

Analytic & Biological
Laboratories, Inc.

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24350 INDOPLEX CIRCLE ■ FARMINGTON HILLS, MICHIGAN 48331 ■ PHONE: (313) 477-6666 ■ FAX: (313) 477-4604

REPORT OF ANALYSIS

Date: October 2, 1989

Submitted by: PEI ASSOCIATES
11499 CHESTER RD.
CINCINNATI, OH 45246
ATTN: PAUL KEFAUVER

Analysis Requested: Two samples submitted for chemical analysis.

Date Received: 9-25-89

Sample ID: see attached

Method of Analysis: "EPA Office of Water & Waste Management, Washington, D.C. 20460-SW-846, 1980." Test methods for Evaluating Solid Waste Physical/Chemical Methods. (Waste)

Results: see attached

ANALYTIC AND BIOLOGICAL LABORATORIES, INC.

Francis B. McLaughlin, FAIC
Director of Laboratories

cc: files

EPA Region 5 Records Ctr.



233458

CERTIFIED LABORATORY — U.S. DEPARTMENT OF AGRICULTURE
U.S. DRUG ENFORCEMENT ADMINISTRATION
UNITED STATES FOOD AND DRUG METHODOLOGY
UNITED STATES NUCLEAR REGULATORY COMMISSION
AMERICAN COUNCIL OF INDEPENDENT LABORATORIES
INSTITUTE OF FOOD TECHNOLOGISTS



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SAMPLE NO: 30271

PEI ASSOCIATES
11499 CHESTER RD
CINCINNATI, OH 45246

MR. KEFAUVER

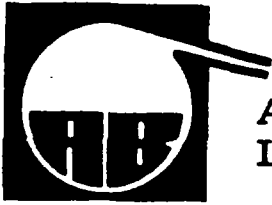
SAMPLE DESCRIPTION: P-141

RECEIVED
09-25-89

WATER SAMPLE

Acetone	<10	ppm
n-Butyl Alcohol	18	ppm
Carbon disulfide	<10	ppm
Carbon tetrachloride	<10	ppm
Chlorobenzene	<10	ppm
Cyclohexanone	<10	ppm
1,2 - Dichlorobenzene	<10	ppm
Ethyl acetate	<10	ppm
Ethylbenzene	<10	ppm
Ethyl ether	<10	ppm
Isobutanol	<10	ppm
Methanol	<10	ppm
Methylene chloride	<10	ppm
Methyl ethyl ketone	38	ppm
Methyl isobutyl ketone	<10	ppm
Pyridine	<10	ppm
Tetrachloroethylene	<10	ppm
Toluene	<10	ppm
1,1,1 - Trichloroethane	<10	ppm
1,1,2-Trichloro-1,2,2- trifluoroethane	<10	ppm





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WATER SAMPLE

Trichloroethylene	<10	ppm
Trichlorofluoromethane	<10	ppm
Xylene	32	ppm
TOTAL MICHIGAN METALS	.	
Arsenic	<0.02	ppm
Barium	2.0	ppm
Cadmium	<0.012	ppm
Chromium	0.66	ppm
Copper	0.33	ppm
Lead	2.9	ppm
Mercury	<0.10	ppm
Selenium	<0.30	ppm
Silver	<0.20	ppm
Zinc	4.6	ppm
Nickel	<0.06	ppm
Ash 600 C	0.12	%
Nickel Eptox	<0.015	ppm
Cyanide, Free	<0.2	ppm
Cyanide, Total	<0.2	ppm
Total Halogen Scan	<100	ppm
Nitrogen, Organic	41.46	ppm





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WATER SAMPLE

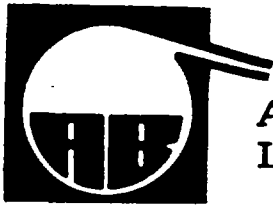
pH	6.92	units
Phenols	0.52	ppm
Solids, Total	0.3	%
Sulfide	<10	ppm
Sulfur	<100	ppm
Water	99.7	%

VOLATILES

LEVEL OF DETECTION < 1 ppm

Acrolein	None Detected
Acrylonitrile	None Detected
Benzene	None Detected
Bis (Chloromethyl) Ether	None Detected
Bromoform	None Detected
Carbon Tetrachloride	None Detected
Clorobenzene	None Detected
Clorodibromomethane	None Detected
Chloroethane	None Detected
2-Chloroethylvinyl Ether	None Detected
Chloroform	None Detected
Dichlorobromomethane	None Detected
Dichlorodiflouromethane	None Detected
1,1-Dichloroethane	None Detected





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WATER SAMPLE

1,2-Dichloroethane	None Detected
1,1-Dichloroethylene	None Detected
1,2-Dichloropropane	None Detected
1,2-Dichloroethylene	None Detected
Ethylbenzene	None Detected
Methyl Bromide	None Detected
Methylene Chloride	None Detected
1,1,2,2 Tetrachloroethane	None Detected
Tetrachloroethene	None Detected
Toluene	None Detected
1,2-Trans-dichloroethylene	None Detected
1,1,1-Trichloroethane	None Detected
1,1,2-Trichloroethane	None Detected
Trichloroethene	None Detected
Trichlorofluoromethane	None Detected
Vinyl Chloride	None Detected

METALS
Arsenic

.
<0.05

ppm





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WATER SAMPLE

Barium	0.050	ppm
Cadmium	<0.003	ppm
Copper	0.042	ppm
Chromium	0.042	ppm
Cyanide	<0.2	ppm
Lead	0.67	ppm
Mercury	<0.025	ppm
Selenium	<0.075	ppm
Silver	<0.050	ppm
Zinc	2.1	ppm
PCB Water Analysis	<1.0	ppm

SEMIVOLATILES COMPOUNDS

PCB

LEVEL OF DETECTION < 1 ppm

ALL OTHER COMPOUNDS

LEVEL OF

PESTICIDES (p) LOD

LEVEL OF DETECTION <1 ppm

Acenaphthene

None Detected

Acenaphthene-d 10 (I.S.)

None Detected

Acenaphthylene

None Detected

Acetophenone

None Detected

Aldrin (p)

<1.0 ppm

Aniline

None Detected

Anthracene

None Detected

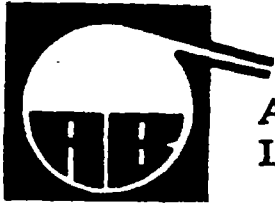
4-Aminobiphenyl

None Detected

Aroclor-1016 (p)

<1.0 ppm





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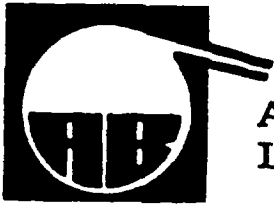
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Aroclor-1221 (p)	<1.0	ppm
Aroclor-1232 (p)	<1.0	ppm
Aroclor-1242 (p)	<1.0	ppm
Aroclor-1248 (p)	<1.0	ppm
Aroclor-1254 (p)	<1.0	ppm
Aroclor-1260 (p)	<1.0	ppm
Benzidine	None Detected	
Benzoic Acid	None Detected	
Benzo (a) anthracene	None Detected	
Benzo (b) fluoranthene	None Detected	
Benzo (k) flucranthene	None Detected	
Benzo (g,h,i) perylene	None Detected	
Benzo (a) pyrene	None Detected	
Benzyl alcohol	None Detected	
a-BHC (p)	<1.0	ppm
b-BHC (p)	<1.0	ppm
g-BHC (p)	<1.0	ppm
BHC (Lindane) (p)	<1.0	ppm
Bis (2-chloroethox)methane	None Detected	
Bis (2-chloroethyl) ether	None Detected	
Bis(2chloroisopropyl)ether	None Detected	





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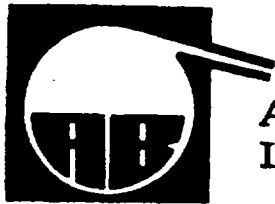
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WATER SAMPLE

Bis(2-ethylhexyl)phthalate	None Detected	
4-Bromophenyl phenyl ether	None Detected	
Butyl benzyl phthalate	None Detected	
Chlordane (p)	<1.0	ppm
4-Chloroaniline	None Detected	
1-Chloronaphthalene	None Detected	
2-Chloronaphthalene	None Detected	
4-Chloro-3-methylphenol	None Detected	
2-Chlorophenol	None Detected	
4-Chlorophenyl phenylether	None Detected	
Chrysene	None Detected	
Chrysene-d 12 (I.S.)	None Detected	
4,4' -DDD (p)	<1.0	ppm
4,4' -DDE (p)	<1.0	ppm
4,4' -DDT (p)	<1.0	ppm
Dibenz (a,j) acridine	None Detected	
Dibenz (a,h) anthracene	None Detected	
Dibenzofuran	None Detected	
Di-n-butylphthalate	None Detected	
1,3-Dichlorobenzene	None Detected	
1,4-Dichlorobenzene	None Detected	





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1,4-Dichlorobenzene-d 4	None Detected	
1,2-Dichlorobenzene	None Detected	
3,3-Dichlorobenzidine	None Detected	
2,4-Dichlorophenol	None Detected	
2,6-Dichlorophenol	None Detected	
Dieldrin (p)	<1.0	ppm
Diethylphthalate	None Detected	
p-Dimethylaminoazobenzene	None Detected	
7,12-Dimethylbenz(a)anthra	None Detected	
a-a-Dimethylphenethylamine	None Detected	
2,4-Dimethylphenol	None Detected	
Dimethylphthalate	None Detected	
4,6-Dinitro-2-methylphenol	None Detected	
2,4-Dinitrophenol	None Detected	
2,4-Dinitrotoluene	None Detected	
2,6-Dinitrotoluene	None Detected	
Diphenylamine	None Detected	
1,2-Diphenylhydrazine	None Detected	
Di-n-octylphthalate	None Detected	
Endosulfan I (p)	<1.0	ppm
Endosulfan II (p)	<1.0	ppm





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Endosulfan sulfate (p)	<1.0	ppm
Endrin (p)	<1.0	ppm
Endrin aldehyde (p)	<1.0	ppm
Endrin ketone (p)	<1.0	ppm
Ethyl methanesulfonate	None Detected	
Fluoranthene	None Detected	
Fluorene	None Detected	
2-Fluorobiphenyl (surr.)	None Detected	
2-Fluorophenol (surr.)	None Detected	
Heptachlor (p)	<1.0	ppm
Heptachlor epoxide (p)	<1.0	ppm
Hexachlorobenzene	None Detected	
Hexachlorobutadiene	None Detected	
Hexachlorocyclopentadiene	None Detected	
Hexachloroethane	None Detected	
Indene(1,2,3-cd)pyrene	None Detected	
Isophorone	None Detected	
Methoxychlor (p)	<1.0	ppm
3-Methyl methanesulfonate	None Detected	
Methyl methanesulfonate	None Detected	
2-Methylnaphthalene	None Detected	





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2-Methylphenol	None Detected
4-Methylphenol	None Detected
Naphthalene	None Detected
Nephthalene-d 8 (I.S.)	None Detected
1-Naphthylamine	None Detected
2-Naphthylamine	None Detected
2-Nitroaniline	None Detected
3-Nitroaniline	None Detected
4-Nitroaniline	None Detected
Nitrobenzene	None Detected
Nitrobenzene-d 5 (surr.)	None Detected
2-Nitrophenol	None Detected
4-Nitrophenol	None Detected
N-Nitroso-di-n-butylamine	None Detected
N-Nitrosodimethylamine	None Detected
N-Nitrosodiphenylamine	None Detected
N-Nitroso-di-N-propylamine	None Detected
N-Nitrosopiperidine	None Detected
Pentachlorobenzene	None Detected
Pentachloronitrobenzene	None Detected
Pentachlorophenol	None Detected





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Perylene-d 12 (I.S.)	None Detected	
Phenacetin	None Detected	
Phenanthrene	None Detected	
Phenanthrene-d 10 (I.S.)	None Detected	
Phenol	None Detected	
Phenol-d 6 (surr.)	None Detected	
2-Picoline	None Detected	
Pronamide	None Detected	
Pyrene	None Detected	
Terphenyl-d 14 (surr.)	None Detected	
1,2,4,5-Tetrachlorobenzene	None Detected	
2,3,4,6-Tetrachlorophenol	None Detected	
2,4,6-Tribromophenol(surr)	None Detected	
1,2,4-Trichlorobenzene	None Detected	
2,4,5-Trichlorophenol	None Detected	
2,4,6-Trichlorophenol	None Detected	
Toxaphene (p)	<1.0	ppm
BTU	<100 BTU	/lb
Specific Gravity	.9934	gm/ml
Flashpoint	No Flash up to 200 d F	

