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July 14, 2003

Ms. Eileen L. Furey
Associate Regional Counsel (C-14J)
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Boulevard
Chicago, IL 60604-3507

Re: Allied Paper/Portage Creek/Kalamazoo River Superfund Site in Kalamazoo and Allegan Counties, Michigan

Dear Ms. Furey:

I recently came across the enclosed additional materials responsive to USEPA's March 28, 2003 Request for Information.

Please accept these as supplemental to our May 30, 2003 submission on behalf of the City of Plainwell.

Please call if you have any questions.

Sincerely,

LEWIS REED & ALLEN P.C.

Michael B. Ortega

MBO:kjn
Enclosure
cc: Mr. Pond w/enclosures
Mr. Wilson w/enclosures

G:\M B O\Plainwell, City of\104e Response\Furey, Eileen letter of June 14, 2003 enclosing supplemental documents to the Response to Request for Information.wpd

MICHIGA. DEPARTMENT OF NATURAL ESOURCES

INTEROFFICE COMMUNICATION

RECEIVED
SEP 22 1976
Water Qual. Control

To: Karl Zollner & Ken Burda

Subject: Plainwell WWTP

From: Richard Christensen

Date: September 22, 1976

Attached for your review and comment is the final draft of the report on the survey conducted at Plainwell WWTP on August 9-10, 1976. Please make your comments to me by September 30, 1976. On that date correction will be made to the survey report and it will be distributed.

RC:mm

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION BUREAU
POINT SOURCE STUDIES SECTION

Report of a
Municipal Wastewater Survey
Conducted at
PLAINWELL WASTEWATER TREATMENT PLANT
All Outfalls No. 030048
Allegan County
August 9-10, 1976

Survey Summary

Wastewater monitoring was performed during one twenty-four hour survey period starting Monday, August 9, 1976.

The results of this survey were less than the interim 7-day average limitations in the facility's National Pollutant Discharge Elimination System (NPDES) Permit, No. MI0020494 (Table 3).

The composite sample collected during the survey was split with the plant for analysis. Except for the BOD_5 results, the results reported by the plant agreed well with the Environmental Protection Bureau laboratory results. The plant reported a BOD_5 of 14 mg/l on the split sample and our laboratory results were 56 mg/l (Table 4).

The survey results agreed well with the results reported by the plant in their August Monthly Operating Report (Table 3).

Purpose of Survey

The purpose of the survey was to determine the quality and quantity of wastewater being discharged by the Plainwell Wastewater Treatment Plant, to the Kalamazoo River and to check for compliance with the NPDES Permit No. MI0020494.

This survey was in conjunction with a river study conducted by the Comprehensive Studies Section of the Environmental Protection Bureau.

Wastewater Treatment

The Plainwell Wastewater Treatment Plant (See Figure 1 for location) is a trickling filter plant with an average design flow of 0.5 MGD and a flow during the survey of 0.28 MGD. The plant does not receive any industrial waste discharges. The Plainwell sanitary sewer system has excessive inflow and infiltration problems, but there was no rainfall immediately before or during the survey.

Wastewater entering the plant passes through a comminuter, a primary settling tank, a trickling filter, a secondary settling tank and a chlorine contact tank. The effluent from the plant is discharged to the Kalamazoo River through outfall 030048 (001).

Sludge from the plant is digested in an anerobic sludge digester and dried on sludge drying beds. The dried sludge is buried on plant property.

Survey Procedure

The existing 6" Parshall flume was equipped with a water level recorder and an automatic air activated sampler. The water level recorder provided a continuous account of the liquid level or head above the crest of the Parshall flume on a head versus time graph for the duration of the survey period. The total volume of wastewater over the Parshall flume during the survey period was computed from the graph. The automatic air activated sampler obtained samples proportional to the instantaneous flow over the Parshall flume at 4-minute intervals. These individual samples were deposited in a clean container to make up a composite sample representative of the total flow over the Parshall flume during the survey period.

Several individual grab samples were collected from the Plainwell Wastewater Treatment Plant for selected physical, chemical and bacteriological analyses.

All samples collected were preserved according to Table 5.

The composite and grab samples were transported to the Environmental Protection Bureau laboratory located in Lansing for selected quantitative physical and chemical analyses. The following formula was used to compute the pounds per day of various wastewater constituents discharged:

lbs/day = flow (mgd) x conc. (mg/l) x unit weight of water (8.34 lbs/gal).

The bacteria samples were transported to the Michigan Department of Public Health, Bureau of Laboratories located in Lansing for selected quantitative bacteriological analyses.

The results of the physical, chemical and bacteriological analyses are presented in Tables 1 and 2.

Table 1 Quantitative analyses of the one 24-hour composite and two grab samples collected from the Plainwell Wastewater Treatment Plant discharge 030048 (001), to the Kalamazoo River to determine the concentration of the wastewater constituents present in the samples, plus the computed pounds per day (lbs/day) of these constituents being discharged. Also noted are the highest and lowest flow rates recorded during the survey period.

Outfall		030048 (001)			
		Composite	Grab	Grab	Influent
Survey Period	From	8-9-76 - 1430	8-9-76	8-10-76	
	To	8-10-76 - 1430	1730	0900	
Total flow monitored (gal)		285,000			
Computed flow rate (mgd) *		0.285			
Highest flow rate (mgd)		0.615			
Lowest flow rate (mgd)		0.117			
Temperature (°C)		--	21	20	--
pH (S.U.)		--	7.5	7.4	--
		mg/l	mg/l	mg/l	mg/l
D.O.		--	3.7	3.6	--
5-day BOD		56	68	38	--
20-day BOD		55	--	--	--
COD		110	130	84	--
Suspended solids		38	46	34	--
Dissolved solids		664	708	644	--
Orthophosphate-P		5.0	6.0	6.2	--
Total phosphorus-P		7.2	8.7	7.6	11
Nitrite & nitrate nitrogen-N		0.9	0.7	0.9	--
Ammonia nitrogen-N		16.0	16.0	15.0	--
Organic nitrogen-N		7.0	10.0	6.0	--
Chlorides (Cl)		160	140	140	--
Sulfates (SO_4)		61	76	56	--
Chlorine Residual		--	0.22	0.44	--
Oil & Grease		--	6	3	--

	1242 PCB ug/l	1254 PCB ug/l	1260 PCB ug/l
030048 (001)	< 0.1	< 0.1	< 0.1

* Flow rates used in the computation of lbs/day.
PCB - Polychlorinated biphenyl

Table 2 Quantitative analyses of grab samples collected from the Plainwell Wastewater Treatment Plant discharge 030048 (001), to the Kalamazoo River to determine concentrations of select bacteriological constituents present in the wastewater.

Outfall	030048 (001)					
Time	1700	2140	0930	1240	1410	Geometric Mean
Date	8-9-76	8-9-76	8-10-76	8-10-76	8-10-76	
Fecal coliform (cts/100 ml)	6,700	10	10	< 10	30	50

Table 3 Comparison of results obtained during the survey at the Plainwell Wastewater Treatment Plant with the facility's NPDES Permit, No. MI0020494, and monthly operating report for August, 1976.

Parameter (Unit)	NPDES Permit Interim Limitations		Monthly Operating Report			Survey Results (1)
	30-day Average	7-day Average	Monthly Average	Weekly Average	8-9-76	8-10-76	
030048 (001) Flow (MGD)	--	--	0.300	--	0.364	0.332	0.286
BOD_5 (mg/l)	45	60	49	54	--	46	56 (68, 38)
(lbs/day)	200	300	136	151	--	127	130
Suspended solids (mg/l)	45	60	44	50	--	53	38 (46, 34)
(lbs/day)	200	300	117	136	--	147	90
Fecal coliform (cts/100 ml)	200	400	8	11	--	--	50 (2)
pH (S.U.)	6.5 to 9.5		--	--	--	7.6	-- (7.4 - 7.5)

(1) - Survey results are for the composite sample. Grab sample results are shown in parantheses ( ).
(2) - Geometric mean of five grab samples over survey period.

Table 4 Comparison of the laboratory analytical results obtained by the Plainwell Wastewater Treatment Plant and the Environmental Protection Bureau from the split composite samples.

Outfall	030048 (001)	
	Plainwell WWTP	E.P.B.
pH (S.U.)	7.8	--
	mg/l	mg/l
5-day BOD	14	56
Suspended solids	42	38
Total phosphorus-P	7.4	7.2

Table 5 Sample Preservation

Parameter	Preservative
BOD	Cooled to 4°C.
COD	5 drops H_2SO_4/125 ml (to pH <2). Cooled to 4°C.
D.O.	Fixed on site.
General Chemistry	Cooled to 4°C.
Microbiology	2 drops 10% sodium thiosulfate/125 ml to dechlorinate sample. Cooled to 4°C.
Nutrients	5 drops $CHCl_3$/125 ml. Cooled to 4°C.
Oil & Grease	1 ml 1:1 H_2SO_4/250 ml (to pH <4). Cooled to 4°C.
PCB	Collected in glass bottle.

Survey by: Richard Christensen, Sanitary Engineer
L.J. McDonald, Water Quality Investigator
John Macon, Maintenance Mechanic

Contact with Management: Terry Town, Assistant Superintendent

Certified Operator: Joseph M. Denies

Hydrocarbon Analyses by: Tom Wilcox, Chemist

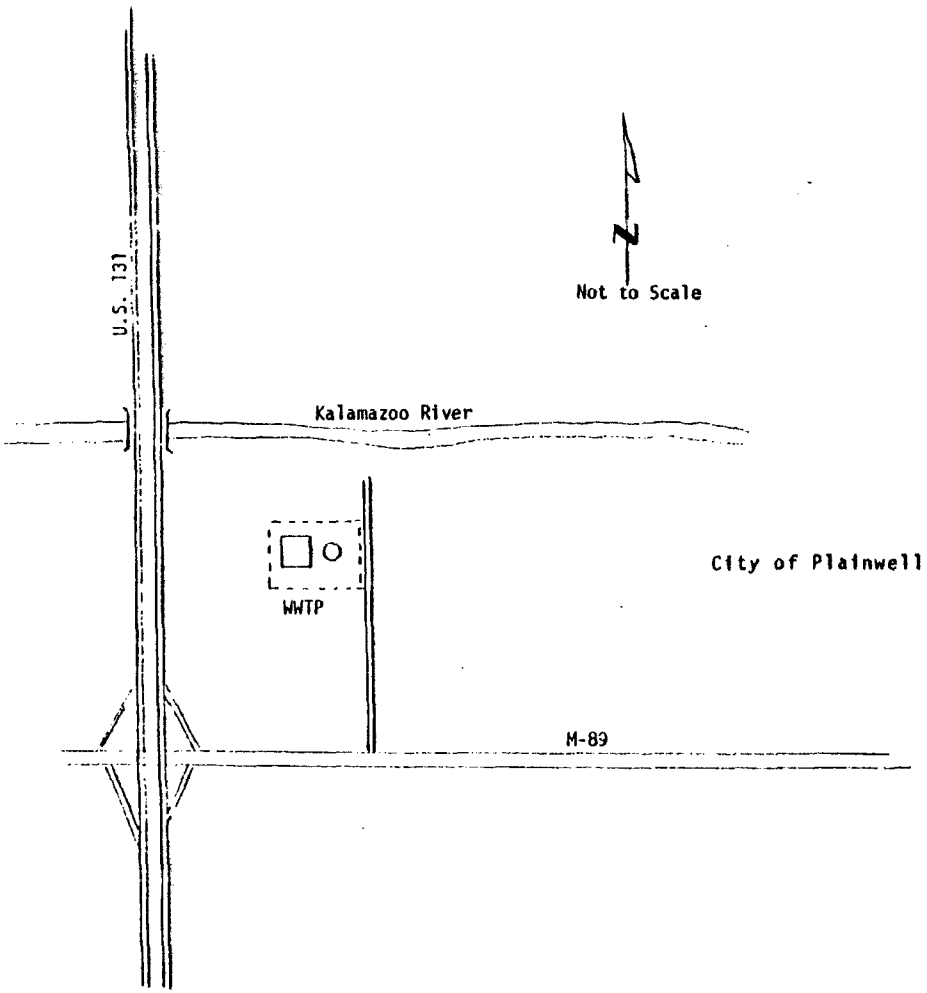
Physical & Chemical Analyses by: Ray Wimmer, Chemist

Bacteriological Analyses by: Michigan Department of Public Health
Bureau of Laboratories

Report by: Richard Christensen
L.J. McDonald
Point Source Studies Section
Environmental Services Division
Environmental Protection Bureau
Michigan Department of Natural Resources

Distribution "A"
MM

Figure 1 Plainwell Wastewater Treatment Plant



MICHIGAN DEPARTMENT OF AGRICULTURE
LABORATORY DIVISION

Seal No. _____
Inspector J. Holt

REPORT OF ANALYSIS

TO THE DIRECTOR OF AGRICULTURE:

Division: Toxic Substances & Emergency Services Lansing, Michigan, December 18 19 85

Sirs: I hereby submit report covering

Sample of Corn (Treated)

Manufacturer City of Plainwell 141 N. Main St. Plainwell, Mi. 49080

Jobber Farmed by Don Vandenberg

Dealer

Received 10/18/85 Delivered By Holt Package glass jar

% Dry Matter 76.6%

QUANTITATIVE ANALYSIS: Wet Weight Basis

Arsenic at the 0.025 ppm level	none detected
Cadmium at the 0.02 ppm level	none detected
Chromium at the 1 ppm level	none detected
Copper at the 1 ppm level	none detected
Lead	0.09 ppm
Mercury at the 0.1 ppm level	none detected
Nickel	1 ppm
Zinc	19 ppm
Molybdenum at the 1 ppm level	none detected
Selenium at the 0.05 ppm level	none detected
Benzene	none detected
Toluene	none detected
Trichloromethane	none detected
Trichloroethylene	none detected
Tetrachloromethane	none detected

Residues in Parts Per Million

	Gas Liquid Chromatography
PCNB	none detected
Chlorpyrifos	none detected
Di(n-butyl)phthalate	none detected
Polychlorinated Biphenyls (Calculated as Aroclor 1254)	none detected

State Analyst

PROCEDURE: P.A., Seizure, Prosecution.

Date

Division Chi

n 21 (Rev. 4/85)
cordance with Act 380, Public Acts 1965 as amended)

HIGAN DEPARTMENT OF AGRICULTURE
LABORATORY DIVISION

Lab. No. 50021
Seal No. D 94373
Inspector J. Holt

REPORT OF ANALYSIS

O THE DIRECTOR OF AGRICULTURE:

Division: Toxic Substances & Emergency Services Lansing, Michigan, December 18 19 85

Sirs: I hereby submit report covering

Sample of Soil (Treated)

Manufacturer City of Plainwell 141 N. Main St. Plainwell, Mi. 49080

Jobber Farmed by Dan Vandenberg

Dealer

Received 10/18/85 Delivered By Holt Package glass jar

% Moisture	7.7%
pH	5.4
% Organic Content	1.3%

QUANTITATIVE ANALYSIS: Wet Weight Basis

Arsenic	2 ppm
Cadmium at the 1 ppm level	none detected
Chromium	7 ppm
Copper	12 ppm
Lead	5 ppm
Mercury at the 0.1 ppm level	none detected
Nickel	110 ppm
Zinc	26 ppm
Molybdenum at the 1 ppm level	none detected
Selenium at the 0.1 ppm level	none detected
Benzene	none detected
Toluene	none detected
Trichloromethane	none detected
Trichloroethylene	none detected
Tetrachloromethane	none detected

Residues in Parts Per Million

	Gas Liquid Chromatography
PCNB	none detected
Chlorpyrifos	none detected
Di(n-butyl)phthalate	none detected
Polychlorinated Biphenyls (Calculated as Aroclor 1254)	none detected

State Analyst

PROCEDURE: P.A., Seizure, Prosecution.

Date

Division Chief

MICHIGAN DEPARTMENT OF AGRICULTURE
LABORATORY DIVISION

Seal No. [illegible]
Inspector J. Holt

REPORT OF ANALYSIS

TO THE DIRECTOR OF AGRICULTURE:

Division: Toxic Substances & Emergency Services Lansing, Michigan, December 18 1985

Sirs: I hereby submit report covering

Sample of Corn - Control

Manufacturer City of Plainwell WWTP 141 N. Main St. Plainwell, Mi. 49080

Jobber Farmed by Don Vandenberg

Dealer

Received 10/18/85 Delivered By Holt Package glass jar

% Dry Matter 75.4%

QUANTITATIVE ANALYSIS: Wet Weight Basis

Arsenic at the 0.025 ppm level	none detected
Cadmium at the 0.02 level	none detected
Chromium at the 1 ppm level	none detected
Copper	1 ppm
Lead at the 0.02 ppm level	none detected
Mercury at the 0.1 ppm level	none detected
Nickel at the 1 ppm level	none detected
Zinc	17 ppm
Molybdenum at the 1 ppm level	none detected
Selenium at the 0.05 ppm level	none detected
Benzene	none detected
Toluene	none detected
Trichloromethane	none detected
Trichloroethylene	none detected
Tetrachloromethane	none detected

Residues in Parts Per Million

	Gas Liquid Chromatography
PCNB	none detected
Chlorpyrifos	none detected
Di(n-butyl)phthalate	none detected
Polychlorinated Biphenyls (Calculated as Aroclor 1254)	none detected

State Analyst

PROCEDURE: P.A., Seizure, Prosecution.

Date

Division Chief

MICHIGAN DEPARTMENT OF AGRICULTURE
LABORATORY DIVISION

Seal No. [illegible]
Inspector J. Holt

REPORT OF ANALYSIS

TO THE DIRECTOR OF AGRICULTURE:
Division: Toxic Substances & Emergency Services Lansing, Michigan, December 18 19 85

Sirs: I hereby submit report covering
Sample of Soil (Control)
Manufacturer City of Plainwell 141 N. Main St. Plainwell, MI. 49080
~~XXXX~~ Farmed by Don Vandenberg
Dealer
Received 10/18/85 Delivered By Holt Package glass jar

% Moisture Content	8.5%
pH	5.5
% Organic Content	1.4%

QUANTITATIVE ANALYSIS: Wet Weight Basis

Arsenic	2 ppm
Cadmium at the 1 ppm level	none detected
Chromium	4 ppm
Copper	8 ppm
Lead	6 ppm
Mercury at the 0.1 ppm level	none detected
Nickel	7 ppm
Zinc	21 ppm
Molybdenum at the 1 ppm level	none detected
Selenium at the 0.05 ppm level	none detected
Benzene	none detected
Toluene	none detected
Trichloromethane	none detected
Trichloroethylene	none detected
Tetrachloromethane	none detected

Residues in Parts Per Million

	Gas Liquid Chromatography
PCNB	none detected
Chlorpyrifos	none detected
Di(n-butyl)phthalate	none detected
Polychlorinated Biphenyls (Calculated as Aroclor 1254)	none detected

State Analyst

PROCEDURE: P.A., Seizure, Prosecution.

Date

Division Chief

fishbeck, thompson, carr & huber
analytical services

City of Plainwell
141 N. Main Street
Plainwell, MI 49080

Date Reported: 10/22/91
Lab Number: 9109404V
Date Received: 09/26/91
Client ID: 60888

Attention: Mr. Donald Murdick
Sludge - Holding Tank, 09/25/91

Semi-Volatile Organics

Compound Name	Results
n-nitrosodimethylamine	<8.3 mg/kg
phenol	<8.3 mg/kg
analine	<17 mg/kg
bis(2-chloroethyl)ether	<8.3 mg/kg
2-chlorophenol	<8.3 mg/kg
1,3-dichlorobenzene	<8.3 mg/kg
1,4-dichlorobenzene	<8.3 mg/kg
benzyl alcohol	<17 mg/kg
1,2-dichlorobenzene	<8.3 mg/kg
2-methylphenol	<8.3 mg/kg
bis(2-chloroisopropyl)ether	<8.3 mg/kg
4-methylphenol	<8.3 mg/kg
n-nitrosodi-n-propylamine	<8.3 mg/kg
hexachloroethane	<8.3 mg/kg
nitrobenzene	<8.3 mg/kg
isophorone	<8.3 mg/kg
2-nitrophenol	<8.3 mg/kg
2,4-dimethylphenol	<8.3 mg/kg
bis(2-chloroethoxy)methane	<8.3 mg/kg
benzoic acid	<50 mg/kg
2,4-dichlorophenol	<8.3 mg/kg
1,2,4-trichlorobenzene	<8.3 mg/kg
naphthalene	<8.3 mg/kg
4-chloroanaline	<8.3 mg/kg
hexachlorobutadiene	<8.3 mg/kg
4-chloro-3-methylphenol	<17 mg/kg
2-methylnapthalene	<8.3 mg/kg
hexachlorocyclopentadiene	<8.3 mg/kg
2,4,6-trichlorophenol	<8.3 mg/kg
2,4,5-trichlorophenol	<8.3 mg/kg
2-chloronaphthalene	<8.3 mg/kg
2-nitroaniline	<50 mg/kg

fishbeck, thompson, carr & huber
analytical services

City of Plainwell
141 N. Main Street
Plainwell, MI 49080

Date Reported: 10/22/91
Lab Number: 9109404B
Date Received: 09/26/91
Client ID: 60888

Attention: Mr. Donald Murdick
Sludge - Holding Tank, 09/25/91

Method 8080

Compound Name	Results
PCB-1016	<85 mg/kg
PCB-1221	<85 mg/kg
PCB-1232	<85 mg/kg
PCB-1242	<85 mg/kg
PCB-1248	<85 mg/kg
PCB-1254	<85 mg/kg
PCB-1260	<85 mg/kg
PCB-1262	<85 mg/kg
PCB, Total	<85 mg/kg
alpha-BHC	<3.3 mg/kg
beta-BHC	<6.7 mg/kg
gamma-BHC (lindane)	<6.7 mg/kg
heptachlor	<6.7 mg/kg
delta-BHC	<330 mg/kg
aldrin	<33 mg/kg
heptachlor epoxide	<8.3 mg/kg
alpha-endosulfan	<12 mg/kg
4,4'-DDE	<17 mg/kg
dieldrin	<33 mg/kg
endrin	<10 mg/kg
4,4'-DDD	<10 mg/kg
beta-endosulfan	<10 mg/kg
4,4'-DDT	<10 mg/kg
endrin aldehyde	<10 mg/kg
endosulfan sulfate	<10 mg/kg
chlordane	<67 mg/kg
toxaphene	<330 mg/kg

Analysis subcontracted.
Results expressed in dry weight.

Semi-Volatile Organics
9108397A

Compound Name	Results
dimethyl phthalate	<10 ug/l
2,6-dinitrotoluene	<10 ug/l
acenaphthylene	<10 ug/l
3-nitroaniline	<50 ug/l
acenapthene	<10 ug/l
2,4-dinitrophenol	<50 ug/l
4-nitrophenol	<50 ug/l
dibenzofuran	<10 ug/l
2,4-dinitrotoluene	<10 ug/l
diethyl phthlate	<10 ug/l
fluorene	<10 ug/l
4-nitroaniline	<50 ug/l
2-methyl-4,6-dinitrophenol	<50 ug/l
n-nitrosodiphenylamine	<10 ug/l
azobenzene	<10 ug/l
4-bromophenyl phenyl ether	<10 ug/l
hexachlorobenzene	<10 ug/l
pentachlorophenol	<50 ug/l
phenanthrene	<10 ug/l
anthracene	<10 ug/l
di-n-butyl phthalate	<10 ug/l
fluoranthene	<10 ug/l
pyrene	<10 ug/l
butyl benzyl phthalate	<10 ug/l
benzo(a)anthracene	<10 ug/l
chrysene	<10 ug/l
bis(2-ethylhexyl)phthalate	160 ug/l
di-n-octyl phthalate	<10 ug/l
benzo(b)fluoranthene (5)	<10 ug/l
benzo(k)fluoranthene (5)	<10 ug/l
benzo(a)pyrene (5)	<10 ug/l
3,3'-dichlorobenzidine	<20 ug/l
indeno(1,2,3-cd)pyrene	<10 ug/l
dibenzo(a,h)anthracene	<10 ug/l
benzo(ghi)perylene	<10 ug/l

Analysis subcontracted.

SEP - 5 1991

fc&h

fishbeck, thompson, carr & huber
analytical services

City of Plainwell
141 North Main Street
Plainwell, MI 49080

Date Reported: 08/30/91
Lab Number: 9107310
Date Received: 07/31/91
Client ID: 60888

Attention: Mr. Don Murdick
Digestor #1, 07/29/91

Method 8010/8020

Compound Name	Results
Chloroform	<0.04 mg/l
Bromodichloromethane	<0.08 mg/l
Dibromochloromethane	<0.08 mg/l
Bromoform	<0.10 mg/l
Bromomethane	<0.08 mg/l
Dichlorodifluoromethane	<0.10 mg/l
Chloroethane	<0.05 mg/l
Methylene chloride	<0.04 mg/l
Trichlorofluoromethane	<0.08 mg/l
1,1-Dichloroethene	<0.02 mg/l
Chloromethane	<0.05 mg/l
1,1-Dichloroethane	<0.02 mg/l
Trans-1,2-Dichloroethene	<0.02 mg/l
1,2-Dichloroethane	<0.02 mg/l
1,1,1-Trichloroethane	<0.02 mg/l
Carbon tetrachloride	<0.06 mg/l
1,2-Dichloropropane	<0.02 mg/l
trans-1,3-Dichloropropene	<0.02 mg/l
Trichloroethene	<0.02 mg/l
cis-1,3-Dichloropropene	<0.02 mg/l
1,1,2-Trichloroethane	<0.02 mg/l
2-Chloroethyl vinyl ether	<0.05 mg/l
1,1,2,2-Tetrachloroethane	<0.02 mg/l
Tetrachloroethene	<0.02 mg/l
Vinyl chloride	<0.05 mg/l
Benzene	<0.02 mg/l
Toluene	<0.02 mg/l
Chlorobenzene	<0.02 mg/l
Ethyl benzene	<0.02 mg/l
1,2-Dichlorobenzene	<0.02 mg/l
1,3-Dichlorobenzene	<0.02 mg/l
1,4-Dichlorobenzene	<0.02 mg/l
Xylenes	<0.02 mg/l

Analysis subcontracted.

fishbeck, thompson, carr & huber
analytical services

City of Plainwell
141 North Main Street
Plainwell, MI 49080

Date Reported: 08/30/91
Lab Number: 9107310P
Date Received: 07/31/91
Client ID: 60888

Attention: Mr. Don Murdick
Digestor #1, 07/29/91

Method 8080

Compound Name	Results
PCB-1016	<1.0 ug/l
PCB-1221	<1.0 ug/l
PCB-1232	<1.0 ug/l
PCB-1242	<1.0 ug/l
PCB-1248	<1.0 ug/l
PCB-1254	<1.0 ug/l
PCB-1260	<1.0 ug/l
PCB-1262	<1.0 ug/l
PCBs, Total	<1.0 ug/l
alpha-BHC	<0.06 ug/l
beta-BHC	<0.08 ug/l
gamma-BHC (lindane)	<0.07 ug/l
heptachlor	<0.08 ug/l
delta-BHC	<0.40 ug/l
aldrin	<0.10 ug/l
heptachlor epoxide	<0.10 ug/l
alpha-endosulfan	<1.0 ug/l
4,4'-DDE	<0.50 ug/l
dieldrin	<0.20 ug/l
endrin	<0.20 ug/l
4,4'-DDD	<0.20 ug/l
beta-endosulfan	<0.20 ug/l
4,4'-DDT	<0.40 ug/l
endrin aldehyde	<0.40 ug/l
endosulfan sulfate	<0.40 ug/l
chlordane	<0.80 ug/l
toxaphene	<6.0 ug/l

Analysis subcontracted.

fishbeck, thompson, carr & huber
analytical services

City of Plainwell
141 N. Main Street
Plainwell, MI 49080

Date Reported: 01/22/92
Lab Number: 9109404
Date Received: 09/26/92
Client ID: 60888

Attention: Mr. Donald Murdick
Sludge - Holding Tank, 09/25/91

REVISED REPORT
8010/8020

Compound Name	Results
Chloroform	<10 ug/kg
Bromodichloromethane	<10 ug/kg
Dibromochloromethane	<10 ug/kg
Bromoform	<10 ug/kg
Bromomethane	<10 ug/kg
Dichlorodifluoromethane	<10 ug/kg
Chloroethane	<10 ug/kg
Methylene chloride	<10 ug/kg
Trichlorofluoromethane	<10 ug/kg
1,1-Dichloroethene	<10 ug/kg
Chloromethane	<10 ug/kg
1,1-Dichloroethane	<10 ug/kg
Trans-1,2-Dichloroethene	<10 ug/kg
1,2-Dichloroethane	<10 ug/kg
1,1,1-Trichloroethane	<10 ug/kg
Carbon tetrachloride	<10 ug/kg
1,2-Dichloropropane	<10 ug/kg
trans-1,3-Dichloropropene	<10 ug/kg
Trichloroethene	<10 ug/kg
cis-1,3-Dichloropropene	<10 ug/kg
1,1,2-Trichloroethane	<10 ug/kg
2-Chloroethyl vinyl ether	<10 ug/kg
1,1,2,2-Tetrachloroethane	<10 ug/kg
Tetrachloroethene	<10 ug/kg
Vinyl chloride	<10 ug/kg
Benzene	<10 ug/kg
Toluene	850 ug/kg
Chlorobenzene	<10 ug/kg
Ethyl benzene	<10 ug/kg
1,2-Dichlorobenzene	<10 ug/kg
1,3-Dichlorobenzene	<10 ug/kg
1,4-Dichlorobenzene	18 ug/kg
Xylene	<10 ug/kg

Analysis subcontracted.
Results expressed in dry weight.

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fishbeck, thompson, carr & huber
analytical services

City of Plainwell
141 N. Main Street
Plainwell, MI 49080

Date Reported: 01/22/92
Lab Number: 9109404B
Date Received: 09/26/92
Client ID: 60888

Attention: Mr. Donald Murdick
Sludge - Holding Tank, 09/25/91

REVISED REPORT
Method 8080

Compound Name	Results
PCB-1016	<5000 ug/kg
PCB-1221	<5000 ug/kg
PCB-1232	<5000 ug/kg
PCB-1242	<5000 ug/kg
PCB-1248	<5000 ug/kg
PCB-1254	<5000 ug/kg
PCB-1260	<5000 ug/kg
PCB-1262	<5000 ug/kg
PCB, Total	<5000 ug/kg
alpha-BHC	<200 ug/kg
beta-BHC	<400 ug/kg
gamma-BHC (lindane)	<400 ug/kg
heptachlor	<400 ug/kg
delta-BHC	<20000 ug/kg
aldrin	<2000 ug/kg
heptachlor epoxide	<500 ug/kg
alpha-endosulfan	<700 ug/kg
4,4'-DDE	<1000 ug/kg
dieldrin	<2000 ug/kg
endrin	<600 ug/kg
4,4'-DDD	<600 ug/kg
beta-endosulfan	<600 ug/kg
4,4'-DDT	<600 ug/kg
endrin aldehyde	<600 ug/kg
endosulfan sulfate	<600 ug/kg
chlordane	<4000 ug/kg
toxaphene	<20000 ug/kg

Analysis subcontracted.
Results expressed in dry weight.

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fishbeck, thompson, carr & huber
analytical services

City of Plainwell
141 N. Main Street
Plainwell, MI 49080

Date Reported: 12/02/91
Lab Number: 9110350B
Date Received: 10/23/91
Client ID: 60888

Attention: Mr. Donald Murdick
Sludge/Holding Tank, 10/23/91

PCBs

Compound Name	Results
PCB-1016	<10000 ug/kg
PCB-1221	<10000 ug/kg
PCB-1232	<10000 ug/kg
PCB-1242	<10000 ug/kg
PCB-1248	<10000 ug/kg
PCB-1254	<10000 ug/kg
PCB-1260	<10000 ug/kg
PCB-1262	<10000 ug/kg
PCB-Total	<10000 ug/kg

Analysis subcontracted.
Results expressed in dry weight.

Analyses were performed in accordance with procedures described in EPA Publication SW-846, "Test Methods for Evaluating Solid Wastes", Third Edition, September, 1986.

Above are the results for the analyses requested. If you have any questions regarding these results, please contact us.

Mary Susan Crosby
Mary Susan Crosby
Analytical Services Manager

6080 East Fulton • P.O. Box 211 • Ada, Michigan 49301-0211 • 616/676-1333 • FAX 616/676-8173

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Waste Profile Sheet Code: WMNA 282993

This form is to be used to comply with the requirements of a waste agreement

INSTRUCTIONS FOR COMPLETING THIS FORM ARE ATTACHED

(Shaded Areas For Contractor Use Only)

Decision Expiration Date: 12/31/94

Contractor Sales Rep#: 11

Service Agr. Renewal Date: / /

A. WASTE GENERATOR INFORMATION

1. Generator Name: City of Plainwell WWTP
2. SIC Code:
3. Facility Address (site of waste generation): 129 Fairlane
4. Generator City, State/Province: Plainwell MI
5. Zip/Postal Code: 49080
6. Generator USEPA/Federal ID #:
7. State/Province ID #:
8. Technical Contact: Donald L. Murdick
9. Phone: (616) 685-5153

B. WASTE STREAM INFORMATION (See Instructions)

1. Name of Waste: Anaerobically Digested Sludge
2. Process Generating Waste: Municipal Wastewater Treatment Plant
3. Annual Amount/Units: 500 cu. yds.
4. Type A ☑ Type B ☐
5. Special Handling Instructions/Supplemental Information: N.A.
6. Incidental Waste Types and Amounts: N.A.

C. TRANSPORTATION INFORMATION

1. Method of Shipment: ☐ Bulk Liquid ☑ Bulk Sludge ☐ Bulk Solid ☐ Drum/Box ☐ Other
2. Supplemental Shipping Information:
3. Is this a DOT hazardous material? ☑ No ☐ Yes (If yes, complete 4, 5 & 6)
4. Hazard Class/ID #:
5. Reportable Quantity/Units (lb/kg): 20 cubic yd
6. Shipping Name:

D. TECHNICAL MANAGER DECISION (Check One) ☑ APPROVED ☐ DISAPPROVED ☐ Check if additional information is attached

If Disapproved, Explain:

If Approved, Continue

1. Management Method(s)
2. Precautions, Conditions, or Limitations on Approval:
3. For Type A Wastes, Laboratory Analysis of a Representative Sample Was: ☐ Waived ☑ Attached

If waived, explain why:

4. List Non-WMI Facility that is Approved to Manage this Waste: Date:

Tech. Mgr. Signature: [signature] Name (Print): M. Andrews Date: 9/23/94

E. MANAGEMENT FACILITY INFORMATION / DECISION

1. Proposed Management Facility: Westside RDF
2. Proposed Intermediate Transfer Facility: N.A.
3. Transporter: B.F.I.
4. Management Facility Gen. Mgr. Decision (Check One) ☑ APPROVED ☐ DISAPPROVED

If Disapproved, Explain:

If Approved, List Precautions, Conditions, or Limitations on Approval:

General Mgr. Signature: [signature] Name (Print): Thomas E. Wilson Date: 9-23-94

Turn Page and Complete Side 2 (If Type B Special Waste, only complete Part J of Side 2)

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

F. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)

1. Color	2. Does the waste have a strong incidental odor?	3. Physical State @ 70°F/21°C:	4. Layers	5. Specific Gravity	6. Free Liquids:
Black	☑ No ☐ Yes; if so, describe:	☐ Solid ☑ Semi-Solid ☐ Liquid ☐ Powder ☐ Other:	☐ Multi-layered ☐ Bi-layered ☑ Single Phased	Range N.A.	☐ Yes ☑ No Volume: %

7. pH: ☐ ≤2 ☐ > 2-4 ☐ 4-7 ☐ 7 ☑ 7-10 ☐ 10- <12.5 ☐ ≥12.5 ☐ Range ☐ NA

8. Flash Point: ☑ None ☐ <140°F/60°C ☐ 140 - 199°F/60 - 93°C ☐ ≥200°F/93°C ☐ Closed Cup ☐ Open Cup

G. CHEMICAL COMPOSITION

	RANGE (MIN-MAX)
1. Have supplied copy of	- %
all analyses on this	- %
sludge earlier.	- %
	- %
	- %
	- %
	- %
	- %
	- %
Total:	%

2. Does the waste contain any of the following? (provide concentration if known):

	NO	or	LESS THAN	or	ACTUAL
PCBs	☐		☐ < 50 ppm		ppm
Cyanides	☐		☐ < 30 ppm		ppm
Sulfides	☐		☐ < 500 ppm		ppm

Please note: Unless analytical results are attached, the chemical composition identification should include, at a minimum, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Pesticides, Herbicides, and any other TCLP constituents that may be present in the waste. The total composition must be greater than or equal to 100%. (.0001% = 1 ppm or 1 mg/l)

3. Indicate method used to determine composition (if provided): ☐ TCLP ☑ Total ☐ Other:

H. SAMPLING SOURCE (e.g., Drum, Lagoon, Pit, Pond, Tank, Vat) Representative from Tank

I. REPRESENTATIVE SAMPLE CERTIFICATION

1. Print Sampler's Name: Donald Murdick 2. Sample Date: See Printout
3. Sampler's Title: Supt WWTP
4. Sampler's Employer (if other than Generator):

The sampler's signature certifies that any sample submitted is representative of the waste described above pursuant to 40 CFR 261.20(c) or equivalent rules.

5. Sampler's Signature Donald L Murdick Jr

J. GENERATOR CERTIFICATION

By signing this profile sheet, the Generator certifies:

1. This waste is not a "Hazardous Waste" as defined by USEPA or Canadian Federal regulation and/or the state/province.
2. This waste does not contain regulated radioactive materials or regulated concentrations of PCB's (Polychlorinated Biphenyls).
3. The unshaded portions of this sheet and the attachments contain true and accurate descriptions of the waste material. All relevant information regarding known or suspected hazards in the possession of the Generator has been disclosed.
4. The Generator has read and understands the Contractor's Definition of Special Waste included in Part B.5. of the attached instructions form. All types and amounts of special wastes provided in incidental amounts have been identified in section B.6. of this form.
5. The analytical data presented herein or attached hereto were derived from testing a representative sample taken in accordance with 40 CFR 261.20(c) or equivalent rules.
6. If any changes occur in the character of the waste, the Generator shall notify the Contractor prior to providing the waste to the Contractor.
7. Signature Richard J. Kunnels 8. Title CITY ADMINISTRATOR
9. Name (Type or Print) RICHARD J. KUNNELS 10. Date AUG. 23 1994

APPROVED BY COUNCIL 8/22/94

KAR Laboratories, Inc.

ANALYTICAL RESULTS

To: Plainwell, City of WWTP

Project No: 942831
Report Date: 9/20/94

Project Desc.: Analysis of one sludge sample.

Sample No.:942831-01 Type:solid Rec'd: 9/20/94
Sampled: 9/20/94 By:Client
ID: "Sludge Off Belt Press"

Paint filter test *Passed*

Unless otherwise noted, test results represent the sample(s) as they were received.

Post-It™ brand fax transmittal memo 7671	# of pages ▸ 1
To Joe Riddy - WMI	From Jamie Crak - BFI
Co.	Co.
Dept.	Phone # 381-2226
Fax # 273-1662	Fax # 381-9559

U.S. ENVIRONMENTAL
PROTECTION AGENCY

JUL 21 2003

OFFICE OF REGIONAL
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