sample wt/vol: 820 (g/ml) ML Lab File ID: C4065079

% Moisture: _____ decanted: (Y/N)__ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/21/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.12	U
11104-28-2	Aroclor-1221	0.28	U
11141-16-5	Aroclor-1232	0.29	U
53469-21-9	Aroclor-1242	0.22	U
12672-29-6	Aroclor-1248	0.12	U
11097-69-1	Aroclor-1254	0.12	U
11096-82-5	Aroclor-1260	0.12	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: FB091100

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 001972A-05

Sample wt/vol: 850 (g/ml) ML Lab File ID: C4065081

% Moisture: _____ decanted: (Y/N)__ Date Received : 09/12/00

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/21/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.12	U
11104-28-2	Aroclor-1221	0.27	U
11141-16-5	Aroclor-1232	0.28	U
53469-21-9	Aroclor-1242	0.21	U
12672-29-6	Aroclor-1248	0.12	U
11097-69-1	Aroclor-1254	0.12	U
11096-82-5	Aroclor-1260	0.12	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: PBLK00

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): SOIL Lab Sample ID: 091300-B06

Sample wt/vol: 30 (g/ml) G Lab File ID: C4065045

% Moisture: 0 decanted: (Y/N) __ Date Received : _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/13/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/20/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33.	U
11104-28-2	Aroclor-1221	67.	U
11141-16-5	Aroclor-1232	33.	U
53469-21-9	Aroclor-1242	33.	U
12672-29-6	Aroclor-1248	33.	U
11097-69-1	Aroclor-1254	33.	U
11096-82-5	Aroclor-1260	33.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: PBLK04

Lab Code: IEACT Case No.: 1972A SDG No.: A1972

Matrix: (soil/water): WATER Lab Sample ID: 091500-B02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: C4065062

% Moisture: _____ decanted: (Y/N)__ Date Received : _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/15/00

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 09/20/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	0.10	U
11104-28-2	Aroclor-1221	0.23	U
11141-16-5	Aroclor-1232	0.24	U
53469-21-9	Aroclor-1242	0.18	U
12672-29-6	Aroclor-1248	0.10	U
11097-69-1	Aroclor-1254	0.10	U
11096-82-5	Aroclor-1260	0.10	U

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

SOW No.: ILM04.0

Field Sample ID	Lab Sample ID.
WVA-TS-01D	001972A-01D
WVA-TS-01S	001972A-01S
WVA-TS-01	001972A-01
WVA-TS-X-1	001972A-02
WVA-TL-01D	001972A-03D
WVA-TL-01S	001972A-03S
WVA-TL-01	001972A-03
WVA-TL-X-2	001972A-04
FB091100	001972A-05

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: [signature] Name: Daniel W. Helfrich

Date: 10/9/00 Title: Group Leader

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WVA-TS-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): SOIL Lab Sample ID: 001972A-01

Level (low/med): LOW Date Received: 09/12/00

% Solids: 37.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	31.5			P
7440-39-3	Barium	238.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	5.8			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	64.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3210			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.5		*	CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	15.8			P
7440-22-4	Silver	1.4	B		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WVA-TS-X-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): SOIL Lab Sample ID: 001972A-02

Level (low/med): LOW Date Received: 09/12/00

% Solids: 40.9

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	34.0			P
7440-39-3	Barium	538.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	3.7			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	98.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2060			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.95		*	CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	8.1			P
7440-22-4	Silver	1.6	B		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WVA-TL-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-03

Level (low/med): LOW Date Received: 09/12/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.8	B		P
7440-39-3	Barium	186.	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.97	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	12.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	658.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.40			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLOUDY Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

WVA-TL-X-2

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-04

Level (low/med): LOW Date Received: 09/12/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.4	B		P
7440-39-3	Barium	179.	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.98	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	12.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	602.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.29			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB091100

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-05

Level (low/med): LOW Date Received: 09/12/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.5	U		P
7440-39-3	Barium	0.50	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

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_____

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2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic	1000.0	1007.88	100.8	500.0	481.65	96.3	487.50	97.5	P
Barium	1000.0	1001.46	100.1	500.0	495.14	99.0	497.93	99.6	P
Beryllium									NR
Cadmium	1000.0	1038.00	103.8	500.0	491.30	98.3	498.38	99.7	P
Calcium									NR
Chromium	1000.0	1030.71	103.1	500.0	494.06	98.8	502.42	100.5	P
Cobalt									NR
Copper									NR
Iron									NR
Lead	1000.0	1038.29	103.8	500.0	493.31	98.7	503.12	100.6	P
Magnesium									NR
Manganese									NR
Mercury	5.0	5.03	100.6	5.0	4.96	99.2	5.63	112.6	CV
Nickel									NR
Potassium									NR
Selenium	1000.0	1018.07	101.8	500.0	490.56	98.1	497.70	99.5	P
Silver	100.0	99.80	99.8	50.0	48.53	97.1	49.41	98.8	P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				500.0	497.94	99.6	519.41	103.9	P
Barium				500.0	502.23	100.4	509.13	101.8	P
Beryllium									NR
Cadmium				500.0	509.78	102.0	535.05	107.0	P
Calcium									NR
Chromium				500.0	512.90	102.6	532.84	106.6	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				500.0	513.21	102.6	532.40	106.5	P
Magnesium									NR
Manganese									NR
Mercury				5.0	4.34	86.8	5.60	112.0	CV
Nickel									NR
Potassium									NR
Selenium				500.0	499.87	100.0	521.47	104.3	P
Silver				50.0	50.12	100.2	51.57	103.2	P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				500.0	526.57	105.3	534.22	106.8	P
Barium				500.0	511.20	102.2	512.68	102.5	P
Beryllium									NR
Cadmium				500.0	543.62	108.7	548.37	109.7	P
Calcium									NR
Chromium				500.0	540.77	108.2	544.35	108.9	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				500.0	542.59	108.5	546.12	109.2	P
Magnesium									NR
Manganese									NR
Mercury				5.0	5.55	111.0	5.57	111.4	CV
Nickel									NR
Potassium									NR
Selenium				500.0	527.24	105.4	530.50	106.1	P
Silver				50.0	51.56	103.1	52.17	104.4	P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				500.0	533.55	106.7			P
Barium				500.0	513.05	102.6			P
Beryllium									NR
Cadmium				500.0	552.47	110.5			P
Calcium									NR
Chromium				500.0	547.44	109.5			P
Cobalt									NR
Copper									NR
Iron									NR
Lead				500.0	549.22	109.8			P
Magnesium									NR
Manganese									NR
Mercury				5.0	5.59	111.8	5.59	111.8	CV
Nickel									NR
Potassium									NR
Selenium				500.0	530.17	106.0			P
Silver				50.0	52.41	104.8			P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic	1000.0	996.69	99.7	500.0	511.08	102.2	508.22	101.6	P
Barium	1000.0	999.58	100.0	500.0	497.71	99.5	502.44	100.5	P
Beryllium									NR
Cadmium	1000.0	986.95	98.7	500.0	502.42	100.5	502.58	100.5	P
Calcium									NR
Chromium	1000.0	1005.26	100.5	500.0	499.60	99.9	501.17	100.2	P
Cobalt									NR
Copper									NR
Iron									NR
Lead	1000.0	980.13	98.0	500.0	502.36	100.5	503.61	100.7	P
Magnesium									NR
Manganese									NR
Mercury	5.0	4.96	99.2	5.0	5.14	102.8	5.29	105.8	CV
Nickel									NR
Potassium									NR
Selenium	1000.0	982.23	98.2	500.0	516.77	103.4	514.79	103.0	P
Silver	100.0	99.80	99.8	50.0	50.43	100.9	50.74	101.5	P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

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2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				500.0	517.90	103.6	510.12	102.0	P
Barium				500.0	507.28	101.4	501.80	100.4	P
Beryllium									NR
Cadmium				500.0	511.16	102.2	502.91	100.6	P
Calcium									NR
Chromium				500.0	507.05	101.4	499.84	100.0	P
Cobalt									NR
Copper									NR
Iron									NR
Lead				500.0	508.77	101.8	504.94	101.0	P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium				500.0	531.92	106.4	519.60	103.9	P
Silver				50.0	51.56	103.1	51.14	102.3	P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

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2B
CRDL STANDARD FOR AA AND ICP

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

AA CRDL Standard Source: INORG. VENT.

ICP CRDL Standard Source: INORG. VENT.

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R(1)	True	Initial Found	%R(1)	Final Found	%R(1)
Aluminum								
Antimony								
Arsenic				20.0	20.75	103.8	20.53	102.7
Barium								
Beryllium								
Cadmium				10.0	10.77	107.7	11.13	111.3
Calcium								
Chromium				20.0	21.17	105.9	21.83	109.2
Cobalt								
Copper								
Iron								
Lead				6.0	6.45	107.6	6.43	107.2
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium				10.0	8.10	81.0	10.29	102.9
Silver				20.0	20.81	104.1	20.99	105.0
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

AA CRDL Standard Source: INORG. VENT.

ICP CRDL Standard Source: INORG. VENT.

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R(1)	True	Initial Found	%R(1)	Final Found	%R(1)
Aluminum								
Antimony						92.1		98.2
Arsenic				20.0 ~~5.0~~	18.42	~~368.4~~	19.85	~~397.0~~
Barium								
Beryllium								
Cadmium				10.0	10.22	102.2	10.34	103.4
Calcium								
Chromium				20.0	20.54	102.7	20.61	103.1
Cobalt								
Copper								
Iron						111.5		105.7
Lead				6.0 ~~4.0~~	6.69	~~167.5~~	6.34	~~158.6~~
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium				10.0	7.26	72.6	7.54	75.5
Silver				20.0	20.68	103.4	20.37	101.9
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

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3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prep-aration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	3.1	U	3.1	U	3.1	U	3.1	U	0.620	U	P
Barium	0.1	U	0.1	U	0.1	U	0.1	U	0.020	U	P
Beryllium											NR
Cadmium	0.2	U	0.2	U	0.2	U	0.2	U	0.040	U	P
Calcium											NR
Chromium	0.3	U	-0.3	B	-0.4	B	0.3	U	0.073	B	P
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.3	U	1.3	U	1.3	U	1.3	U	0.260	U	P
Magnesium											NR
Manganese											NR
Mercury	-0.2	B	-0.1	B	0.1	U	0.1	U	0.001	U	CV
Nickel											NR
Potassium											NR
Selenium	1.6	B	1.5	U	1.5	U	-1.6	B	0.300	U	P
Silver	0.3	U	-0.5	B	-0.5	B	0.3	U	0.060	U	P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			3.1	U	3.1	U	3.1	U	2.500	U	P
Barium			0.1	U	0.1	U	0.1	U	0.500	U	P
Beryllium											NR
Cadmium			0.2	U	0.2	U	0.2	U	0.500	U	P
Calcium											NR
Chromium			0.3	U	0.3	U	0.3	U	1.000	U	P
Cobalt											NR
Copper											NR
Iron											NR
Lead			1.3	U	1.3	U	1.3	U	2.000	U	P
Magnesium											NR
Manganese											NR
Mercury			0.1	U	0.1	U	0.1	U	0.100	U	CV
Nickel											NR
Potassium											NR
Selenium			-2.4	B	1.5	U	-2.1	B	5.000	U	P
Silver			-0.4	B	0.3	U	0.3	U	1.000	U	P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prep-aration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			3.1U								P
Barium			0.1U								P
Beryllium											NR
Cadmium			0.2U								P
Calcium											NR
Chromium			0.3U								P
Cobalt											NR
Copper											NR
Iron											NR
Lead			1.3U								P
Magnesium											NR
Manganese											NR
Mercury			0.1U		0.1U						CV
Nickel											NR
Potassium											NR
Selenium			-2.8B								P
Silver			0.3U								P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	2.5	U	2.5	U	2.5	U	2.5	U			P
Barium	0.5	U	0.5	U	0.5	U	0.5	U			P
Beryllium											NR
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U			P
Calcium											NR
Chromium	1.0	U	1.0	U	1.0	U	1.0	U			P
Cobalt											NR
Copper											NR
Iron											NR
Lead	2.0	U	2.0	U	2.0	U	2.0	U			P
Magnesium											NR
Manganese											NR
Mercury	0.1	U	0.1	U	0.1	U					CV
Nickel											NR
Potassium											NR
Selenium	5.0	U	5.0	U	5.0	U	5.0	U			P
Silver	1.0	U	1.0	U	1.0	U	1.0	U			P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			2.5U								P
Barium			0.5U								P
Beryllium											NR
Cadmium			0.5U								P
Calcium											NR
Chromium			1.0U								P
Cobalt											NR
Copper											NR
Iron											NR
Lead			2.0U								P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			5.0U								P
Silver			1.0U								P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

ID Number: JA61 ICS Source: EPA-LV87

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000							
Antimony								
Arsenic		100	0	107.5	107.5	0	102.5	102.5
Barium		500	2	555.9	111.1	2	544.7	108.9
Beryllium								
Cadmium		1000	1	953.5	95.3	2	924.7	92.4
Calcium	500000							
Chromium		500	1	504.6	100.9	1	489.9	97.9
Cobalt								
Copper								
Iron	200000							
Lead		50	-6	42.1	84.3	-4	40.8	81.6
Magnesium	500000							
Manganese								
Mercury								
Nickel								
Potassium								
Selenium		50	-24	36.3	72.6	-16	38.9	77.9
Silver		200	0	232.8	116.4	0	228.7	114.3
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

ID Number: JA61E ICS Source: EPA-LV87

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000							
Antimony		100	-8	91.8	91.8	-8	92.2	92.2
Arsenic		500	1	475.3	95.0	1	480.0	96.0
Barium								
Beryllium		1000	4	885.3	88.5	3	945.6	94.5
Cadmium	500000							
Calcium		500	1	452.2	90.4	1	476.3	95.2
Chromium								
Cobalt								
Copper	200000							
Iron		50	2	51.4	102.9	4	52.2	104.5
Lead	500000							
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium		50	1	59.2	118.4	3	55.5	111.1
Selenium		200	0	199.5	99.7	0	204.8	102.4
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WVA-TL-01S

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic	75-125	41.4621		3.7650	B	40.00	94.2		P
Barium	75-125	2117.6170		185.9804	B	2000.00	96.6		P
Beryllium									NR
Cadmium	75-125	5.7200		0.9694	B	5.00	95.0		P
Calcium									NR
Chromium	75-125	200.8118		12.7374		200.00	94.0		P
Cobalt									NR
Copper									NR
Iron									NR
Lead		676.0790		657.5173		20.00	92.8		P
Magnesium									NR
Manganese									NR
Mercury	75-125	1.3700		0.4040		1.00	96.6		CV
Nickel									NR
Potassium									NR
Selenium	75-125	7.8368		5.0000	U	10.00	78.4		P
Silver	75-125	48.5999		1.0000	U	50.00	97.2		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

WVA-TS-01S

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 37.52

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic	75-125	45.5768		31.5159		17.77	79.1		P
Barium	75-125	1140.9839		238.2013		888.42	101.6		P
Beryllium									NR
Cadmium	75-125	8.1498		5.7984		2.22	105.9		P
Calcium									NR
Chromium	75-125	156.6282		64.5744		88.84	103.6		P
Cobalt									NR
Copper									NR
Iron									NR
Lead		2629.5460		3211.2007		8.88	-6547.1		P
Magnesium									NR
Manganese									NR
Mercury		1.2524		1.4840		0.15	-153.0		CV
Nickel									NR
Potassium									NR
Selenium	75-125	15.8951		15.8017		4.44	2.1		P
Silver	75-125	23.3234		1.3782	B	22.21	98.8		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

WVA-TL-01D

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic		3.7650	B	3.7902	B	0.7		P
Barium		185.9804	B	188.8199	B	1.5		P
Beryllium								NR
Cadmium		0.9694	B	1.0916	B	11.9		P
Calcium								NR
Chromium	.0	12.7374		11.9685		6.2		P
Cobalt								NR
Copper								NR
Iron								NR
Lead		657.5173		669.9544		1.9		P
Magnesium								NR
Manganese								NR
Mercury	.0	0.4040		0.3300		20.2		CV
Nickel								NR
Potassium								NR
Selenium		5.0000	U	5.0000	U			P
Silver		1.0000	U	1.0000	U			P
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

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6
DUPLICATES

EPA SAMPLE NO.

WVA-TS-01D

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 37.52 % Solids for Duplicate: 37.52

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic		31.5159		28.0006		11.8		P
Barium	30.2	238.2013		237.1286		0.4		P
Beryllium								NR
Cadmium	0.7	5.7984		6.0084		3.6		P
Calcium								NR
Chromium		64.5744		63.6923		1.4		P
Cobalt								NR
Copper								NR
Iron								NR
Lead		3211.2007		3167.3543		1.4		P
Magnesium								NR
Manganese								NR
Mercury		1.4840		0.8586		53.4	*	CV
Nickel								NR
Potassium								NR
Selenium		15.8017		15.6935		0.7		P
Silver		1.3782	B	1.3958	B	1.3		P
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Solid LCS Source: _____

Aqueous LCS Source: INORG. VENT.

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic	1000.0	1070.19	107.0						
Barium	300.0	309.00	103.0						
Beryllium									
Cadmium	300.0	309.92	103.3						
Calcium									
Chromium	300.0	305.88	102.0						
Cobalt									
Copper									
Iron									
Lead	1000.0	1036.44	103.6						
Magnesium									
Manganese									
Mercury	5.0	5.15	103.0						
Nickel									
Potassium									
Selenium	500.0	568.14	113.6						
Silver	300.0	312.20	104.1						
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Total Metals

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1972

Solid LCS Source: INORG, VENT.

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic				136.0	148.8		101.0	171.0	109.5
Barium				124.0	130.0		95.3	152.0	104.9
Beryllium									
Cadmium				118.0	127.8		90.4	145.0	108.3
Calcium									
Chromium				89.3	93.3		71.3	107.0	104.6
Cobalt									
Copper									
Iron									
Lead				138.0	148.2		105.0	170.0	107.4
Magnesium									
Manganese									
Mercury				2.4	2.1		1.6	3.2	100.0
Nickel									
Potassium									
Selenium				87.6	107.5		64.9	110.0	122.7
Silver				119.0	123.5		88.8	150.0	103.8
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

COVER PAGE - WET CHEM ANALYSES DATA PACKAGE

Lab Name: STL Contract:

Lab Code: STL Case No.: 1972A SAS No.: SDG No.: A1972

SOW No.:

Sample No.	Lab Sample ID
WVA-TS-01	001972A-01
WVA-TS-X-1	001972A-02
WVA-TL-01	001972A-03
WVA-TL-X-2	001972A-04
FB091100	001972A-05

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: David W. Hatfield

Date: 10/3/00 Title: Group Leader

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TS-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): SOIL Lab Sample ID: 001972A-01

% Solids: 37.5 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.27	U	mg/Kg		L

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TS-X-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): SOIL Lab Sample ID: 001972A-02

% Solids: 40.9 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.16	U	mg/Kg		L

Comments:

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TL-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-03

% Solids: 0 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	10.0	U	ug/L	N	L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

WVA-TL-X-2

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-04

% Solids: 0 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	10.0	U	ug/L		L

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FB091100

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix (soil/water): WATER Lab Sample ID: 001972A-05

% Solids: 0 Date Received: 09/12/00

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	10.0	U	ug/L		L

Comments:

FORM I - WC

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte	Initial Calibration			Continuing Calibration					units	M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)		
Cyanide, Total	150	144.	96.0	100	98.7	98.7	101.	101.	ug/L	L

Control Limits: All Analytes 85-115

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte	Initial Calibration			Continuing Calibration					units	M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)		
Cyanide, Total	150			100	100.	100.	100.	100.	ug/L	L

Control Limits: All Analytes 85-115

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	units	M
Cyanide, Total	150			100	100.	100.	102.	102.	ug/L	L

Control Limits: All Analytes 85-115

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte	Initial Calibration			Continuing Calibration					units	M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)		
Cyanide, Total	150			100	101.	101.	100.	100.	ug/L	L

Control Limits: All Analytes 85-115

WET CHEM ANALYSIS

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte	Initial Calib. Blank	C	Continuing Calibration Blank 1	C	2	C	3	C	Prepa-ration Blank	C	units	M
Cyanide, Total	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	ug/L	L
Cyanide, Total									0.500	U	mg/Kg	L

WET CHEM ANALYSIS

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte	Initial Calib. Blank	C	Continuing Calibration Blank 1	C	2	C	3	C	Prepa-ration Blank	C	units	M
Cyanide, Total			10.0	U	10.0	U	10.0	U				L

WET CHEM ANALYSIS

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte	Initial Calib. Blank	C	Continuing Calibration Blank 1	C	2	C	3	C	Prepa-ration Blank	C	units	M
Cyanide, Total			10.0	U	10.0	U						L

4A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

WVA-TS-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: SOIL

% Solids for Sample: 37.5

MSH 10/06/00

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	Units	M
Cyanide, Total	75-125	1.29	U	1.27	U	5.18	-24.9	~~N~~	mg/Kg	L

Comments:

FORM IV (PART 1) - WC

4A

SPIKE SAMPLE RECOVERY

SAMPLE NO.

WVA-TL-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1 SAS No.: _ SDG No.: A

Matrix: WATER

% Solids for Sample: 0

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	Units	M
Cyanide, Total	75-125	29		10	U	40	72.5	N	ug/L	L

Comments:

4B

SAMPLE NO.

POST DIGEST SPIKE SAMPLE RECOVERY

WVA-TS-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Matrix: SOIL

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	Units	M
Cyanide, Total	75-125	4.4		1.27	U	5.18	84.9		mg/Kg	L

Comments:

FORM IV (PART 2) - WC

4B

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

WVA-TL-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1 SAS No.: _ SDG No.: A

Matrix: SOIL

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	Units	M
Cyanide, Total	75-125	40.1		10	U	40	100.2		ug/L	L

Comments:

5
DUPLICATES

SAMPLE NO.

WVA-TS-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

% Solids for Sample: 37.5 % Solids for Duplicate: 37.5

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Units	M
Cyanide, Total	20	1.27	U	1.29	U			mg/Kg	L

FORM V - WC

5
DUPLICATES

SAMPLE NO.

WVA-TL-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

% Solids for Sample: 0 % Solids for Duplicate: 0

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Units	M
Cyanide, Total	20	10	U	10	U			ug/L	L

FORM V - WC

LABORATORY CONTROL SAMPLE

Lab Name: STL Contract:

Lab Code: STL Case No.: 1972A SAS No.: SDG No.: A1972

Analyte	True	LCS Found	%R	units	LCS Source
Cyanide, Total	150	144	96	ug/L	STL

LABORATORY CONTROL SAMPLE

Lab Name: STL Contract:

Lab Code: STL Case No.: 1972A SAS No.: SDG No.: A1972

Analyte	True	LCS Found	%R	units	LCS Source
Cyanide, Total	151	165	109.3	mg/Kg	

HOLD TIME REPORT

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1972A SAS No.: _____ SDG No.: A1972

Analyte : Cyanide, Total

Client Sample ID	Date Received	Date Prepped	Date Analyzed
WVA-TL-01	09/12/00	09/20/00	09/22/00 00:00
WVA-TL-01	09/12/00	09/20/00	09/22/00 00:00
WVA-TL-01	09/12/00	09/20/00	09/22/00 00:00
WVA-TL-X-2	09/12/00	09/20/00	09/22/00 00:00
FB091100	09/12/00	09/20/00	09/22/00 00:00
WVA-TS-01	09/12/00	09/20/00	09/22/00 00:00
WVA-TS-01	09/12/00	09/20/00	09/22/00 00:00
WVA-TS-01	09/12/00	09/20/00	09/22/00 00:00
WVA-TS-X-1	09/12/00	09/20/00	09/22/00 00:00