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US EPA RECORDS CENTER REGION 5
546982

Monroe
1981

erg

LABORATORY ANALYSIS REPORT

Submitted to:

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Report Date: August 21, 1981

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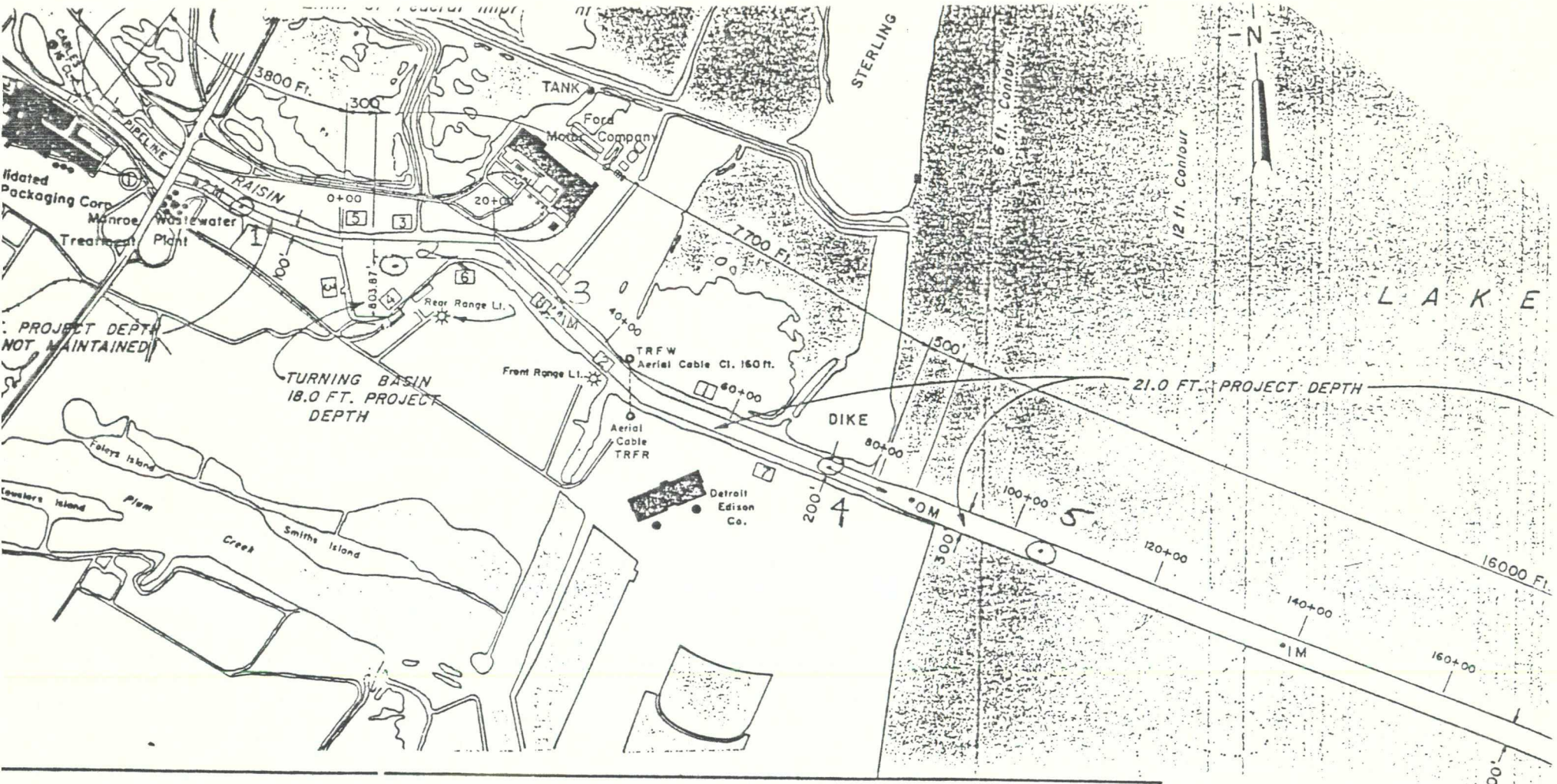
ERG Project Number: 7886

Rerun of Sediment Samples for PCB by GC/MS.

	Sediment Sample #	PCB 1242+1248	PCB 1254	Total PCB
WWTP	1	4.5	1.7	= 6.2
Turning Basin	2	7.9	3.2	= 11.1
River channel	3	14.5	4.3	= 18.8
River mouth	4	0.46	0.3	= .76
Lake channel	5	1.1	1.0	= 2.1

All units mg/Kg.

Detection limit = 0.3 mg/Kg.



LEGEND

WATERFRONT OWNERSHIP

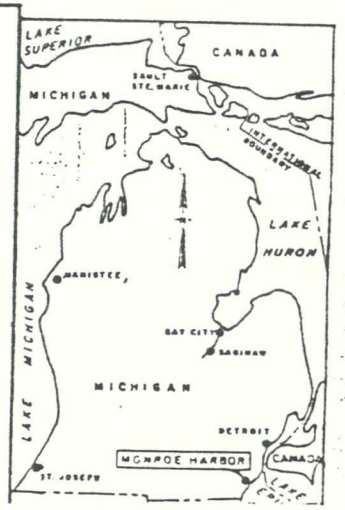
SHOWN THUS [2]

(O) INDICATES OWNER

(L) INDICATES LESSEE

1.	FORD MOTOR CO.	(O)
2.	DUNDEE CEMENT CO.	(O)
3.	CONSOLIDATED PACKAGING CORP.	(O)
4.	MONROE PORT COMMISSION	(O)
5.	UNION CAMP CORP.	(O)
6.	E.R.A.	(L)
7.	DETROIT EDISON CO.	(O)
8.	MONROE PORT COMISSION	(O)

Project depths and elevations are referred to International Great Lakes Datum (1955) for Lake Erie Elevation 568.6 ft. above Mean Water Level (M.W.L.) at Father Point, Quebec.



Parameters and Units	Sta 1	Sta 2	Sta 3	4	Sta 5
arsenic, mg/kg	7.6	6.7	7.0	4.8	5.4
cadmium, mg/kg ← OK	1.2	1.2	1.7	1.7	2.2
carbon, total organic, mg/kg	70,000	33,000	37,000	24,000	25,000
chromium, mg/kg	68	44	94	46	34
coliform bacteria, fecal, TC/gm	<1	<1	<1	<1	<1
copper, mg/kg	98	130	350	130	89
cyanide, mg/kg	0.02	0.4	0.7	0.3	0.2
iron, mg/kg	24,000	25,000	32,000	25,000	26,000
lead, mg/kg	220	71	72	39	39
manganese, mg/kg	220	440	600	410	470
mercury, mg/kg	0.31	0.25	0.35	0.27	0.25
nickel, mg/kg	35	38	66	41	39
nitrogen, ammonia, mg/kg	280	200	150	150	140
nitrogen, total Kjeldahl, mg/kg	1200	1700	1400	1600	1300
oil and grease, %	0.13	0.13	0.09	0.05	0.04
oxygen demand, chemical, mg/kg	7830	6530	6790	6330	4570
PCB, total, mg/kg	6.2	20.0	28.0	1.6	0.84
PCB 1242	6.2	20.0	28.0	1.6	0.84
PCB 1248	ND	ND	ND	ND	ND
PCB 1254	ND	ND	ND	ND	ND
PCB 1260	ND	ND	ND	ND	ND
phenols, mg/kg	0.9	<0.2	<0.1	<0.1	<0.1
phosphorous, mg/kg	450	780	480	320	240
solids, total, %	44.5	47.2	44.4	53.2	43.4
solids, total volatile, %	6.0	5.4	5.3	4.7	3.6
zinc, mg/kg	1600	370	460	230	220
grain size					
>2.0 mm, %	50.0	9.3	2.2	6.7	1.4
>0.43 mm, %	66.3	29.8	17.4	16.0	13.2
>0.25 mm, %	73.8	43.3	25.7	23.5	22.0
>0.075 mm, %	85.1	68.1	39.5	49.8	45.9
<0.075 mm, %	14.9	31.9	60.5	50.2	54.1
in-situ characteristics					
density, in-place, gm/cm³	1.1	1.2	1.3	1.3	1.3
Eh, mv	+130	+52	+99	+290	+109
pH, s.u.	7.4	7.1	7.3	7.2	7.5

[illegible] Raisin Elutriates - Sampled 29 April 1981

Parameters and Units	Station 1 a	Station 1 b	Station 2 a	Station 2 b	Station 3 a	Station 3 b
arsenic, mg/L	0.004	0.004	0.005	0.004	0.005	0.004
cadmium, mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	0.006
carbon, total organic, mg/L	5100	1900	500	1600	4800	1500
chromium, mg/L	<0.005	0.008	0.01	0.006	<0.005	<0.01
copper, mg/L	<0.005	0.009	<0.005	0.007	0.007	<0.005
cyanide, mg/L	0.02	0.02	0.03	0.02	0.02	0.03
iron, mg/L	1.6	1.3	2.1	0.13	3.7	<0.003
lead, mg/L	<0.01	0.013	<0.01	<0.01	<0.01	0.27
manganese, mg/L	0.62	0.56	0.80	0.66	1.1	<0.01
mercury, mg/L	0.0004	0.003	0.0002	0.0006	0.0002	0.0018
nickel, mg/L	<0.01	<0.01	<0.01	0.011	<0.01	0.92
nitrogen, ammonia, mg/L	40	36	28	30	22	18
nitrogen, total Kjeldahl, mg/L	400	200	92	280	420	180
oil and grease, mg/L	<1	<1	7.0	5.0	19.0	5.0
oxygen demand, chemical, mg/L	2000	5600	1700	2400	1440	6400
PCB, total, µg/L	1.3	1.7	1.2	0.95	1.3	19.0
PCB 1242	1.3	1.7	1.2	0.95	1.3	9.0
PCB 1248	ND	ND	ND	ND	ND	ND
PCB 1254	ND	ND	ND	ND	ND	ND
PCB 1260	ND	ND	ND	ND	ND	10.0
phenols, mg/L	0.05	0.009	0.004	0.009	0.01	0.004
phosphorous, total, mg/L	120	60	28	82	220	58
phosphorous, dissolved, mg/L	—	—	—	—	—	—
solids, dissolved, mg/L	480	470	460	460	470	520
solids, suspended, mg/L	—	—	—	—	—	—
zinc, mg/L	0.29	0.26	0.27	0.28	0.25	0.093

Niagara Basin Effluents - Sample 1 27 April 1981

Parameters and Units	Station 4 a	Station 4 b	Station 5 a	Station 5 b	Station (Station
arsenic, mg/L	0.007	0.026	0.026	0.022	<0.
cadmium, mg/L	<0.005	<0.005	0.003	<0.003	<0.
carbon, total organic, mg/L	62	110	360	80	5
chromium, mg/L	<0.01	<0.01	<0.005	<0.005	<0.
copper, mg/L	<0.005	<0.005	<0.005	<0.005	<0.
cyanide, mg/L	0.01	0.01	0.01	<0.01	<0.
iron, mg/L	<0.003	<0.003	2.0	0.18	<0.
lead, mg/L	0.27	<0.01	<0.01	<0.01	<0.
manganese, mg/L	<0.01	ND	0.76	0.68	<0.
mercury, mg/L	0.0003	0.0002	0.0002	0.0002	<0.
nickel, mg/L	0.44	0.55	<0.01	<0.01	<0.
nitrogen, ammonia, mg/L	18	21	15	13	0.1
nitrogen, total Kjeldahl, mg/L	24	34	130	24	1.4
oil and grease, mg/L	5.0	2.0	7.0	13.0	<1
oxygen demand, chemical, mg/L	150	460	1800	380	16
PCB, total, µg/L	0.86	7.34	ND	0.32	ND
PCB, 1242	0.86	0.64	ND	0.32	ND
PCB, 1248	ND	ND	ND	ND	ND
PCB, 1254	ND	ND	ND	ND	ND
PCB, 1260	ND	6.7	ND	ND	ND
phenols, mg/L	0.01	0.02	<0.004	<0.004	<0.0
phosphorus, total, mg/L	2.2	24	24	3.0	0.23
phosphorous, dissolved, mg/L	—	—	—	—	<0.0
solids, dissolved, mg/L	340	390	290	280	200
solids, suspended, mg/L	—	—	—	—	25.0
zinc, mg/L	0.46	0.11	0.095	0.073	<0.00