US EPA RECORDS CENTER REGION 5
494214

Supplemental Data

Site Investigation
Former Coal Gas Manufacturing Plant
Station "B"
Detroit, Michigan

prepared for

michcon

Michigan Consolidated Gas Company

April, 1985

20356

EDI ENGINEERING & SCIENCE
ENGINEERS / GEOLOGISTS / BIOLOGISTS / CHEMISTS
611 CASCADE W. PKWY, S.E.; GRAND RAPIDS, MI 49506; (616) 942-0970

SUPPLEMENTAL DATA
TABLE OF CONTENTS

SOIL BORINGS
S Series

WELL RECORDS
W Series

FLUOROMETRIC SCREENING READINGS
Soil Samples

BACKGROUND AMBIENT AIR SAMPLES
FROM STATION A INVESTIGATION

BACKGROUND SURFACE SOIL SAMPLES
FROM STATION A INVESTIGATION

ANALYTICAL RESULTS
Air Samples
AS Series
Benzene, Toluene, Xylene

ANALYTICAL RESULTS
Surface Samples
SS Series
Heavy Metals, Cyanide, Total Phenols, Xylene
Priority Pollutants - Base Neutrals
and Volatile Organic Fraction

ANALYTICAL RESULTS
Soils
S Series
Heavy Metals, Cyanide, Total Phenols

ANALYTICAL RESULTS
Soils
S Series
Priority Pollutants - Volatile Fraction
and Base Neutral Fraction

ANALYTICAL RESULTS
Water Samples
W Series
Heavy Metals, Cyanide, Total Phenols, Xylene
Priority Pollutants - Base Neutrals
and Volatile Organic Fraction

AREA WELL LOGS
T2S R12E
T2S R11E
T2S R10E
T2S R11E
T1S R12E

SOIL BORINGS
S Series

STATION B

LOG OF SOIL BORINGS

BORING NUMBER	SURFACE ELEVATION (FEET)	DEPTH INTERVAL (FEET)	SOIL DESCRIPTION
S-1	120.3	0.0- 0.4	Blacktop
		0.4- 1.5	Gravel
		1.5- 2.5	Clay - brown, sandy
		2.5- 11.0	Sand - fine to medium, oily black fill Some Topsoil & Muck
		11.0-16.5	Clay - brown to gray, sandy
S-2	118.4	0.0- 0.4	Blacktop
		0.4- 1.0	Gravel
		1.0- 1.7	Concrete
		1.7- 5.0	Clay - gray to green
		5.0- 5.8	Concrete
		5.8-16.0	Clay - brown to gray, very firm, sandy
		16.0-20.0	Clay - gray, sandy, firm
		20.0-31.5	Clay - gray, sandy, firm, moist
S-3	116.1	0.0- 0.3	Blacktop
		0.3- 1.5	Sand & Gravel
		1.5- 2.5	Concrete
		2.5- 5.0	Clay - brown to black, lenses of cinders
		5.0- 6.0	Muck - dry
		6.0-12.0	Clay - brown to gray, sandy
		12.0-20.0	Clay - brown to gray, sandy, hard
		20.0-31.5	Clay - gray, sandy, occassional fine stone
S-4	115.0	0.0- 0.3	Blacktop
		0.3- 0.6	Sand - fine to medium, oily
		0.6- 1.2	Concrete
		1.2- 2.0	Gravel
		2.0- 10.0	Clay - brown to gray, sandy Dark Lenses @ 7.7' 2" thick; odor
		10.0-13.5	Clay - brown, sandy, very firm
S-5	114.1	0.0- 0.3	Blacktop
		0.3- 1.0	Sand - fine to medium, dark brown
		1.0- 2.5	Sand - fine to medium, few stones
		2.5- 6.0	Sand - fine to medium, dark brown, odor
		6.0-18.0	Sand - oil saturated, pieces of wood
		18.0-22.5	Clay - gray, sandy, firm (no seams) (could not get good sample of clay due to oil running on top of it)

BORING NUMBER	SURFACE ELEVATION (FEET)	DEPTH INTERVAL (FEET)	SOIL DESCRIPTION
S-6	107.0	0.0- 0.4	Blacktop
		0.4- 0.8	Sand - fine to medium, dark brown
		0.8- 1.5	Brick
		1.5- 4.5	Sand & Cinders
		4.5- 7.3	Concrete
		7.3- 8.5	Clay - brown to dark brown, sandy, firm
		8.5-11.0	Clay - gray to brown, sandy, firm
		11.0-14.0	Clay - gray, sandy, firm
S-7	105.9	0.0- 0.7	Blacktop
		0.7- 1.5	Sand - fine to medium, dark brown
		1.5- 2.3	Gravel
		2.3- 7.5	Concrete
		7.5-12.0	Clay - gray to brown, sandy, very firm
		12.0-18.0	Clay - brown, sandy
		18.0-25.0	Clay - gray, sandy, firm
S-8	104.8	0.0- 0.5	Blacktop
		0.5- 1.6	Gravel & Sand - dark brown, medium to fine
		1.6- 4.5	Concrete
		4.5-	Refusal
S-9	108.7	0.0- 0.7	Blacktop
		0.7- 1.2	Sand - fine to medium, black
		1.2- 1.7	Brick
		1.7- 2.4	Concrete
		2.4- 3.5	Brick
		3.5- 6.0	Sand - fine to medium, black, oily
		6.0- 7.0	Brick
		7.0- 7.7	Concrete
		7.7- 9.0	Sand & Cinders
		9.0-11.5	Clay - brown to gray, sandy
S-10	102.5	0.0- 0.5	Blacktop
		0.5- 2.0	Sand & Gravel - dark brown
		2.0- 3.0	Sand - fine to medium, black, cinders
		3.0- 3.5	Clay - brown to gray, sandy
		3.5- 7.0	Cinders & Sand - black
		7.0- 7.5	Clay - gray
		7.5-11.5	Sand - fine to medium, black, many pieces of crushed rock

BORING NUMBER	SURFACE ELEVATION (FEET)	DEPTH INTERVAL (FEET)	SOIL DESCRIPTION
S-11	101.9	0.0- 0.5	Blacktop
		0.5- 2.0	Sand - fine to medium, dark brown, oily
		2.0- 3.0	Clay - brown, sandy
		3.0- 7.0	Sand - fine to medium; cinders, black
		7.0- 9.0	Clay - gray, sandy, few fine stones
S-12	104.5	0.0- 0.6	Blacktop
		0.6- 1.5	Sand - fine to medium; cinders, black
		1.5- 2.4	Concrete
		2.4- 3.5	Sand - fine to medium, black, some stones
		3.5- 4.5	Clay - gray to green, sandy
		4.5- 8.0	Sand - fine to medium, pieces of glass, trace of oil
		8.0-11.5	Muck & Sand - oily, odor
S-13	106.0	0.0- 0.6	Blacktop
		0.6- 1.5	Sand - fine to medium, brown, some stones
		1.5- 3.5	Concrete
		3.5- 9.5	Rotted Wood & Sand - black
		9.5-11.5	Clay - brown to gray, sandy
S-14	109.8	0.0- 0.6	Blacktop
		0.6- 2.0	Brick
		2.0- 5.5	Sand - fine to medium; wood, oil saturated, odor
		5.5- 9.0	Clay - brown to gray, sandy
S-15	102.2	0.0- 0.2	Blacktop
		0.2- 1.5	Sand & Gravel
		1.5- 2.0	Brick
		2.0- 8.0	Sand - medium, black, oily, odor, moist
		8.0-13.0	White Lime-Like Material
		13.0-17.0	Clay - greenish gray, moist, soft
		17.0-23.0	Clay - mottled brown to gray, soft
		23.0-30.0	Clay - gray, sandy, soft
S-16	104.2	0.0- 0.2	Blacktop
		0.2- 1.5	Sand & Gravel
		1.5- 3.0	Brick
		3.0- 5.0	Rubble - brick, black sand, odor
		5.0- 8.0	Sand - medium, clayey, black, wet, odor
		8.0-12.0	Sand - fine, black, oily, odor, wet
		12.0-23.0	Clay - mottled brown, firm
		23.0-24.0	Clay - gray, very sandy, soft
		24.0-25.0	Clay - red, soft
		25.0-30.0	Clay - gray, sandy, soft (streaks of red clay)

BORING NUMBER	SURFACE ELEVATION (FEET)	DEPTH INTERVAL (FEET)	SOIL DESCRIPTION
S-17	115.2	0.0- 0.2	Blacktop
		0.2- 2.5	Sand - medium, clayey, black, odor
		2.5- 5.5	Clay - mottled brown, lenses of black clay
		5.5- 9.0	Clay - black, sandy; rubble, root structures
		9.0-18.0	Clay - mottled brown, soft
		18.0-30.0	Clay - gray, sandy, soft
S-18	120.5	0.0- 0.2	Blacktop
		0.2- 1.8	Sand & Gravel
		1.8- 3.5	Sand - black, moist odor
		3.5-19.0	Clay - mottled, brown, firm
		19.0-30.0	Clay - gray, sandy, soft

WELL RECORDS

W Series

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Page: 1 of 5
Well/Boring No.: W-2
Client: MichCon Gas Co.
Project No.: 20288
Permit No.:
Date Started 7/24 Finished 7/24

Well / Boring Log Sheet

County	Township	Fraction	Section	T	R
Wayne		1/4 1/4 1/4	10	2S	12E

Contractor: Stearns
Address:
Equipment: CME-45
Supervisor: G. Scholten

Drilling Method(s) Hollow Stem Auger **Depth** 14'

Grouting/Seal

Depth	To	Material

Development:

Water Level: 6.44 Ft. Below: TOC
Measured On: 9/24/84

Screen:
Type: Wire Wound
Model:
Slot/Gauze: 10 Slot Dia.: 2"
Length: 60" open
Depth Set: 8.3 To: 13.3

Casing

Dia.	Type	Depth Set
2"	Galv.	0 To 8.3
		To

Elevation
Casing: 107.57
Ground: 104.4
Ref. Pt.: Light Pole Nail 117.04

Location Sketch

Remarks (include here, other data available)

Thick-ness	Depth To Base	Description	Remarks
0.5	0.5	Blacktop	
1.5	2.0	Sand - fine to medium, dark brown	
2.0	4.0	Sand - fine to medium, brown	
2.0	6.0	Clay - gray to brown, sandy	
4.0	10.0	Clay - dark gray, sandy	
1.0	11.0	Clay and Coal Tar	
3.0	14.0	Clay - brown, sandy	

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Page: 2 of 5
Well/Boring No.: W-3
Client: MichCon Gas Co.
Project No.: 20288
Permit No.:
Date Started 7/23 Finished 7/23/84

Well / Boring Log Sheet

County	Township	Fraction	Section	T	R
Wayne		1/4 1/4 1/4	10	2S	12E

Contractor: Stearns
Address:
Equipment: CME-45
Supervisor: G. Scholten

Drilling Method(s) **Depth**
Hollow Stem Auger 5.3'

Grouting/Seal

Depth	To	Material

Development:

Water Level: 7.39 Ft. Below: TOC
Measured On: 9/24/84

Screen:
Type: Wire Wound
Model:
Slot/Gauze: 7 Slot Dia.: 2"
Length: 48" open
Depth Set: 3.6 To: 7.6

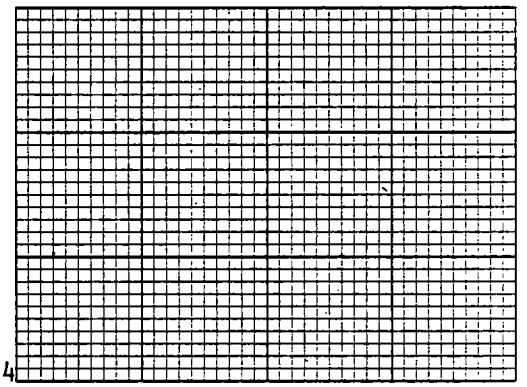
Casing

Dia.	Type	Depth Set	
2"	Galv.	0	To 3.6
			To

Elevation
Casing: 103.33
Ground: 101.6
Ref. Pt.: Light Pole Nail 117.04

Remarks (include here, other data available)

Location Sketch



Thickness	Depth To Base	Description	Remarks
0.4	0.4	Blacktop	
0.6	1.0	Sand - fine to medium, black	
2.5	3.5	Sand - fine to medium, gravel, black	
2.5	6.0	Clay - gray, sandy, soft	
4.0	10.0	Sand - fine to medium, black, odor	

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Page: 3 of 5
Well/Boring No.: W-4
Client: MichCon Gas Co.
Project No.: 20356
Permit No.:
Date Started 12/3 Finished 12/3/84

Well / Boring Log Sheet

County	Township	Fraction	Section	T	R
Wayne		1/4 1/4 1/4	10	2S	12E

Contractor: Stearns Drilling
Address: Dutton, MI

Equipment: Acker II

Supervisor: D. M. Tuck

Drilling Method(s) **Depth**
Hollow Stem Auger 14.0'

Grouting/Seal

Depth	To	Material

Development:

Water Level: 7.43 Ft. Below: TOC
Measured On: 12/3/84

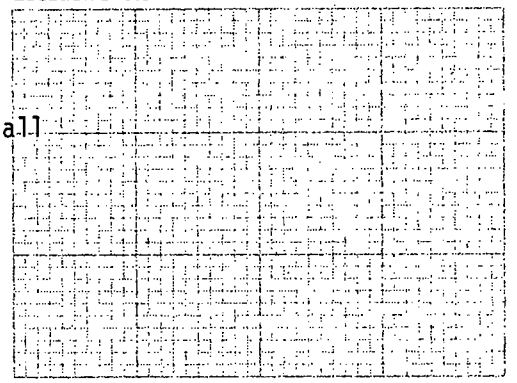
Screen:
Manufacturer: Johnson
Material: Wire Wound
Model:
Slot/Gauze: 7 slot Dia.: 2"
Length: 36" open 40" overall
Depth Set: 11.0' To: 14.0'

Casing

Dia.	Type	Depth Set
2"	Galv.	0 To 11'
		To

Elevation
Casing: 107.08
Ground: 103.92
Ref. Pt.: TOC W-2

Location Sketch



Remarks (include here, other data available)

Well screen was gravel packed.
Annular space was backfilled with native soils and sealed with concrete.

Thick-ness	Depth To Base	Description	Remarks
0.5	0.5	ASPHALT	
1.0	1.5	GRAVEL	
1.5	3.0	CINDERS & COAL TAR	
8.0	11.0	CLAY - brown, silty	
3.0	14.0	CLAY - gray	

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Page: 4 of 5
Well/Boring No.: W-5
Client: MichCon Gas Co.
Project No.: 20356
Permit No.:
Date Started 12/3 Finished 12/3/84

Well / Boring Log Sheet

County	Township	Fraction	Section	T	R
Wayne		1/4 1/4 1/4	10	2S	12E

Contractor: Stearns Drilling
Address: Dutton, MI
Equipment: Acker II
Supervisor: D. M. Tuck

Drilling Method(s) **Depth**
Hollow Stem Auger 14.0'

Grouting/Seal

Depth	To	Material

Development:

Water Level: 9.22 Ft. Below: TOC
Measured On: 12/3/84

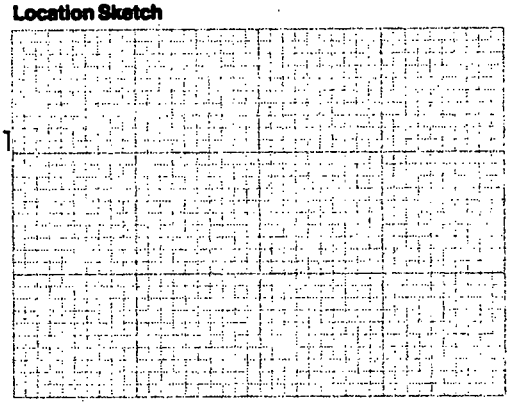
Screen:
Manufacturer: Johnson
Material: Wire Wound
Model:
Slot/Gauze: 7 slot Dia.: 2"
Length: 36" open 40" overall
Depth Set: 11.0' To: 14.0'

Casing

Dia.	Type	Depth Set
2"	Galv.	0 To 11'
		To

Elevation
Casing: 104.15
Ground: 101.20
Ref. Pt.: TOC W-2

Location Sketch



Remarks (include here, other data available)

Well screen was gravel packed.
Annular space backfilled with native soils and sealed with concrete.

Thick-ness	Depth To Base	Description	Remarks
2.0	2.0	SAND - fine to medium, dark brown, gravel, bricks	
6.0	8.0	SAND - fine, brown	
6.0	14.0	SAND - medium to coarse, light brown	

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Page: 5 of 5
Well/Boring No.: W-6
Client: MichCon Gas Co.
Project No.: 20356
Permit No.:
Date Started 12/3 Finished 12/3/84

Well / Boring Log Sheet

County	Township	Fraction	Section	T	R
Wayne		1/4 1/4 1/4	10	2S	12E

Contractor: Stearns Drilling
Address: Dutton, MI

Equipment: Acker II

Supervisor: D. M. Tuck

Drilling Method(s) **Depth**
~~Hollow Stem Auger 13.5'~~

Grouting/Seal

Depth	To	Material

Development:

Water Level: 7.46 Ft. Below: TOC
Measured On: 12/3/84

Screen:
Manufacturer: Johnson
Material: Wire Wound
Model:
Slot/Gauze: 7 slot Dia.: 2"
Length: 36" Open 40" Overall
Depth Set: 10.5 To: 13.5'

Casing

Dia.	Type	Depth Set
2"	Galv.	To
		To

Elevation
Casing: 102.58
Ground: 100.28
Ref. Pt.: TOC W-2

Location Sketch

Remarks (include here, other data available)

Well screen was gravel packed.
Annular space was backfilled with native soil and sealed with concrete.

Thickness	Depth To Base	Description	Remarks
13.5	13.5	SAND - fine, black, oily	

FLUOROMETRIC SCREENING READINGS

Soil Samples

FLUOROMETER SCREENING RESULTS - STATION B

SOIL BORING	DEPTH (FEET)	READING
S-1	2.5	100+
	5.0	100+
	7.5	*
	10.0	100+
	12.5	30
	15.0	22
S-2	2.5	100+
	5.0	*
	6.0	*
	7.5	12
	10.0	10
	12.5	10
	15.0	*
	20.0	32
	25.0	55
	30.0	6
S-3	2.5	100+
	5.0	35
	7.5	7
	10.0	6
	12.5	8
	15.0	0
	20.0	22
	25.0	30
	30.0	30
S-4	2.5	10
	5.0	45
	7.5	100+
	10.0	20
	12.5	12
S-5	2.5	100+
	5.0	100+
	7.5	100+
	10.0	100+
	12.5	*
S-6	2.5	*
	7.5	35
	10.0	35
	12.5	22
S-7	7.5	34
	10.0	*
S-8	NO SAMPLES TAKEN	
S- 9	5.0	100+
	7.5	100+
	10.0	4
S-10	2.5	100+
	5.0	100+
	7.5	100+
	10.0	100+
S-11	2.5	100+
	5.0	100+
	7.5	100+
S-12	2.5	100+
	5.0	100+
	7.5	100+
	10.0	100+
S-13	5.0	100+
	7.5	100+
	10.0	10
S-14	2.5	100+
	7.5	10
S-15	SAMPLES NOT TESTED: Deep Boring	
S-16	SAMPLES NOT TESTED: Deep Boring	
S-17	SAMPLES NOT TESTED: Deep Boring	
S-18	SAMPLES NOT TESTED: Deep Boring	

*Reading Not Taken

BACKGROUND AMBIENT AIR SAMPLES
FROM STATION A INVESTIGATION

SAMPLE #	LOCATION
7	Jefferson Avenue 350' east of 23rd Street at the fence line
10	Corner of 3rd and Congress Street in Downtown Detroit

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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: RIVERSIDE PARK, DETROIT-20286
SAMPLED BY: S.K. BYRD
DESCRIPTION: AMBIENT AIR SAMPLING

DATE SAMPLED: 09/12/84 TIME:
DATE RECEIVED: 09/14/84 TIME: 2:00 PM
DATE COMPLETED: 10/04/84
SCHEDULED COMPLETION: 10/04/84
ANALYST: ERG
QUALITY CONTROL REVIEW BY: DEK
WORKSHEET NO: 75

	#7	BLANK 09/12/84	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00045137	00045138		
BENZENE	<250	<250	250	ug/m3
TOLUENE	<23	<23	23	ug/m3
XYLENE	<70	<70	70	ug/m3

(20286)

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ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 254901
LOCATION: RIVERSIDE PARK, DETROIT-20286
SAMPLED BY: S.K. BYRD
DESCRIPTION: AMBIENT AIR SAMPLING

DATE SAMPLED: 09/24/84 TIME:
DATE RECEIVED: 09/24/84 TIME: 8:00 AM
DATE COMPLETED: 10/04/84
SCHEDULED COMPLETION: 10/04/84
ANALYST: ERG
QUALITY CONTROL REVIEW BY: DEK
WORKSHEET NO: 5

	#10	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00045449		
BENZENE	<250	250	ug/m3
TOLUENE	<23	23	ug/m3
XYLENE	<70	70	ug/m3

(20286)

BACKGROUND SURFACE SOIL SAMPLES
FROM STATION A INVESTIGATION

SAMPLE #	LOCATION
SS-6	31' N and 17' E from gas main at intersection of Jefferson and 21st Street.
SS-7	Riverside Park 125' west and 25' south of north entrance to fenced area of Riverside Park (Boat launch area)
SS-8	Shoulder of the road at intersection of I696 and I96.

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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: STATION "A" (20286)
SAMPLED BY: DJJ & GS
DESCRIPTION: SURFACE SAMPLE ANALYSIS

DATE SAMPLED: 09/06/84 TIME:
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/03/84
SCHEDULED COMPLETION: 10/03/84
ANALYST: DJO,MKH
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 80

	SURFACE SAMPLE 6	SURFACE SAMPLE 7	SURFACE SAMPLE 8	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00045414	00045415	00045416		
ANTIMONY,TOTAL	<0.40	<0.40	<0.40	0.40	MG/KG
ARSENIC,TOTAL	8.0	3.8	2.7	0.40	MG/KG
BERYLLIUM,TOTAL	5.6	<0.8	<0.8	0.8	MG/KG
CADMIUM,TOTAL	3.0	1.0	2.4	0.5	MG/KG
CHROMIUM,TOTAL	40	22	19	2.0	MG/KG
COPPER,TOTAL	97	34	78	2.0	MG/KG
LEAD,TOTAL	800	88	660	3.4	MG/KG
MERCURY,TOTAL	90	150	40	20	UG/KG
NICKEL,TOTAL	28	14	26	2.1	MG/KG
SELENIUM,TOTAL	1.8	0.76	<0.40	0.40	MG/KG
SILVER,TOTAL	<1.0	<1.0	<1.0	1.0	MG/KG
THALLIUM,TOTAL	<8.0	<8.0	<8.0	8.0	MG/KG
ZINC,TOTAL	1300	120	320	0.40	MG/KG

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: STATION "A" (20286)
SAMPLED BY: DJJ & GS
DESCRIPTION: SURFACE SAMPLE ANALYSIS

DATE SAMPLED: 09/06/84 TIME:
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/03/84
SCHEDULED COMPLETION: 10/03/84
ANALYST: MBS,MB,MK
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 81

	SURFACE SAMPLE 6	SURFACE SAMPLE 7	SURFACE SAMPLE 8	DETECTION LIMIT	UNITS	
EDI SAMPLE NO:	00045414	00045415	00045416			
CYANIDE, TOTAL	0.86	<0.20	0.31	0.20	MG/KG	WET
PHENOL, TOTAL	31	0.61	<0.50	0.50	MG/KG	WET
XYLENE	<0.1	<0.1	<0.1	0.1	MG/KG	WET

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #6 (20286)

DATE SAMPLED: 09/06/84 TIME: 10:40 AM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45414

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #6 (20286)

DATE SAMPLED: 09/06/84 TIME: 10:40 AM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45414

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	2.7	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	2.8	1.0
NAPHTHALENE	*	1.0	CHRYSENE	1.2	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	1.6	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	9.3	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	6.2	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	2.1	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	3.5	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #7 (20286)

DATE SAMPLED: 09/06/84 TIME: 10:30 AM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45415

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #7 (20286)

DATE SAMPLED: 09/06/84 TIME: 10:30 AM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45415

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	*	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	*	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	*	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #8 (20286)

DATE SAMPLED: 09/06/84 TIME: 3:30 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45416

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #8 (20286)

DATE SAMPLED: 09/06/84 TIME: 3:30 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45416

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	2.2	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	2.8	1.0
NAPHTHALENE	*	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	2.9	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	1.4	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	1.2	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	3.8	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

AMBIENT AIR SAMPLES

AS SERIES

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
LOCATION: E. JEFFERSON DETROIT. MICH.
SAMPLED BY: SCOTT CARGILL
DESCRIPTION: AMBIENT AIR SAMPLES

DATE SAMPLED: 01/04/84 TIME:
DATE RECEIVED: 01/05/84 TIME: 8:15 AM
DATE COMPLETED: 10/16/84
SCHEDULED COMPLETION: 10/16/84
ANALYST: SJL
QUALITY CONTROL REVIEW BY: SJL
WORKSHEET NO: 1

	SAMPLE #1	SAMPLE #2	SAMPLE #3	SAMPLE #4	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00045809	00045810	00045811	00045812		
BENZENE	450	<80	<80	<80	80	ug/m3
TOLUENE	320	<100	<100	<100	100	ug/m3
XYLENE	770	<80	<80	<80	80	ug/m3

ANALYSIS BY "ORGANIC SOLVENTS IN AIR", NIOSH MANUAL OF ANALYTICAL METHODS, SECOND EDITION; APRIL, 1977.

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
LOCATION: E. JEFFERSON DETROIT. MICH.
SAMPLED BY: SCOTT CARGILL
DESCRIPTION: AMBIENT AIR SAMPLES

DATE SAMPLED: 01/04/84 TIME:
DATE RECEIVED: 01/05/84 TIME: 8:15 AM
DATE COMPLETED: 10/16/84
SCHEDULED COMPLETION: 10/16/84
ANALYST: SJL
QUALITY CONTROL REVIEW BY: SJL
WORKSHEET NO: 2

	SAMPLE #5	SAMPLE #6	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00045813	00045814		
BENZENE	<80	<80	80	ug/m3
TOLUENE	<100	<100	100	ug/m3
XYLENE	<80	<80	80	ug/m3

ANALYSIS BY "ORGANIC SOLVENTS IN AIR", NIOSH MANUAL OF ANALYTICAL METHODS, SECOND EDITION; APRIL, 1977.

ANALYTICAL RESULTS

Soils

S Series

Heavy Metals, Cyanide, Total Phenols

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: DJJ,GS,MEB
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME:
DATE COMPLETED: 08/31/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: DJO,MKH,MBS
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 18

	BORING 2	BORING 3	BORING 4	BORING 4	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	2.5' 00044236	5.0' 00044237	7.5' 00044238	10.0' 00044239		
ARSENIC,TOTAL	2.2	1.2	3.2	2.2	0.4	MG/KG
ANTIMONY,TOTAL	<0.4	<0.4	<0.4	<0.4	0.4	MG/KG
BERYLLIUM,TOTAL	0.6	<0.6	<0.6	<0.6	0.6	MG/KG
CADMIUM,TOTAL	<0.6	<0.6	<0.6	<0.6	0.6	MG/KG
CHROMIUM,TOTAL	9.2	10	9.0	8.6	2.0	MG/KG
COPPER,TOTAL	24	17	15	17	1.4	MG/KG
LEAD,TOTAL	25	34	19	7.6	4.0	MG/KG
MERCURY,TOTAL	<0.2	<0.2	<0.2	<0.2	0.2	MG/KG
NICKEL,TOTAL	20	15	24	28	2.6	MG/KG
SELENIUM,TOTAL	<0.4	<0.4	<0.4	<0.4	0.4	MG/KG
SILVER,TOTAL	<1.0	<1.0	<1.0	<1.0	1.0	MG/KG
THALLIUM,TOTAL	<6.0	<6.0	<6.0	<6.0	6.0	MG/KG
ZINC,TOTAL	80	68	50	54	0.4	MG/KG

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR MEHTODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
METAL RESULTS ARE CALCULATED ON A DRY WEIGHT BASIS

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: DJJ,GS,MEB
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4 PM
DATE COMPLETED: 08/30/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: MBS,MB,GEV,NJB
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 19

	BORING 2	BORING 3	BORING 4	BORING 4	DETECTION LIMIT	UNITS
	2.5'	5.0'	7.5'	10.0'		
EDI SAMPLE NO:	00044236	00044237	00044238	00044239		
CYANIDE, TOTAL	<0.20	<0.20	<0.20	<0.20	0.20	MG/KG WET
PHENOL, TOTAL	<0.20	<0.20	<0.20	<0.20	0.20	MG/KG WET
XYLENE	<0.050	<0.050	4.6	<0.050	0.050	MG/KG

ANALYSIS BY STANDARD MEHTODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
RESULTS ARE CALCULATED ON AN AS RECEIVED WEIGHT BASIS

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: DJJ,GS,MEB
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME:
DATE COMPLETED: 08/30/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: DJO,MKH
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 20

	BORING 5	BORING 5	BORING 6	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	5.0' 00044240	7.5' 00044241	7.5' 00044242		
ARSENIC,TOTAL	2.1	1.3	2.4	0.4	MG/KG
ANTIMONY,TOTAL	<0.4	<0.4	<0.4	0.4	MG/KG
BERYLLIUM,TOTAL	<0.6	0.6	<0.6	0.6	MG/KG
CADMIUM,TOTAL	<0.6	<0.6	<0.6	0.6	MG/KG
CHROMIUM,TOTAL	<2.0	<2.0	<2.0	2.0	MG/KG
COPPER,TOTAL	9.4	11	8.0	1.4	MG/KG
LEAD,TOTAL	26	23	7.4	4.0	MG/KG
MERCURY,TOTAL	<0.2	<0.2	0.4	0.2	MG/KG
NICKEL,TOTAL	8.2	<2.6	28	2.6	MG/KG
SELENIUM,TOTAL	<0.4	<0.4	<0.4	0.4	MG/KG
SILVER,TOTAL	<1.0	<1.0	<1.0	1.0	MG/KG
THALLIUM,TOTAL	<6.0	<6.0	<6.0	6.0	MG/KG
ZINC,TOTAL	38	72	50	0.4	MG/KG

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
METAL RESULTS ARE CALCULATED ON A DRY WEIGHT BASIS

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: DJJ,GS,MEB
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 08/20/84 TIME: 4 PM
DATE COMPLETED: 08/30/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: MBS,MB,GV,NJB
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 21

	BORING 5	BORING 5	BORING 6	DETECTION LIMIT	UNITS	
	5.0'	7.5'	7.5'			
EDI SAMPLE NO:	00044240	00044241	00044242			
CYANIDE, TOTAL	0.44	25	<0.20	0.20	MG/KG	WET
PHENOL, TOTAL	0.32	3.3	<0.20	0.20	MG/KG	WET
XYLENE	1.0	720	<0.050	0.050	MG/KG	

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
RESULTS ARE CALCULATED ON AN AS RECEIVED WEIGHT BASIS

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: MEB,DJJ,GS
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4 PM
DATE COMPLETED: 08/30/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: DJO,MKH
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 34

	S1	S9	S10	S11	DETECTION LIMIT	UNITS
	5'	5'	5'	5'		
EDI SAMPLE NO:	00044308	00044309	00044310	00044311		
ARSENIC,TOTAL	0.7	2.4	<0.4	1.3	0.4	MG/KG
ANTIMONY,TOTAL	<0.4	<0.4	<0.4	<0.4	0.4	MG/KG
BERYLLIUM,TOTAL	<0.6	<0.6	<0.6	<0.6	0.6	MG/KG
CADMIUM,TOTAL	<0.6	<0.6	<0.6	<0.6	0.6	MG/KG
CHROMIUM,TOTAL	7.0	3.6	3.0	3.4	2.0	MG/KG
COPPER,TOTAL	8.0	5.6	9.0	15	1.4	MG/KG
LEAD,TOTAL	14	500	180	37	4.0	MG/KG
MERCURY,TOTAL	0.4	0.5	<0.2	<0.2	0.2	MG/KG
NICKEL,TOTAL	10	6.4	<2.6	12	2.6	MG/KG
SELENIUM,TOTAL	<0.4	<0.4	<0.4	<0.4	0.4	MG/KG
SILVER,TOTAL	<1.0	<1.0	<1.0	<1.0	1.0	MG/KG
THALLIUM,TOTAL	<6.0	<6.0	<6.0	<6.0	6.0	MG/KG
ZINC,TOTAL	28	50	26	130	0.4	MG/KG

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
METAL RESULTS ARE CALCULATED ON A DRY WEIGHT BASIS

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: GS,DJJ,MEB
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4 PM
DATE COMPLETED: 08/30/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: MBS,MB,GV,NJB
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 35

	S1	S9	S10	S11	DETECTION LIMIT	UNITS	
	5'	5'	5'	5'			
EDI SAMPLE NO:	00044308	00044309	00044310	00044311			
CYANIDE, TOTAL	2.0	52	0.83	12	0.20	MG/KG	WET
PHENOL, TOTAL	0.60	<0.20	0.24	0.22	0.20	MG/KG	WET
XYLENE	<0.050	<0.050	<0.050	<0.050	0.050	MG/KG	

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
RESULTS ARE CALCULATED ON AN AS RECEIVED WEIGHT BASIS

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: DJJ,GS,MEB
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4 PM
DATE COMPLETED: 08/30/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: DJO,MKH
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 36

	S12	S13	S14	DETECTION LIMIT	UNITS
	10'	7.5'	2.5'		
EDI SAMPLE NO:	00044312	00044313	00044314		
ARSENIC,TOTAL	1.4	<0.4	1.4	0.4	MG/KG
ANTIMONY,TOTAL	<0.4	<0.4	<0.4	0.4	MG/KG
BERYLLIUM,TOTAL	<0.6	0.8	<0.6	0.6	MG/KG
CADMIUM,TOTAL	<0.6	<0.6	<0.6	0.6	MG/KG
CHROMIUM,TOTAL	3.0	<2.0	4.0	2.0	MG/KG
COPPER,TOTAL	11	<1.4	16	1.4	MG/KG
LEAD,TOTAL	57	<4.0	27	4.0	MG/KG
MERCURY,TOTAL	<0.2	<0.2	<0.2	0.2	MG/KG
NICKEL,TOTAL	5.0	<2.6	15	2.6	MG/KG
SELENIUM,TOTAL	<0.4	<0.4	<0.4	0.4	MG/KG
SILVER,TOTAL	<1.0	<1.0	<1.0	1.0	MG/KG
THALLIUM,TOTAL	<6.0	<6.0	<6.0	6.0	MG/KG
ZINC,TOTAL	440	24	200	0.4	MG/KG

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
METAL RESULTS ARE CALCULATED ON A DRY WEIGHT BASIS

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: DJJ,MEB,GS
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4 PM
DATE COMPLETED: 08/30/84
SCHEDULED COMPLETION: 8/20/84
ANALYST: MBS,MB,GV,NJB
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 37

	S12	S13	S14	DETECTION LIMIT	UNITS	
	10'	7.5'	2.5'			
EDI SAMPLE NO:	00044312	00044313	00044314			
CYANIDE, TOTAL	0.64	<0.20	0.38	0.20	MG/KG	WET
PHENOL, TOTAL	41	0.31	0.22	0.20	MG/KG	WET
XYLENE	<0.050	5.6	1.0	0.050	MG/KG	

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.
RESULTS ARE CALCULATED ON AN AS RECEIVED WEIGHT BASIS

ANALYTICAL RESULTS

Soils

S Series

Priority Pollutants - Volatile Fraction
and Base Neutral Fraction

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 2 2.5' (20288)

DATE SAMPLED: 07/18/84 TIME: 11:50
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/27/84

SAMPLE NO. 44236

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 2 2.5' (20288)

DATE SAMPLED: 07/18/84 TIME: 11:50 AM
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44236

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	2.3	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	2.3	1.0
NAPHTHALENE	*	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	*	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	1.0	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 3 5.0' (20288)

DATE SAMPLED: 07/18/84 TIME: 1:40 PM
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/27/84

SAMPLE NO. 44237

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 3 5.0' (20288)

DATE SAMPLED: 07/18/84 TIME: 01:40 PM
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44237

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	*	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	*	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	*	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 4 7.5' (20288)

DATE SAMPLED: 07/19/84 TIME: 11:35
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/27/84

SAMPLE NO. 44238

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	0.095	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 4 7.5' (20288)

DATE SAMPLED: 07/18/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44238

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	7.1	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	3.8	1.0
NAPHTHALENE	7.4	1.0	CHRYSENE	4.1	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	2.0	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	23.	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	1.8	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	4.1	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	4.1	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	22.	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 4 10.0' (20288)

DATE SAMPLED: 07/19/84 TIME: 11:40
DATE RECEIVED: 08/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/27/84

SAMPLE NO. 44239

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 4 10.0' (20288)

DATE SAMPLED: 07/19/84 TIME: 11:40 AM
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/31/84

SAMPLE NO. 44239

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	*	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	1.0	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	*	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	*	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 5 5.0' (20288)

DATE SAMPLED: 07/19/84 TIME: 12:08
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/27/84

SAMPLE NO. 44240

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	0.061	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	0.051	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	2.2	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 5 5.0' (20288)

DATE SAMPLED: 07/19/84 TIME: 12:08 PM
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44240

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	11.	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	6.7	1.0
NAPHTHALENE	16.	1.0	CHRYSENE	3.2	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	1.3	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	2.0	1.0
ACENAPHTHENE	2.6	1.0	BENZO (A) PYRENE	2.2	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	3.2	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	3.8	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	3.0	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	11.	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 5 7.5' (20288)

DATE SAMPLED: 07/19/84 TIME: 12:10
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/27/84

SAMPLE NO. 44241

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	150.	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	160.	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	890.	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 5 7.5' (20288)

DATE SAMPLED: 07/19/84 TIME: 12:10 PM
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44241

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	130	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	91.	1.0
NAPHTHALENE	570	1.0	CHRYSENE	31.	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	16.	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	20.	1.0
ACENAPHTHENE	44.	1.0	BENZO (A) PYRENE	27.	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	2.3	1.0
FLUORENE	91.	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	3.9	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	72.	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	58.	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	210	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 6 7.5' (20288)

DATE SAMPLED: 07/20/84 TIME: 10:20
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 08/27/84

SAMPLE NO. 44242

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING 6 7.5' (20288)

DATE SAMPLED: 07/20/84 TIME: 10:20 PM
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44242

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	1.0	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	*	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	1.0	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	1.3	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-1 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/17/84

SAMPLE NO. 44308

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-1 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/04/84

SAMPLE NO. 44308001

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	1.0	1.0	CHRYSENE	2.0	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	1.2	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	1.0	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-9 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/17/84

SAMPLE NO. 44309

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-9 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44309

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	8.8	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	8.0	1.0
NAPHTHALENE	3.0	1.0	CHRYSENE	5.3	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	2.0	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	4.8	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	4.0	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	4.3	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	1.2	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	3.6	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-10 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/17/84

SAMPLE NO. 44310

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-10 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44310

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	2.7	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	2.9	1.0
NAPHTHALENE	*	1.0	CHRYSENE	1.0	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	1.0	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	1.0	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	1.0	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	1.9	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-11 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/17/84

SAMPLE NO. 44311

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-11 5.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/04/84

SAMPLE NO. 44311

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	*	1.0	CHRYSENE	2.4	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	1.8	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	1.0	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	*	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-12 10.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/17/84

SAMPLE NO. 44312

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	*	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	*	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-12 10.0' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44312

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	85.	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	45.	1.0
NAPHTHALENE	57.	1.0	CHRYSENE	23.	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	9.8	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	21.	1.0
ACENAPHTHENE	20.	1.0	BENZO (A) PYRENE	29.	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	6.5	1.0
FLUORENE	34.	1.0	DIBENZO (A,H) ANTHRACENE	3.4	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	8.5	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	10.	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	19.	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	104	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-13;7.5'

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/24/84

SAMPLE NO. 44313

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	*	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	0.21	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	1.3	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-13 7.5' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44313

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	34.	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	19.	1.0
NAPHTHALENE	16.	1.0	CHRYSENE	7.8	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	4.0	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	8.4	1.0
ACENAPHTHENE	1.1	1.0	BENZO (A) PYRENE	9.0	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	3.5	1.0
FLUORENE	7.8	1.0	DIBENZO (A,H) ANTHRACENE	1.1	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	3.2	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	6.6	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	5.8	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	22.	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-14 2.5' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/17/84

SAMPLE NO. 44314

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	0.90	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	0.16	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	4.0	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: BORING S-14 2.5' (20288)

DATE SAMPLED: 07/20/84 TIME:
DATE RECEIVED: 07/20/84 TIME: 4:00 PM
DATE COMPLETED: 09/19/84

SAMPLE NO. 44314

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	37.	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	25.	1.0
NAPHTHALENE	5.3	1.0	CHRYSENE	11.	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	6.0	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	8.3	1.0
ACENAPHTHENE	3.1	1.0	BENZO (A) PYRENE	7.5	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	2.2	1.0
FLUORENE	22.	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	2.4	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	8.3	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	22.	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	57.	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

ANALYTICAL RESULTS

Surface Samples
Heavy Metals, Cyanide, Total Phenols, Xylene
Priority Pollutants - Base Neutrals
and Volatile Organic Fraction

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ANALYTICAL SERVICES

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
LOCATION: E. JEFFERSON; DETROIT, MI
SAMPLED BY: DJJ & GS
DESCRIPTION: SURFACE SAMPLE ANALYSIS

DATE SAMPLED: 09/05/84 TIME: PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/03/84
SCHEDULED COMPLETION: 10/03/84
ANALYST: DJO,MHK,MS
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 88

	SURFACE SAMPLE 1	SURFACE SAMPLE 2	SURFACE SAMPLE 3	SURFACE SAMPLE 4	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00045395	00045396	00045397	00045398		
ANTIMONY,TOTAL	<4.0	<0.40	<4.0	<0.40	0.40	MG/KG
ARSENIC,TOTAL	<4.0	1.2	4.2	34	0.40	MG/KG
BERYLLIUM,TOTAL	<15	<1.5	<15	<1.5	1.5	MG/KG
CADMIUM,TOTAL	<4.0	<0.40	<4.0	4.0	0.40	MG/KG
CHROMIUM,TOTAL	<21	<2.1	<21	26	2.1	MG/KG
COPPER,TOTAL	86	13	100	170	1.8	MG/KG
LEAD,TOTAL	<41	8.0	<41	660	3.4	MG/KG
MERCURY,TOTAL	<20	40	83	420	20	UG/KG
NICKEL,TOTAL	<22	22	<22	30	2.2	MG/KG
SELENIUM,TOTAL	0.14	<0.40	0.13	<0.40	0.40	MG/KG
SILVER,TOTAL	<10	<1.0	<10	<1.0	1.0	MG/KG
THALLIUM,TOTAL	<80	<8.0	<80	<8.0	8.0	MG/KG
ZINC,TOTAL	30	46	18	980	0.28	MG/KG

DETECTION LIMITS FOR SAMPLE 1 (45395) AND SAMPLE 3 (45397) ARE HIGHER DUE TO THE COMPOSITION OF THE SAMPLES

EDI ENGINEERING & SCIENCE, INC.
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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: DETROIT--STATION B (20288)
SAMPLED BY: DJJ & GS
DESCRIPTION: SURFACE SAMPLE ANALYSIS

DATE SAMPLED: 09/05/84 TIME: PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/03/84
SCHEDULED COMPLETION: 10/03/84
ANALYST: DJO,MKH,MB
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 90

	SURFACE SAMPLE 5	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00045399		
ANTIMONY,TOTAL	<0.40	0.40	MG/KG
ARSENIC,TOTAL	0.98	4.0	MG/KG
BERYLLIUM,TOTAL	<1.5	1.5	MG/KG
CADMIUM,TOTAL	2.6	0.40	MG/KG
CHROMIUM,TOTAL	110	2.1	MG/KG
COPPER,TOTAL	120	1.8	MG/KG
LEAD,TOTAL	420	3.4	MG/KG
MERCURY,TOTAL	120	20	UG/KG
NICKEL,TOTAL	22	2.2	MG/KG
SELENIUM,TOTAL	0.40	0.40	MG/KG
SILVER,TOTAL	<1.0	1.0	MG/KG
THALLIUM,TOTAL	<8.0	8.0	MG/KG
ZINC,TOTAL	400	0.28	MG/KG

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: DETROIT--STATION B (20288)
SAMPLED BY: DJJ & GS
DESCRIPTION: SURFACE SAMPLE ANALYSIS

DATE SAMPLED: 09/05/84 TIME: PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/03/84
SCHEDULED COMPLETION: 10/03/84
ANALYST: MBS,MB,MK,KLM
QUALITY CONTROL REVIEW BY: DMF,KLM
WORKSHEET NO: 89

	SURFACE SAMPLE 1	SURFACE SAMPLE 2	SURFACE SAMPLE 3	SURFACE SAMPLE 4	DETECTION LIMIT	UNITS	
EDI SAMPLE NO:	00045395	00045396	00045397	00045398			
CYANIDE, TOTAL	<0.20	<0.20	<0.20	3.2	0.20	MG/KG	WET
PHENOL, TOTAL	<0.50	<0.50	<0.50	0.67	0.50	MG/KG	WET
XYLENE	<0.1	<0.1	<0.1	<0.1	0.1	MG/KG	WET

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: DETROIT--STATION B (20288)
SAMPLED BY: DJJ & GS
DESCRIPTION: SURFACE SAMPLE ANALYSIS

DATE SAMPLED: 09/05/84 TIME: PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/03/84
SCHEDULED COMPLETION: 10/03/84
ANALYST: MBS,MB,MK
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 91

	SURFACE SAMPLE 5	DETECTION LIMIT	UNITS	
EDI SAMPLE NO:	00045399			
CYANIDE, TOTAL	0.29	0.20	MG/KG	WET
PHENOL, TOTAL	0.70	0.50	MG/KG	WET
XYLENE	<0.1	0.1	MG/KG	WET

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #1 (20288)

DATE SAMPLED: 09/05/84 TIME: 4:45 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45395

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #1 (20288)

DATE SAMPLED: 09/05/84 TIME: 4:45 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45395

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	*	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	1.3	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	1.1	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	*	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	3.1	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #2 (20288)

DATE SAMPLED: 09/05/84 TIME: 5:20 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45396

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #2 (20288)

DATE SAMPLED: 09/05/84 TIME: 5:20 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45396

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	*	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	*	1.0
NAPHTHALENE	*	1.0	CHRYSENE	*	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	*	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	*	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	*	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	*	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	*	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #3 (20288)

DATE SAMPLED: 09/05/84 TIME: 5:40 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45397

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #3 (20288)

DATE SAMPLED: 09/05/84 TIME: 5:40 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45397

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	1.6	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	1.1	1.0
NAPHTHALENE	*	1.0	CHRYSENE	1.1	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	1.8	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	*	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	13	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	18	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	6.1	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	5.3	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	4.2	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	2.5	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	3.7	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	5.0	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #4 (20288)

DATE SAMPLED: 09/05/84 TIME: 6:10 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45398

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #4 (20288)

DATE SAMPLED: 09/05/84 TIME: 6:10 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45398

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	45	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	46	1.0
NAPHTHALENE	1.0	1.0	CHRYSENE	56	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	2.4	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	42	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	46	1.0
ACENAPHTHENE	2.7	1.0	BENZO (A) PYRENE	26	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	144	1.0
FLUORENE	21	1.0	DIBENZO (A,H) ANTHRACENE	20	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	72	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	2.1	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	5.8	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	28	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	2.0	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	2.9	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #5 (20288)

DATE SAMPLED: 09/05/84 TIME: 6:20 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 45399

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	*	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	*	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	*	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: SURFACE SAMPLE #5 (20288)

DATE SAMPLED: 09/05/84 TIME: 6:20 PM
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 10/01/84

SAMPLE NO. 43599

COMPOUND	RESULT (MG/KG)	D.L.	COMPOUND	RESULT (MG/KG)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	2.3	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	2.9	1.0
NAPHTHALENE	*	1.0	CHRYSENE	2.1	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	2.3	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	47	1.0
ACENAPHTHENE	*	1.0	BENZO (A) PYRENE	11	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	180	1.0
FLUORENE	*	1.0	DIBENZO (A,H) ANTHRACENE	*	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	130	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	*	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	1.7	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	1.2	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

ANALYTICAL RESULTS
Water Samples
W Series
Heavy Metals, Cyanide, Total Phenols, Xylene
Priority Pollutants - Base Neutrals
and Volatile Organic Fraction

Station B

20356

EDI ENGINEERING & SCIENCE, INC.
611 CASCADE WEST PARKWAY, S.E.
GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES

CLIENT: MICH-CON
PROJECT NO.: 25490
LOCATION: SITE B
SAMPLED BY: GS & DJJ
DESCRIPTION: SITE INVESTIGATION--20288

DATE SAMPLED: 09/05/84 TIME:
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 09/28/84
SCHEDULED COMPLETION: 9/28/84
ANALYST: DJO,MKH
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 38

	W2	W3	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	00044317	00044318		
ARSENIC,TOTAL	35	<2.0	2.0	UG/L
ANTIMONY,TOTAL	<2.0	2.3	2.0	UG/L
BERYLLIUM,TOTAL	<0.04	<0.04	0.04	MG/L
CADMIUM,TOTAL	<0.02	<0.02	0.02	MG/L
CHROMIUM,TOTAL	<0.10	0.25	0.10	MG/L
COPPER,TOTAL	<0.09	<0.09	0.09	MG/L
LEAD,TOTAL	<0.17	<0.17	0.17	MG/L
NICKEL,TOTAL	<0.11	<0.11	0.11	MG/L
SELENIUM,TOTAL	<2.0	7.0	2.0	UG/L
SILVER,TOTAL	<0.05	<0.05	0.05	MG/L
THALLIUM,TOTAL	<0.4	<0.4	0.4	MG/L
ZINC,TOTAL	22	2.8	0.02	MG/L
MERCURY,TOTAL	<2.0	4.2	2.0	UG/L

ANALYSIS BY STANDRAD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

ANALYTICAL SERVICES
EDI LABORATORY REPORT

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
LOCATION: E. JEFFERSON; DETROIT, MI
SAMPLED BY: GS & DJJ
DESCRIPTION: SITE INVESTIGATION

DATE SAMPLED: 09/05/84 TIME:
DATE RECEIVED: 09/06/84 TIME: 6:30 PM
DATE COMPLETED: 09/28/84
SCHEDULED COMPLETION: 9/28/84
ANALYST: MBS,MB
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 39

	W-2	W-3	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	44317	44318		
CYANIDE, TOTAL	1.1	6.8	0.05	MG/L
PHENOL,TOTAL	0.92	0.46	0.05	MG/L
XYLENE	3.9	1.0	0.010	MG/L

ANALYSIS BY STANDARD METHODS, 15TH EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

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ANALYTICAL SERVICES
EDI LABORATORY REPORT

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
LOCATION: STATION "B", DETROIT, MI
SAMPLED BY: DMT
DESCRIPTION: WATER CONTAMINATION STUDY

DATE SAMPLED: 12/03/84 TIME: PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 01/17/85
SCHEDULED COMPLETION: 1/17/85
ANALYST: MBS,MK
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 1

	W-4	W-5	W-6	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	47587	47588	47589		
ANTIMONY,TOTAL	<2.0	<2.0	<2.0	2.0	UG/L
ARSENIC,TOTAL	<2.0	<2.0	3.4	2.0	UG/L
BERYLLIUM,TOTAL	<0.07	<0.07	<0.07	0.07	MG/L
CADMIUM,TOTAL	<0.03	<0.03	<0.03	0.03	MG/L
CHROMIUM,TOTAL	<0.09	<0.09	<0.09	0.09	MG/L
COPPER,TOTAL	<0.10	<0.10	<0.10	0.10	MG/L
LEAD,TOTAL	<0.25	<0.25	<0.25	0.25	MG/L
MERCURY,TOTAL	0.22	0.38	0.50	0.20	UG/L
NICKEL,TOTAL	<0.12	<0.12	<0.12	0.12	MG/L
SELENIUM,TOTAL	<2.0	<2.0	<2.0	2.0	UG/L
SILVER,TOTAL	<0.05	<0.05	<0.05	0.05	MG/L
THALLIUM,TOTAL	<0.36	<0.36	<0.36	0.36	MG/L
ZINC,TOTAL	2.0	5.1	39	0.02	MG/L

ANALYSIS BY STANDARD METHODS, 15th EDITION, AND/OR METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, EPA, 1983.

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ANALYTICAL SERVICES
EDI LABORATORY REPORT

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
LOCATION: STATION "B", DETROIT, MI
SAMPLED BY: DMT
DESCRIPTION: WATER CONTAMINATION STUDY

DATE SAMPLED: 12/03/84 TIME: PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 01/17/85
SCHEDULED COMPLETION: 1/17/85
ANALYST: PG,MS
QUALITY CONTROL REVIEW BY: DMF
WORKSHEET NO: 2

	W-4	W-5	W-6	DETECTION LIMIT	UNITS
EDI SAMPLE NO:	47587	47588	47589		
CYANIDE, TOTAL	0.05	0.44	5.0	0.01	MG/L
PHENOL,TOTAL	0.03	0.05	0.11	0.01	MG/L
XYLENE	<0.010	<0.010	0.29	0.010	MG/L
CYANIDE,AMENABLE	N.D.	0.16	4.7	0.01	MG/L

N.D.=NO DETECTABLE AMOUNTS OF CYANIDE ARE AMENABLE TO CHLORINATION.

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GRAND RAPIDS, MICHIGAN 49506

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: WELL #2 - STATION B (20288)

DATE SAMPLED: 09/05/84 TIME: 4:00 PM
DATE RECEIVED: 09/06/84 TIME: 8:00 AM
DATE COMPLETED: 10/01/84

SAMPLE NO. 44317

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
CHLOROMETHANE	*	0.1	1,2-DICHLOROPROPANE	*	0.1
BROMOMETHANE	*	0.1	1,1,2-TRICHLOROETHANE	*	0.1
VINYL CHLORIDE	*	0.1	BENZENE	23.	0.1
CHLOROETHANE	*	0.1	BROMOFORM	*	0.1
METHYLENE CHLORIDE	*	0.1	1,1,2,2-TETRACHLOROETHANE	*	0.1
TRICHLOROFLUOROMETHANE	*	0.1	TETRACHLOROETHYLENE	*	0.1
1,1-DICHLOROETHYLENE	*	0.1	TOLUENE	2.8	0.1
1,1-DICHLOROETHANE	*	0.1	CHLOROBENZENE	*	0.1
TRANS-1,2-DICHLOROETHYLENE	*	0.1	ETHYL BENZENE	6.7	0.1
CHLOROFORM	*	0.1	ACROLEIN	*	0.1
1,2-DICHLOROETHANE	*	0.1	ACRYLONITRILE	*	0.1
1,1,1-TRICHLOROETHANE	*	0.1	DICHLORODIFLUOROMETHANE	*	0.1
CARBON TETRACHLORIDE	*	0.1	CHLORODIBROMOMETHANE	*	0.1
BROMODICHLOROMETHANE	*	0.1	CIS-1,3-DICHLOROPROPYLENE	*	0.1
TRICHLOROETHYLENE	*	0.1	TRANS-1,3-DICHLOROPROPYLENE	*	0.1
2-CHLOROETHYLVINYL ETHER	*	0.1	BIS-(CHLOROMETHYL) ETHER	*	0.1

*COMPOUND NOT PRESENT AT DETECTION LIMIT

EDI ENGINEERING & SCIENCE, INC.
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ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: WELL #2 - STATION B (20288)

DATE SAMPLED: 09/05/84 TIME: 4:00 PM
DATE RECEIVED: 09/06/84 TIME: 8:00 AM
DATE COMPLETED: 10/01/84

SAMPLE NO. 44317

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
HEXACHLOROETHANE	*	5.0	BENZIDINE	*	5.0
HEXACHLOROBUTADIENE	*	5.0	PYRENE	170	5.0
1,2,4-TRICHLOROBENZENE	*	5.0	FLUORANTHENE	200	5.0
NAPHTHALENE	810	5.0	CHRYSENE	250	5.0
HEXACHLOROCYCLOPENTADIENE	*	5.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	5.0
NITROBENZENE	*	5.0	BENZO (A) ANTHRACENE	230	5.0
2-CHLORONAPHTHALENE	*	5.0	BENZO (K) FLUORANTHENE	500	5.0
ACENAPHTHENE	91.	5.0	BENZO (A) PYRENE	820	5.0
ISOPHORONE	*	5.0	INDENO (1,2,3-CD) PYRENE	320	5.0
FLUORENE	170	5.0	DIBENZO (A,H) ANTHRACENE	99.	5.0
2,4-DINITROTOLUENE	*	5.0	BENZO (G,H,I) PERYLENE	460	5.0
1,2-DIPHENYLHYDRAZINE	*	5.0	3,3'-DICHLOROBENZIDINE	*	5.0
2,6-DINITROTOLUENE	*	5.0	TETRACHLORODIBENZO-P-DIOXIN	*	5.0
N-NITROSODIPHENYLAMINE	*	5.0	N-NITROSO-DI-N-PROPYLAMINE	*	5.0
HEXACHLOROBENZENE	*	5.0	ACENAPHTHYLENE	360	5.0
4-BROMOPHENYL PHENYL ETHER	*	5.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	5.0
4-CHLOROPHENYL PHENYL ETHER	*	5.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	5.0
ANTHRACENE	150	5.0	1,2-DICHLOROBENZENE	*	5.0
PHENANTHRENE	280	5.0	1,3-DICHLOROBENZENE	*	5.0
DIMETHYL PHTHALATE	*	5.0	1,4-DICHLOROBENZENE	*	5.0
BIS-(2-CHLOROETHYL) ETHER	*	5.0	N-NITROSODIMETHYLAMINE	*	5.0
DI-N-BUTYL PHTHALATE	*	5.0	BENZO (B) FLUORANTHENE	*	5.0
DIETHYL PHTHALATE	*	5.0	DI-N-OCTYLPHTHALATE	*	5.0
BUTYL BENZYL PHTHALATE	*	5.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: WELL #3 - STATION B (20288)

DATE SAMPLED: 09/05/84 TIME: 5:15 PM
DATE RECEIVED: 09/06/84 TIME: 8:00 AM
DATE COMPLETED: 10/01/84

SAMPLE NO. 44318

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
CHLOROMETHANE	*	0.050	1,2-DICHLOROPROPANE	*	0.050
BROMOMETHANE	*	0.050	1,1,2-TRICHLOROETHANE	*	0.050
VINYL CHLORIDE	*	0.050	BENZENE	0.18	0.050
CHLOROETHANE	*	0.050	BROMOFORM	*	0.050
METHYLENE CHLORIDE	*	0.050	1,1,2,2-TETRACHLOROETHANE	*	0.050
TRICHLOROFLUOROMETHANE	*	0.050	TETRACHLOROETHYLENE	*	0.050
1,1-DICHLOROETHYLENE	*	0.050	TOLUENE	0.054	0.050
1,1-DICHLOROETHANE	*	0.050	CHLOROBENZENE	*	0.050
TRANS-1,2-DICHLOROETHYLENE	*	0.050	ETHYL BENZENE	0.27	0.050
CHLOROFORM	*	0.050	ACROLEIN	*	0.050
1,2-DICHLOROETHANE	*	0.050	ACRYLONITRILE	*	0.050
1,1,1-TRICHLOROETHANE	*	0.050	DICHLORODIFLUOROMETHANE	*	0.050
CARBON TETRACHLORIDE	*	0.050	CHLORODIBROMOMETHANE	*	0.050
BROMODICHLOROMETHANE	*	0.050	CIS-1,3-DICHLOROPROPYLENE	*	0.050
TRICHLOROETHYLENE	*	0.050	TRANS-1,3-DICHLOROPROPYLENE	*	0.050
2-CHLOROETHYLVINYL ETHER	*	0.050	BIS-(CHLOROMETHYL) ETHER	*	0.050

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICH-CON
PROJECT NO.: 25490
SAMPLE: WELL #3 - STATION B (20288)

DATE SAMPLED: 09/05/84 TIME: 5:15 PM
DATE RECEIVED: 09/06/84 TIME: 8:00 AM
DATE COMPLETED: 10/01/84

SAMPLE NO. 44318

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
HEXACHLOROETHANE	*	1.0	BENZIDINE	*	1.0
HEXACHLOROBUTADIENE	*	1.0	PYRENE	13.	1.0
1,2,4-TRICHLOROBENZENE	*	1.0	FLUORANTHENE	7.4	1.0
NAPHTHALENE	66.	1.0	CHRYSENE	7.9	1.0
HEXACHLOROCYCLOPENTADIENE	*	1.0	BIS-(2-ETHYL HEXYL)-PHTHALATE	1.0	1.0
NITROBENZENE	*	1.0	BENZO (A) ANTHRACENE	7.3	1.0
2-CHLORONAPHTHALENE	*	1.0	BENZO (K) FLUORANTHENE	45.	1.0
ACENAPHTHENE	1.7	1.0	BENZO (A) PYRENE	32.	1.0
ISOPHORONE	*	1.0	INDENO (1,2,3-CD) PYRENE	49.	1.0
FLUORENE	3.4	1.0	DIBENZO (A,H) ANTHRACENE	10.	1.0
2,4-DINITROTOLUENE	*	1.0	BENZO (G,H,I) PERYLENE	58.	1.0
1,2-DIPHENYLHYDRAZINE	*	1.0	3,3'-DICHLOROBENZIDINE	*	1.0
2,6-DINITROTOLUENE	*	1.0	TETRACHLORODIBENZO-P-DIOXIN	*	1.0
N-NITROSODIPHENYLAMINE	*	1.0	N-NITROSO-DI-N-PROPYLAMINE	*	1.0
HEXACHLOROBENZENE	*	1.0	ACENAPHTHYLENE	8.7	1.0
4-BROMOPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROISOPROPYL)-ETHER	*	1.0
4-CHLOROPHENYL PHENYL ETHER	*	1.0	BIS(2-CHLOROEXTHOXY)-METHANE	*	1.0
ANTHRACENE	*	1.0	1,2-DICHLOROBENZENE	*	1.0
PHENANTHRENE	19.	1.0	1,3-DICHLOROBENZENE	*	1.0
DIMETHYL PHTHALATE	*	1.0	1,4-DICHLOROBENZENE	*	1.0
BIS-(2-CHLOROETHYL) ETHER	*	1.0	N-NITROSODIMETHYLAMINE	*	1.0
DI-N-BUTYL PHTHALATE	*	1.0	BENZO (B) FLUORANTHENE	*	1.0
DIETHYL PHTHALATE	*	1.0	DI-N-OCTYLPHTHALATE	*	1.0
BUTYL BENZYL PHTHALATE	*	1.0			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
SAMPLE: W-4

DATE SAMPLED: 12/03/84 TIME: 4:30 PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 12/11/84

SAMPLE NO. 47587

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
CHLOROMETHANE	*	0.010	1,2-DICHLOROPROPANE	*	0.001
BROMOMETHANE	*	0.010	1,1,2-TRICHLOROETHANE	*	0.001
VINYL CHLORIDE	*	0.010	BENZENE	*	0.001
CHLOROETHANE	*	0.010	BROMOFORM	*	0.001
METHYLENE CHLORIDE	*	0.001	1,1,2,2-TETRACHLOROETHANE	*	0.001
TRICHLOROFLUOROMETHANE	*	0.001	TETRACHLOROETHYLENE	*	0.001
1,1-DICHLOROETHYLENE	*	0.001	TOLUENE	*	0.001
1,1-DICHLOROETHANE	*	0.001	CHLOROBENZENE	*	0.001
TRANS-1,2-DICHLOROETHYLENE	*	0.001	ETHYL BENZENE	*	0.001
CHLOROFORM	*	0.001	ACROLEIN	*	0.010
1,2-DICHLOROETHANE	*	0.001	ACRYLONITRILE	*	0.010
1,1,1-TRICHLOROETHANE	0.002	0.001	DICHLORODIFLUOROMETHANE	*	0.010
CARBON TETRACHLORIDE	*	0.001	CHLORODIBROMOMETHANE	*	0.001
BROMODICHLOROMETHANE	*	0.001	CIS-1,3-DICHLOROPROPYLENE	*	0.001
TRICHLOROETHYLENE	*	0.001	TRANS-1,3-DICHLOROPROPYLENE	*	0.001
2-CHLOROETHYLVINYL ETHER	*	0.010	BIS-(CHLOROMETHYL) ETHER	*	0.010

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
SAMPLE: W-4

DATE SAMPLED: 12/03/84 TIME: 4:30 PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 01/07/85

SAMPLE NO. 47587

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
HEXACHLOROETHANE	*	0.001	BENZIDINE	*	0.010
HEXACHLOROBUTADIENE	*	0.001	PYRENE	0.002	0.001
1,2,4-TRICHLOROBENZENE	*	0.001	FLUORANTHENE	0.001	0.001
NAPHTHALENE	*	0.001	CHRYSENE	*	0.010
HEXACHLOROCYCLOPENTADIENE	*	0.001	BIS-(2-ETHYL HEXYL)-PHTHALATE	0.002	0.001
NITROBENZENE	*	0.001	BENZO (A) ANTHRACENE	*	0.010
2-CHLORONAPHTHALENE	*	0.001	BENZO (K) FLUORANTHENE	*	0.010
ACENAPHTHENE	*	0.001	BENZO (A) PYRENE	*	0.010
ISOPHORONE	*	0.001	INDENO (1,2,3-CD) PYRENE	*	0.010
FLUORENE	*	0.001	DIBENZO (A,H) ANTHRACENE	*	0.010
2,4-DINITROTOLUENE	*	0.001	BENZO (G,H,I) PERYLENE	*	0.010
1,2-DIPHENYLHYDRAZINE	*	0.001	3,3'-DICHLOROBENZIDINE	*	0.010
2,6-DINITROTOLUENE	*	0.001	TETRACHLORODIBENZO-P-DIOXIN	*	0.010
N-NITROSODIPHENYLAMINE	*	0.001	N-NITROSO-DI-N-PROPYLAMINE	*	0.001
HEXACHLOROBENZENE	*	0.001	ACENAPHTHYLENE	*	0.001
4-BROMOPHENYL PHENYL ETHER	*	0.001	BIS(2-CHLOROISOPROPYL)-ETHER	*	0.001
4-CHLOROPHENYL PHENYL ETHER	*	0.001	BIS(2-CHLOROEXTHOXY)-METHANE	*	0.001
ANTHRACENE	*	0.001	1,2-DICHLOROBENZENE	*	0.001
PHENANTHRENE	0.009	0.001	1,3-DICHLOROBENZENE	*	0.001
DIMETHYL PHTHALATE	*	0.001	1,4-DICHLOROBENZENE	*	0.001
BIS-(2-CHLOROETHYL) ETHER	*	0.001	N-NITROSODIMETHYLAMINE	*	0.010
DI-N-BUTYL PHTHALATE	*	0.001	BENZO (B) FLUORANTHENE	*	0.010
DIETHYL PHTHALATE	*	0.001	DI-N-OCTYLPHTHALATE	*	0.001
BUTYL BENZYL PHTHALATE	*	0.001			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
SAMPLE: W-5

DATE SAMPLED: 12/03/84 TIME: 6:00 PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 12/11/84

SAMPLE NO. 47588

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
CHLOROMETHANE	*	0.010	1,2-DICHLOROPROPANE	*	0.001
BROMOMETHANE	*	0.010	1,1,2-TRICHLOROETHANE	*	0.001
VINYL CHLORIDE	*	0.010	BENZENE	0.004	0.001
CHLOROETHANE	*	0.010	BROMOFORM	*	0.001
METHYLENE CHLORIDE	*	0.001	1,1,2,2-TETRACHLOROETHANE	*	0.001
TRICHLOROFLUOROMETHANE	*	0.001	TETRACHLOROETHYLENE	*	0.001
1,1-DICHLOROETHYLENE	*	0.001	TOLUENE	*	0.001
1,1-DICHLOROETHANE	*	0.001	CHLOROBENZENE	*	0.001
TRANS-1,2-DICHLOROETHYLENE	*	0.001	ETHYL BENZENE	*	0.001
CHLOROFORM	*	0.001	ACROLEIN	*	0.010
1,2-DICHLOROETHANE	*	0.001	ACRYLONITRILE	*	0.010
1,1,1-TRICHLOROETHANE	*	0.001	DICHLORODIFLUOROMETHANE	*	0.010
CARBON TETRACHLORIDE	*	0.001	CHLORODIBROMOMETHANE	*	0.001
BROMODICHLOROMETHANE	*	0.001	CIS-1,3-DICHLOROPROPYLENE	*	0.001
TRICHLOROETHYLENE	*	0.001	TRANS-1,3-DICHLOROPROPYLENE	*	0.001
2-CHLOROETHYLVINYL ETHER	*	0.010	BIS-(CHLOROMETHYL) ETHER	*	0.010

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
SAMPLE: W-5

DATE SAMPLED: 12/03/84 TIME: 6:00 PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 01/07/85

SAMPLE NO. 47588

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
HEXACHLOROETHANE	*	0.001	BENZIDINE	*	0.010
HEXACHLOROBUTADIENE	*	0.001	PYRENE	0.021	0.001
1,2,4-TRICHLOROBENZENE	*	0.001	FLUORANTHENE	0.019	0.001
NAPHTHALENE	0.013	0.001	CHRYSENE	*	0.010
HEXACHLOROCYCLOPENTADIENE	*	0.001	BIS-(2-ETHYL HEXYL)-PHTHALATE	0.007	0.001
NITROBENZENE	*	0.001	BENZO (A) ANTHRACENE	*	0.010
2-CHLORONAPHTHALENE	*	0.001	BENZO (K) FLUORANTHENE	*	0.010
ACENAPHTHENE	0.016	0.001	BENZO (A) PYRENE	*	0.010
ISOPHORONE	*	0.001	INDENO (1,2,3-CD) PYRENE	*	0.010
FLUORENE	0.012	0.001	DIBENZO (A,H) ANTHRACENE	*	0.010
2,4-DINITROTOLUENE	*	0.001	BENZO (G,H,I) PERYLENE	*	0.010
1,2-DIPHENYLHYDRAZINE	*	0.001	3,3'-DICHLOROBENZIDINE	*	0.010
2,6-DINITROTOLUENE	*	0.001	TETRACHLORODIBENZO-P-DIOXIN	*	0.010
N-NITROSODIPHENYLAMINE	*	0.001	N-NITROSO-DI-N-PROPYLAMINE	*	0.001
HEXACHLOROBENZENE	*	0.001	ACENAPHTHYLENE	0.003	0.001
4-BROMOPHENYL PHENYL ETHER	*	0.001	BIS(2-CHLOROISOPROPYL)-ETHER	*	0.001
4-CHLOROPHENYL PHENYL ETHER	*	0.001	BIS(2-CHLOROEXTHOXY)-METHANE	*	0.001
ANTHRACENE	0.002	0.001	1,2-DICHLOROBENZENE	*	0.001
PHENANTHRENE	0.002	0.001	1,3-DICHLOROBENZENE	*	0.001
DIMETHYL PHTHALATE	*	0.001	1,4-DICHLOROBENZENE	*	0.001
BIS-(2-CHLOROETHYL) ETHER	*	0.001	N-NITROSODIMETHYLAMINE	*	0.010
DI-N-BUTYL PHTHALATE	0.001	0.001	BENZO (B) FLUORANTHENE	*	0.010
DIETHYL PHTHALATE	*	0.001	DI-N-OCTYLPHTHALATE	*	0.001
BUTYL BENZYL PHTHALATE	*	0.001			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 1
VOLATILE FRACTION

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
SAMPLE: W-6

DATE SAMPLED: 12/03/84 TIME: 5:00 PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 12/11/84

SAMPLE NO. 47589

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
CHLOROMETHANE	*	0.010	1,2-DICHLOROPROPANE	*	0.001
BROMOMETHANE	*	0.010	1,1,2-TRICHLOROETHANE	*	0.001
VINYL CHLORIDE	*	0.010	BENZENE	0.26	0.001
CHLOROETHANE	*	0.010	BROMOFORM	*	0.001
METHYLENE CHLORIDE	*	0.001	1,1,2,2-TETRACHLOROETHANE	*	0.001
TRICHLOROFLUOROMETHANE	*	0.001	TETRACHLOROETHYLENE	*	0.001
1,1-DICHLOROETHYLENE	*	0.001	TOLUENE	0.035	0.001
1,1-DICHLOROETHANE	*	0.001	CHLOROBENZENE	*	0.001
TRANS-1,2-DICHLOROETHYLENE	*	0.001	ETHYL BENZENE	0.49	0.001
CHLOROFORM	*	0.001	ACROLEIN	*	0.010
1,2-DICHLOROETHANE	*	0.001	ACRYLONITRILE	*	0.010
1,1,1-TRICHLOROETHANE	*	0.001	DICHLORODIFLUOROMETHANE	*	0.010
CARBON TETRACHLORIDE	*	0.001	CHLORODIBROMOMETHANE	*	0.001
BROMODICHLOROMETHANE	*	0.001	CIS-1,3-DICHLOROPROPYLENE	*	0.001
TRICHLOROETHYLENE	*	0.001	TRANS-1,3-DICHLOROPROPYLENE	*	0.001
2-CHLOROETHYLVINYL ETHER	*	0.010	BIS-(CHLOROMETHYL) ETHER	*	0.010

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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ANALYTICAL SERVICES
PRIORITY POLLUTANT ANALYSIS

TABLE 2
BASE-NEUTRAL FRACTION

CLIENT: MICHCON - STATION "B" (20288)
PROJECT NO.: 25501
SAMPLE: W-6

DATE SAMPLED: 12/03/84 TIME: 5:00 PM
DATE RECEIVED: 12/04/84 TIME: 7:00 AM
DATE COMPLETED: 01/07/85

SAMPLE NO. 47589

COMPOUND	RESULT (MG/L)	D.L.	COMPOUND	RESULT (MG/L)	D.L.
HEXACHLOROETHANE	*	0.001	BENZIDINE	*	0.010
HEXACHLOROBUTADIENE	*	0.001	PYRENE	0.26	0.001
1,2,4-TRICHLOROBENZENE	*	0.001	FLUORANTHENE	0.18	0.001
NAPHTHALENE	3.0	0.001	CHRYSENE	*	0.010
HEXACHLOROCYCLOPENTADIENE	*	0.001	BIS-(2-ETHYL HEXYL)-PHTHALATE	*	0.001
NITROBENZENE	*	0.001	BENZO (A) ANTHRACENE	0.094	0.010
2-CHLORONAPHTHALENE	*	0.001	BENZO (K) FLUORANTHENE	*	0.010
ACENAPHTHENE	0.16	0.001	BENZO (A) PYRENE	*	0.010
ISOPHORONE	*	0.001	INDENO (1,2,3-CD) PYRENE	*	0.010
FLUORENE	0.32	0.001	DIBENZO (A,H) ANTHRACENE	*	0.010
2,4-DINITROTOLUENE	*	0.001	BENZO (G,H,I) PERYLENE	*	0.010
1,2-DIPHENYLHYDRAZINE	*	0.001	3,3'-DICHLOROBENZIDINE	*	0.010
2,6-DINITROTOLUENE	*	0.001	TETRACHLORODIBENZO-P-DIOXIN	*	0.010
N-NITROSODIPHENYLAMINE	*	0.001	N-NITROSO-DI-N-PROPYLAMINE	*	0.001
HEXACHLOROBENZENE	*	0.001	ACENAPHTHYLENE	0.044	0.001
4-BROMOPHENYL PHENYL ETHER	*	0.001	BIS(2-CHLOROISOPROPYL)-ETHER	*	0.001
4-CHLOROPHENYL PHENYL ETHER	*	0.001	BIS(2-CHLOROEXTHOXY)-METHANE	*	0.001
ANTHRACENE	0.059	0.001	1,2-DICHLOROBENZENE	*	0.001
PHENANTHRENE	0.76	0.001	1,3-DICHLOROBENZENE	*	0.001
DIMETHYL PHTHALATE	*	0.001	1,4-DICHLOROBENZENE	*	0.001
BIS-(2-CHLOROETHYL) ETHER	*	0.001	N-NITROSODIMETHYLAMINE	*	0.010
DI-N-BUTYL PHTHALATE	*	0.001	BENZO (B) FLUORANTHENE	*	0.010
DIETHYL PHTHALATE	*	0.001	DI-N-OCTYLPHTHALATE	*	0.001
BUTYL BENZYL PHTHALATE	*	0.001			

*COMPOUND NOT PRESENT AT DETECTION LIMIT

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AREA WELL LOGS

T2S R12E

T2S R11E

T2S R10E

T2S R11E

T1S R12E

Township 2S - Range 12E

Detroit (Wayne County)

Michigan Naval Armory Well 1935 8" Well

Location: Just east of Belle Isle Bridge and south of Jefferson Avenue in Detroit, T. 2S., R. 12E.

Elevation: 580 feet above sea level (est.)

Record by: Kenneth Gorton from driller's log furnished by Eric F. Hyde, Engineer. Driller - Keystone Drilling Co., Birmingham, Mich.

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
Drift:		
Clay	70	70
Sand, fine	40	110
Sand, fine, and hardpan	38	148
DEVONIAN:		
Traverse Formation:		
Shale	22	170
Dundee Formation:		
Lime, hard, brown	58	228
Lime, gray, a little softer	37	265
Detroit River Formation:		
Lime, gray, coarse and porous	65	330
Lime, brown, hard	15	345
Lime, gray, porous	78	423
Lime, gray, coarse, porous	117	540
Lime, brown (150 GPM water at 570 ft.)	30	570

(C)

?-2S-12E
Detroit Twp., (Wayne Co.)

TD 2097 in Niagara(?)

Exploratory
Dry

Stroh's Brewery Well
(Cable)

Location: At plant on Elizabeth & Gratiot Ave., Detroit; Lots 172-178 inclusive, subdivision of Rivard Farm
Elevation: About 620 feet A. T.

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
Drift:		
Clay, blue	110	110
Hardpan	30	140
Boulders	14	154
DEVONIAN:		
Traverse:		
"Traverse"	146	300
Dundee-Detroit River:		
Limestone, "Dundee" & "Detroit River" dolomites (sulphur water in the latter)	315	615
Sylvania:		
Sandstone, "Sylvania"	85	700
SILURIAN:		
Bass Island:		
Lime rock hard at 730'; sandy at 780'; hardpan 900 to 1150'	450	1150
Salina: (Possibly some Niagaran in lower part)		
Salt	55	1205
Limestone	201	1406
Salt	409	1815
Limestone (lower part Niagara?)	282	2097
	(947+)	
TOTAL DEPTH		2097

Note: See pub. 14, Geological Series 11, Page 104, 1912

(c)

2-2S-12E
Detroit Twp., (Wayne Co.)

TD 570 in Detroit River

Deepened to 790 in Sylvania

Mich. Naval Armory Well 1935

8" well

Location: Just east of Belle Isle Bridge & south of Jefferson Ave. in Detroit, T 2S, R 12E. Close to SW corner section 2-2S-12E.

Elevation: 580 feet above sea level (est.)

Record by: K. Gorton from driller's log furnished by E. F. Hyde, Engineer.
Driller: Keystone Drlg. Co., Birmingham, Mich.

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
Drift:		
Clay	70	70
Sand, fine	40	110
Sand, fine & hardpan	38	148
DEVONIAN:		
Traverse:		
Shale	22	170
Dundee-Detroit River:		
Lime, brown, hard	58	228
Lime, gray, a little softer	37	265
Lime, gray, coarse & porous	65	330
Lime, brown, hard	15	345
" , gray, porous	78	423
" " , " , coarse	117	540
Lime, brown (150 GPM water at 570')	30	570
Dundee-Detroit River: (contd.)-Sylvania:		
No record (Sylvania sand 630)	220 (620+)	790
TOTAL DEPTH		790

Well deepened in 1936

Township 2S - Range 11E

GEOLOGICAL SURVEY SAMPLE No.

MAY 29 1973

WATER WELL RECORD
ACT 294 PA 1965

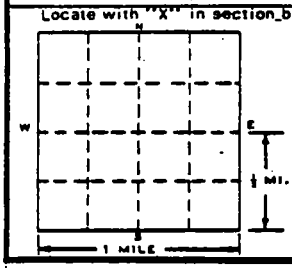
MICHIGAN DEPARTMENT OF PUBLIC HEALTH

1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	[illegible]	¼ [illegible] ¼ ¼	[illegible]	T 2 N/S.	[illegible] E/W.

Distance And Direction from Road Intersections
Dr. & 900' west of Greenfield and 1/2 Mile S. of Rotunda Drvie in Melvindale
Street address & City of Well Location

Locate with "X" in section below — Sketch Map:



3 OWNER OF WELL: Ford Motor Land Development Co.
Address: 16099 Rotunda Dr.
Dearborn, Michigan 48120
Att. Mr. William Roycroft

4 WELL DEPTH: (completed) 125 ft. Date of Completion 4-25-73

5 [X] Cable tool [ ] Rotary [ ] Driven [ ] Dug [ ] Hollow rod [ ] Jetted [ ] Bored [ ] ____

6 USE: [ ] Domestic [ ] Public Supply [ ] Industry [ ] Irrigation [ ] Air Conditioning [ ] Commercial [ ] Test Well [ ] Apts.

7 CASING: Threaded [X] Welded [ ] Height: Above/Below Surface ____ ft.
Diam. ____ in. to ____ ft. Depth — Weight ____ lbs./ft.
____ in. to ____ ft. Depth — Drive Shoe? Yes [ ] No [ ]

8 SCREEN:
Type: ____ Dia.: ____
Slot/Gauze ____ Length ____
Set between ____ ft. and ____ ft.
Fittings:

9 STATIC WATER LEVEL ____ ft. below land surface

10 PUMPING LEVEL below land surface
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.

11 WATER QUALITY in Parts Per Million:
Iron (Fe) ____ Chlorides (Cl) ____
Hardness ____ Other ____

12 WELL HEAD COMPLETION: [ ] In Approved Pit [ ] Pitless Adapter [ ] 12" Above Grade

13 Well Grouted? [ ] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [ ] ____
Depth: From ____ ft. to ____ ft.

14 Nearest Source of possible contamination
____ feet ____ Direction ____ Type
Well disinfected upon completion [ ] Yes [ ] No

15 PUMP: [ ] Not installed
Manufacturer's Name ____
Model Number ____ HP ____ Volts ____
Length of Drop Pipe ____ ft. capacity ____ G.P.M.
Type: [ ] Submersible [ ] Jet [ ] Reciprocating

2 FORMATION

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Fill	12'	12'
Sandy Clay Brown	19'	31'
[illegible]n Clay Soft	24	55'
Hardpan	2'	57'
Clay Soft Some Sand	43'	100'
Clay Soft	13'	113'
Hardpan	2'	115'
Sand W/B	1'	116'
Shale	9'	125'
Limesonte		125'

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.
FAIRLANE EAST APTS.
Hole Plugged and Cemented
DRY HOLE

ADDED INFO. BY DRILLER, ITEM No.
*CORRECTED BY
**ADDITION BY

17 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
O. O. Corsaut, Inc. — REGISTERED BUSINESS NAME
0025 — REGISTRATION NO.
Address 15101 W. 11 Mile Road, Oak Park 48237
Signed ____ AUTHORIZED REPRESENTATIVE
Date May 22, 1973

D67d 100M (Rev. 12-68)

GEOLOGICAL SURVEY COPY

28-2S-11E
City of Dearborn (Wayne Co.)

TD 563 in Sylvania Industrial Waste Disposal

Ford Motor Company

Ford Motor Co. Disposal No. 1

Permit No. BD 105

Drilling Contractor: Fen-Par Exploration Co. (Rotary)

Location: SE¼ NW¼ NW¼ section 28, T. 2S., R. 11E.
900' from North and 1100' from West line of quarter section

Elevation: Approximately 580 feet above sea level (rig fl.)

Record by: B. L. Champion from driller's log

	Thickness (feet)	Depth (feet)
PLEISTOCENE:		
Drift:		
Drift, clay	30	30
Clay and rocks	55	85
	(85)	
DEVONIAN:		
Dundee-Detroit River:		
Lime	41	126
Lime, dolomite, cherty	28	154
Lime, cherty	42	196
Lime	11	207
Lime, dolomite, hard	18	225
Lime, dolomite, gypsum	10	235
Lime, dolomite, brown	247	482
	(397)	
Sylvania:		
Sand, white	7	489
Sand, "Sylvania"	69	558
Lime, gray, sandy	2	560
No record	3	563
	(81+)	
TOTAL DEPTH		563

Casing Record:
7" 483' (95 cement)

Commenced: 2-20-56
Completed: 3-1-56
Initial Production: Industrial Waste Disposal

5-29-59

The Detroit Edison Company

Location: Mouth of Connor's Creek at the foot of Lycaste Street.

Well completed: March 20, 1913, by E. S. Beal, well contractor, Lansing, Mich.

Record furnished by E. S. Beal.

Elevation: about 578 feet

	Thickness (feet)	Depth (feet)
Pleistocene or glacial drift		
Blue clay	3	3
Blue clay or sand bar	3	6
Blue clay	5-6"	11-6"
Boulder clay or till	7	18-6"
Blue clay, soft	35-6"	54
Blue clay, very soft	48	102
Blue clay, pebbles, hard	7	109
Blue clay, cobblestone	13	122
Traverse:		
Marl or shale	2-4"	124-4"
Limestone, shaly	5-4"	129-8"

Industrial (45)
TD 548 in Sylvania (38)
Brine Disposal

29-2S-11E
Dearborn Twp. (Wayne Co.)

Marathon Oil Company

Ford Motor Co. WSW #4 — Permit No. B.D - 143

Drilling Contractor: North American Drilling Co. (Rotary 0-548)

Location: P.C. 33 SW¼ NW¼ Section 29, T. 2S, R. 11E
880' ± southeasterly on Schaefer Rd. from center of intersection of road 11 thence - 156' ± southwesterly from center of Schaefer Rd.

Elevation: 594.5 feet above sea level (rot. bush.)

Record by: H. Laaksonen from driller's log & core description submitted by the company

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
Drift:		
Clay & silt	92	92
"Drift"	20	112
	(112)	
DEVONIAN:		
Dundee-Detroit River: (Pre Report Dundee @ 112 Sj)		
Lime	22	134
Lime & dolomite (Pre Report Detroit @ 168 Sj (?))(Water @ 198)	94	228
Lime (Pre Report Crevice 198-199, water flow at depth of 230 believed to be from crevice. Specific gravity similar to fresh water; but contains lots of H_2S)	108	336
Lime, anhydrite, dolomitic	66	402
Lime, sandy	46	448
Core #1 448.0-548.0 (Recovered 100')		
Dolomite, gray, fossiliferous, lower contact not present	6.4'	454.4
Sylvania: (Core #1 Continued)	(342.4)	
Sandstone, white, medium-fine grained, friable, moderate-high angle cross-stratification, filled vertical fractures (Pre Report Sylvania @ 456 Sj)	2.6'	457.0
Lost core	10.0'	467.0
Sandstone, white, medium-finely grained, massive-high angle cross-stratification, fractured, minor shale pebbles, burrowed	17.0'	484.0
Lost core	8.0'	492.0
Sandstone, white, medium-fine grained, massive-high angle cross-stratification, fractured, lower contact sharp	29.0'	521.0
Dolomite, gray, minor vertical fractures, numerous irregular nodules of chert	27.0'	548.0
	(93.6+)	
	TOTAL DEPTH	548

Casing record:
24" 5 (10 cem.)
13-3/8" 71.5 (140 cem.)
9-5/8" 460 (300 cem.)

Commenced: 3-7-67
Completed: 3-16-67
Well Completed: 4-26-67
Initial Production: Brine Disposal

3-20-69
kcb

(R)

2S-11E
Detroit Twp., (Wayne Co.)

TD 1625 in Bass Island

Solvay Process Co. Well No. 16

Location: SE¼ T 2S, R 11E. City of Detroit, near the Solvay Co. plant

Elevation: About 575 feet above sea level

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
Alluvium (clay, sand, etc.)	87	87
DEVONIAN:		
Dundee-Detroit River:		
Limestone (slight flow of sulfur water)	38	125
(No distinction was made in this record between limestone & dolomite)		
Limestone (increased flow of sulfur water)	100	225
Limestone (large flow of sulfur water)	100	325
Limestone	105	430
	(343)	
Sylvania:		
Sandstone	60	490
Limestone, hard	35	525
Sandstone	15	540
	(110)	
SILURIAN:		
Bass Island-Salina:		
Limestone, very hard	20	560
Limestone	330	890
Salt	43	933
Limestone	6	939
Salt	12	951
Limestone	19	970
Salt	28	998
Limestone	7	1005
Salt	25	1030
Limestone	35	1065
Salt	35	1100
Limestone	20	1120
Salt	30	1150
Limestone	95	1245
Salt	12	1257
Limestone	5	1262
Salt	5	1267
Limestone	138	1405
Salt	203	1608
Limestone	4	1612
Salt	6	1618
Salt (bottom of well)	7	1625
	(1085½)	
TOTAL DEPTH		1625

23-11E (C) TD 1656 in Saline
Detroit Twp., (Wayne County) (Water well)

Detroit Edison Power & Light Company No. 1 Well

Location: SW¼ T.2S.,R.11E. At plant about Fort Wayne, city of Detroit. 5 blocks south of old Ft. Wayne, suburb of Delray, Detroit.

Elevation: 585 feet above sea level.

Record by: A. C. Lane from samples.	Thickness (feet)	Depth (feet)
PLEISTOCENE:		
Drift:		
No record	25	25
Clay, blue calcareous	65	90
DEVONIAN:		
Dundee:		
No record	7	97
Limestone	203?	300?
Detroit River:		
Dolomite	150	450
Sylvania:		
Sandstone; dolomitic pyrite	50	500
Sandstone, white	125	625
SILURIAN:		
Bass Island:		
Dolomite, brown	75	700
Dolomite, blue; selenite	25	725
Dolomite, brown	50	775
Dolomite, light; anhydrite	125	900
Anhydrite, mainly; some dolomite	50	950
Dolomite, some anhydrite	50	1000
Salina:		
Salt, (brown at 1010 feet)	35	1035
Limestone	5	1040
Salt (brown at 1040 feet)	30	1070
Limestone; some anhydrite (dolomite at 1080')	22	1092
Salt	25	1117
Limestone (some dolomite and anhydrite)	5	1122
Salt	38	1160
Dolomite: anhydrite and salt	120	1280
Salt	12	1292
Dolomite; anhydrite		
Argillaceous limestone; "Shale"	73	1365
Limestone; anhydrite	80	1445
Salt; brown at 1500 feet	191	1636
Limestone and anhydrite	20	1656
TOTAL DEPTH		1656

[illegible] Sylvania
PC 33 Portion and City of Lexington, (Wayne Co.) Brine Disposal Well

Aurora Gasoline Company

Ford Motor Co. (Aurora Gasoline Co) WSW No. 1 Permit No. BD-136

Drilling Contractor: Union Rotary Corp. (Rotary)

Location: SW¼ NE¼ NW¼ section 29, T. 2S., R. 11E.
1130' from North and 1295' from East line of quarter section

Elevation: 599? feet above sea level (rot. bush.)

Record by: B. L. Champion from driller's log

	Thickness (feet)	Depth (feet)
PLEISTOCENE:		
Drift:		
Drift	115	115
DEVONIAN:		
Dundee:		
Lime, "Dundee"	95	190
Detroit River (?):		
Lime, brown	110	300
Lime, anhydrite	110	410
Lime, broken	32	442
Lime, brown	28 (28+)	470
Sylvania: (Pre. Report-top Sylvania at 500)		
Sand, gray	60 (60+)	530
TOTAL DEPTH		530

Casing Record:
9 5/8" 497' (300 cement) ; Commenced: 12-20-59
Completed: 12-29-59
Initial Production: Dry Hole-Brine Disposal Well

5-17-61

Detroit (Wayne County)

Zug Island Well

Location: SE¼ T.2 S., R.11 E. Detroit, near Solvay Company plant.

Elevation: About 575 feet above sea level. Near mouth of River Rouge.

	Thickness (Feet)	Depth (Feet)
Pleistocene:		
Clays and surface earth	73	73
Devonian:		
Dundee and Detroit River Formations (Undivided):		
Dolomite?	52	125
Shale	35	160
Dolomite?	160	320
Sylvania Formation:		
Sandstone, 94 per cent SiO	22	342
Sandy lime	88	430
Silurian:		
Bass Island Formation:		
Soapstone (calcareous shale?)	125	555
Brown lime	30	585
Gray lime	55	640
Lime	135	775
Limestone	25	800
Salina Formation:		
Salt	40	840
Mixed lime	32	872
Salt	56	928
Lime	27	955
Salt	20	975
Lime	10	985
Salt	55	1040
Lime	88	1128
Salt	16	1144
Lime	6	1150
Salt	15	1165
Lime	25	1190
Shales	17	1207
Slate	83	1290
Salt	238	1528

LPG Storage
TD 1250 in Salina

29-2S-11E
City of Detroit (Wayne Co.)

Aurora Gasoline Company

Ford Motor Co. (Aurora Gasoline Co.) LPG No. 1 — Permit No. 20696

Drilling Contractor: Union Rotary Corporation (Rotary)

Location: SW¼ SE¼ NW¼ section 29, T. 2S., R. 11E.
550' from South and 800' from East line of quarter section

Elevation: 586 feet above sea level (grd. elev.)

Record by: B. L. Champion from sample log and core descriptions submitted by the company

	Thickness (feet)	Depth (feet)
PLEISTOCENE:		
Drift:		
Clay, gray	25	25
Clay, gray with pink cast	20	45
Clay, gray, sandy and pebbles	55	100
	(100)	
DEVONIAN:		
Dundee-Detroit River:		
Dolomite, buff to gray, fine to medium crystalline, slightly fossiliferous (Pre. Report-show of dead oil)	30	130
Limestone, white to buff, finely crystalline, fossiliferous	20	150
Dolomite, buff to light gray, finely crystalline with some anhydrite	60	210
Dolomite, buff, oolitic, medium crystalline	10	220
Dolomite, buff to gray, finely crystalline, abundant anhydrite (flow of black sulfur water 247-250)	40	260
Dolomite, gray, finely crystalline, some anhydrite	10	270
Anhydrite, gray and brown with some dolomite	10	280
Dolomite, gray and buff, finely crystalline anhydritic	40	320
Dolomite, light gray to buff, very finely crystalline, dense	20	340
Dolomite, gray to dark gray mottled	20	360
Dolomite, buff to brown, finely crystalline, anhydritic	40	400
Dolomite, brown, medium to coarsely crystalline	10	410
Dolomite, brown to buff, finely crystalline to granular	49	459
	(359)	
Sylvania:		
Dolomite; sandstone, white, medium to coarse, dolomitic	11	470
Dolomite, gray-brown, sandy, finely to medium grained	10	480
Dolomite, brown and gray; sandstone, gray to white, fine to coarse	31	511
Sandstone, clear, medium to coarse grained	9	520
Dolomite, gray, fine grained, slightly sandy	10	530
Dolomite, gray, very sandy, medium grained	48	578
	(119)	
DEVONIAN-SILURIAN:		
Bois Blanc-Bass Island:		
Dolomite, gray, finely crystalline, sandy, very cherty	22	600
Dolomite, gray, very finely crystalline, dense	10	610
Dolomite, gray and brown, finely crystalline	16	626
Dolomite, brown to buff, finely crystalline to granular, slightly anhydritic	74	700
Dolomite, brown and gray, finely crystalline, abundant gray anhydrite	27	727

Liquid Petroleum Gas Storage
TD 1250 in Salina

29-2S-11E
City of Detroit (Wayne Co.)

Aurora Gasoline Co.

Ford Motor Co. (Aurora Gasoline Co) No. LPG 2 — Permit No. 20697

Drilling Contractor: Union Rotary Corp. (Rotary)

Location: NW¼ SE¼ NW¼ section 29, T. 2S., R. 11E.
850' from South and 950' from East line of quarter section

Elevation: 586.5 feet above sea level (gr. elev.)

Record by: B. L. Champion from sample log submitted by the company and Schlumberger tops (Schj.)

	Thickness (feet)	Depth (feet)
PLEISTOCENE:		
Drift:		
Clay, gray and yellow, slightly sandy	20	20
Clay, gray, sandy with traces of gravel	73	93
	(93)	
DEVONIAN:		
Dundee:		
Dolomite, buff, fine to coarsely crystalline, fossiliferous	16	109
Limestone, white to buff, finely crystalline, slightly argillaceous	16	125
Dolomite, buff, finely to very coarsely crystalline, fossiliferous	25	150
Dolomite, buff to white, medium crystalline, slightly porous	20	170
Dolomite, white, medium to granular	10	180
Dolomite, buff to white, finely to coarsely crystalline, fossiliferous	10	190
Sandstone, white, fine grained, friable to cemented	20	210
	(117)	
Detroit River:		
Dolomite, white, finely crystalline to granular	10	220
Dolomite, buff, coarsely crystalline and fossiliferous	4	224
Dolomite, white to buff, finely crystalline, dense	56	280
Dolomite, buff, finely crystalline and granular; some anhydrite	20	300
Dolomite, white to buff, finely crystalline, scattered coarse sand grains	24	324
Dolomite, buff, finely crystalline to granular, trace anhydrite	21	345
Dolomite, buff, green and pink cast, finely crystalline to granular	35	380
Dolomite, buff, finely crystalline, abundant brown anhydrite	20	400
Dolomite, brown and buff mottled, finely crystalline to granular, slightly anhydritic	24	424
Dolomite, buff, pink cast, fine to granular, slightly anhydritic	41	465
	(255)	
Sylvania:		
Sandstone, clear, fine to medium grained, loose	40	505
As above, to coarse, slightly argillaceous	20	525
Sandstone, dolomitic, gray to pink cast, fine to medium grained	10	535
Dolomite, gray and pink, finely crystalline, slightly sandy abundant chert	26	561

29-2S-11E TD 1256 in Salina
P.C. 33, Fordson & City of Detroit, (Wayne Co.) LPG Storage

Aurora Gasoline Company

Ford Motor Co. (Aurora Gas Co.) L.P.G No. 4 Permit No. 21954

Drilling Contractor: Union Rotary Corp. (Rotary)

Location: SW¼ NE¼ NW¼ Section 29, T. 2S., R. 11E.
1157' from North and 1295' from East line of quarter section

Elevation: 599 feet above sea level (rot. bush.)

Record by: J. R. Bolt from driller's log

	Thickness (feet)	Depth (feet)
PLEISTOCENE:		
Drift:		
Drift	114	114
DEVONIAN:		
Dundee-Detroit River:		
Lime	220	334
DEVONIAN-SILURIAN:		
Sylvania-Bois Blanc-Bass Island-Salina:		
Sand, lime	101	435
Lime	40	475
Sand, white	105	580
Lime	12	592
Sand	11	603
Lime	11	614
Lime, anhydrite	11	625
Lime, shale	10	635
Lime, anhydrite	35	670
Lime	15	685
Lime, anhydrite	94	779
Shale	7	786
Lime, anhydrite	12	798
Shale, lime	12	810
Lime, anhydrite	20	830
Lime	75	845
Lime, anhydrite	98	943
Salt, broken	43	986
Lime, broken	3	989
Salt	49	1038
Lime anhydrite	28	1066
Salt	26	1092
Lime, anhydrite	16	1108
Salt, broken	32	1140
Anhydrite	16	1156
Lime, anhydrite	9	1165
Salt	4	1169

(C)

35-2S-11E
Detroit Twp., (Wayne Co.)
(Zug)

Salt
TD 1620 in Salina

Solvay Process Co. Well No. 36

Location: C-S½ section 35, T 2S, R 11E

Elevation: Approx. 577 feet above sea level

Record by: O. F. Poindexter from samples

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
No samples	10	10
Gravel	10	20
Clay, brownish-gray	10	30
Clay, blue & gravel	50	80
DEVONIAN:		
Detroit River:		
Dolomite & limestone, gray & brown, cherty; also cavings	25	105
Dolomite, brown, limy	30	135
Dolomite, & limestone, light brown, cherty	10	145
Dolomite, brown, limy, cherty	10	155
No sample	10	165
Dolomite, brown, limy, cherty	10	175
Dolomite, light brown & gray, limy; drills coarse	20	195
Dolomite, light brown & gray, limy; drills finer	20	215
Dolomite & limestone, light gray & light brown	40	255
Limestone, light brown	20	275
Dolomite, brownish-buff & gray, limy	20	295
Limestone, light buff-gray to brownish-buff	10	305
Limestone, brownish-buff & dolomite, gray	10	315
Limestone, buff & buff-gray, dolomitic	10	325
Dolomite, brown, limy	40	365
Dolomite, brownish-buff, limy	10	375
Dolomite, light brown, limy	10	385
Dolomite, grayish to brownish-buff, limy	25	410
Sylvania:	(330)	
Sandstone, white; dolomite cavings	10	420
Sandstone, white	60	480
Limestone, gray, sandy	10	490
Dolomite, brownish-buff & light gray, cherty	10	500
Dolomite, brownish-buff, sandy	30	530
Dolomite, gray, sandy, very cherty	20	550
SILURIAN:	(140)	
Bass Island:		
Dolomite, brownish-buff & gray; little cherty cavings	10	560
Dolomite, brownish-buff	50	610
Dolomite, light brown	20	630
Dolomite, light brown & gray	30	660
Dolomite, brownish-buff & buff-gray, limy	10	670
Dolomite, grayish-brown, buff & gray	10	680
Dolomite, buff-gray, gray & grayish-brown	10	690
Dolomite, brownish-buff	10	700
Dolomite, buff & buff-gray	10	710
Dolomite, buff-gray, brownish-buff & gray	10	720

(C)

35-2S-11E
Detroit Twp., (Wayne Co.)
(Zug)

Salt
TD 1620 in Salina

Solvay Process Co. Well No. 36

Location: C-3½ section 35, T 2S, R 11E

Elevation: Approx. 577 feet above sea level

Record by: O. F. Poindexter from samples

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
No samples	10	10
Gravel	10	20
Clay, brownish-gray	10	30
Clay, blue & gravel	50	80
DEVONIAN:		
Detroit River:		
Dolomite & limestone, gray & brown, cherty; also cavings	25	105
Dolomite, brown, limy	30	135
Dolomite, & limestone, light brown, cherty	10	145
Dolomite, brown, limy, cherty	10	155
No sample	10	165
Dolomite, brown, limy, cherty	10	175
Dolomite, light brown & gray, limy; drills coarse	20	195
Dolomite, light brown & gray, limy; drills finer	20	215
Dolomite & limestone, light gray & light brown	40	255
Limestone, light brown	20	275
Dolomite, brownish-buff & gray, limy	20	295
Limestone, light buff-gray to brownish-buff	10	305
Limestone, brownish-buff & dolomite, gray	10	315
Limestone, buff & buff-gray, dolomitic	10	325
Dolomite, brown, limy	40	365
Dolomite, brownish-buff, limy	10	375
Dolomite, light brown, limy	10	385
Dolomite, grayish to brownish-buff, limy	25	410
Sylvania:	(330)	
Sandstone, white; dolomite cavings	10	420
Sandstone, white	60	480
Limestone, gray, sandy	10	490
Dolomite, brownish-buff & light gray, cherty	10	500
Dolomite, brownish-buff, sandy	30	530
Dolomite, gray, sandy, very cherty	20	550
SILURIAN:	(140)	
Bass Island:		
Dolomite, brownish-buff & gray; little cherty cavings	10	560
Dolomite, brownish-buff	50	610
Dolomite, light brown	20	630
Dolomite, light brown & gray	30	660
Dolomite, brownish-buff & buff-gray, limy	10	670
Dolomite, grayish-brown, buff & gray	10	680
Dolomite, buff-gray, gray & grayish-brown	10	690
Dolomite, brownish-buff	10	700
Dolomite, buff & buff-gray	10	710
Dolomite, buff-gray, brownish-buff & gray	10	720

2S-11E
City of Detroit (Wayne Co.)

Detroit Salt Mining & Manufacturing Company
Section of Oakwood Salt Shaft
Close to NW Corner NE¼ Section 33-2S-11E

Location: SW¼ of T.2S., R.11E. On Mich. Central R.R. One-half mile south of the River Rouge in Oakwood, a small suburb of Detroit.

Elevation: 580' above sea level.

Record by: W. H. Sherzer (R.A.S.)

	Thickness (feet)	Depth (feet)
PLEISTOCENE:		
Clay, blue, boulder	73	73
Sand just above rock, water	10	83
	(83)	
DEVONIAN:		
Dundee:		
Limestone, high grade, with some chert nodules Quite heavy flow from 86' to 88'; rank in hydrogren sulphide gas; small flow at 135'	63	146
Detroit River: (Lucas Member)		
Dolomite, bluish to brownish-gray, porous, much of it finely laminated with streaks of asphaltum. Small amount of gypsum; poor in fossils; flow from 155-168'; flow continuing down to 181'; sulphurous, temperature at 180' was 49.5°F. (Cooper). Remarkably heavy flow at 191' from a horizontal opening extending across the shaft; water strong in sulphur and under pressure of 90 lbs. per square inch, causing the shaft to fill in 3 to 4 hours.	170	316
Amherstsberg Member:		
Dolomite, brownish laminated	19	335
Anderdon Member:		
Limestone, high grade, rich in fossils; some celestite	38	373
Flat Rock Member:		
Dolomite, dark, drab with few casts and moulds of fossils; some concretions and gypsum	47	420
Sylvania:		
Sandstone, snow white, more or less cross bedded; generally incoherent compacted into sandstone from about 490'-510'	113	533

P.C. #33, Projected as 19-2S-11E
City of Dearborn (Wayne Co.)

Wildcat (00)
TD 3917 in Eau Claire (65)
Dry

Panhandle Eastern Pipeline Company

Ford Motor Company No. 1

Permit No. 25560

Drilling Contractor: Calvert Eastern Drilling Company (Rotary)

Location: P.C. #33, projected as Section 19, T. 2S, R. 11E
183' West of Shaffer Road & 111' SE of Detroit Industrial Expressway

Elevation: 588 feet above sea level (~~rotary bush.~~ ground)

Record by: William Mantek from samples; sample log; submitted by the company and some formation tops from Schlumberger Gamma Ray-Neutron Laterolog (Schj) and Samples (SA)

	Thickness (feet)	Depth (feet)	
PLEISTOCENE:			
Drift:			
"Drift"	113	113	
DEVONIAN:			
Dundee:			
Limestone	17	130	
Limestone, white to tan, crystalline	10	140	
Limestone, white to tan, crystalline; considerable white, rounded Sand (cavings?)	40	180	
Limestone, white to light brown, finely crystalline; Sand as above	10	190	
Limestone, tan, finely crystalline; little Sand, as above	5	195	Schj
	(82)		
Detroit River:			
Dolomite, tan to light brown, very finely crystalline to dense, limy, slight dead oil stain	15	210	
No Sample	10	220	
Dolomite, as above	10	230	
Dolomite, tan, very finely crystalline to dense, limy; trace of Anhydrite, white	30	260	
Dolomite, tan, dense, slightly limy	10	270	
Dolomite, tan to light brown, very finely crystalline to dense; little Anhydrite, white	20	290	
Dolomite, tan to buff, dense, anhydritic	20	310	
Dolomite, tan to buff, dense, with occasional solution porosity, anhydritic	40	350	
Dolomite, tan, very finely crystalline, slightly porous; little Anhydrite, white	20	370	
Dolomite, tan, very finely crystalline, slightly porous, with thin black carbonaceous partings	50	420	
Dolomite, brown to dark brown, very finely crystalline	20	440	
Dolomite, brown, very finely crystalline; Dolomite, tan, dense, to very finely crystalline	40	480	Schj
	(285)		
Sylvania:			
Dolomite, as above; trace Sandstone, white, fine	10	490	
Dolomite, tan to brown, very finely crystalline, slightly sandy	30	520	
Sandstone, white, fine, subrounded; some Dolomite, brown, very finely crystalline	10	530	

Township 2S - Range 10E

GEOLOGICAL SURVEY SAMPLE No. [illegible]

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	Dearborn Heights	¼ ¼ ¼	6	2 N/S.	10 E/W.

Distance And Direction from Road Intersections: Carriage Park Apts. SE Corner Of Inkster and Joy Rds.

Street Address or Building Location: 8514 Inkster Dearborn Heights, Mich. Bldg. #2

Locate with "X" in section below — Sketch Map: Well # 5

3 OWNER OF WELL:

Address: Carriage Hill Apt. Co. 2900 West Maple Troy, Mi 48084

4 WELL DEPTH: (completed)

378 ft. Date of Completion: April 2, 82

5

☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☐ Bored ☐ ____

6 USE:

☐ Domestic ☐ Public Supply ☐ Industry ☐ Irrigation ☒ Air Conditioning ☐ Commercial ☐ Test Well ☐ ____

7 CASING:

Threaded ☒ Welded ☐ Diam. 6 in. to 107 ft. Depth; ____ in. to ____ ft. Depth

Height: Above/Below Surface 6 ft. Weight ____ lbs./ft. Drive Shoe? Yes ☒ No ☐

2 FORMATION

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Top Soil	½'	½'
Brown Clay	14½	15
Gray Clay	30	45
Gray Clay & Gravel	31	76
Gray Clay & Cobbles w/Occ. Boulder	23	99
Brown Limestone	2	101
Boulders & Cobblestone	3	104
Hard Gray Shale	13	117
Greyish Black Shale	3	120
Gray Shale	9	129
BRown Shale	2	131
Soft Med Gray Shale	2	133
Lime Stone	87	220
Gray Shale	50	270
Lime Stone	45	315
Sandstone	60	375
Black Shale	3	378

USE ADD SHEET IF NEEDED

8 SCREEN:

Rock

Type: ____ Dia.: ____ Slot/Gauze ____ Length ____ Set between ____ ft. and ____ ft. Fittings:

9 STATIC WATER LEVEL

____ ft. below land surface

10 PUMPING LEVEL below land surface

____ ft. after ____ hrs. pumping ____ g.p.m.

____ ft. after ____ hrs. pumping ____ g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) ____ Chlorides (Cl) ____ Hardness ____ Other ____

12 WELL HEAD COMPLETION:

☐ In Approved Pit ☐ Pitless Adapter ☐ 12" Above Grade

13 Well Grouted?

☒ Yes ☐ No ☐ Neat Cement ☐ Bentonite ☐ ____ Depth: From ____ ft. to ____ ft.

14 Nearest Source of possible contamination

____ feet ____ Direction ____ Type

Well disinfected upon completion ☐ Yes ☐ No

15 PUMP:

☐ Not installed

Manufacturer's Name ____ Model Number ____ HP ____ Volts ____ Length of Drop Pipe ____ ft. capacity ____ G.P.M.

Type: ☒ Submersible ☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

DRY HOLE = WON"T MAKE OR TAKE WATER

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Brown Drilling Co. Inc. (REGISTERED BUSINESS NAME) 0026 (REGISTRATION NO.)

Address: Howell, Mi 48842

Signed: Henry R. Brown (AUTHORIZED REPRESENTATIVE) Date ____

D67d 100M (Rev. 12-68)

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GEOLOGICAL SURVEY SAMPLE No.

WATER WELL RECORD
ACT 294 PA 1965

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	Dearborn Heights	¼ ¼ ¼	6	2 N/S.	10 E/W

Distance And Direction from Road Intersections: Carriage Park Apts. 8514 Inkster Rd. Dearborn Heights — SE Corner of Inkster and Joy Rd.

Street address & City of Well Location

Locate with "X" in section below — Sketch Map: Well #7

3 OWNER OF WELL: Carriage Hill Apt. Co.
Address: 2900 West Maple, Troy, MI 48084

4 WELL DEPTH: (completed) 81 ft. Date of Completion: May 15, 82

5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☐ Bored ☐

6 USE: ☐ Domestic ☐ Public Supply ☐ Industry ☐ Irrigation ☒ Air Conditioning ☐ Commercial ☐ Test Well ☐

7 CASING: Threaded ☒ Welded ☐ Diam. 5 in. to 69 ft. Depth; ___ in. to ___ ft. Depth
Height: Above/Below Surface ___ ft. Weight ___ lbs./ft. Drive Shoe? Yes ☒ No ☐

2 FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Top Soil	3	3
Black Clay	5	8
Gray Clay	4	12
Gray clay gravel	3	15
Gray Clay	45	50
Gray Clay & Gravel	26	76
Sand & Gravel	5	81

USE A 2ND SHEET IF NEEDED

8 SCREEN: Johnson
Type: s/s w/w Dia.: 5"
Slot/~~Gauge~~ 50 Length 5'
Set between ___ ft. and ___ ft.
Fittings:

9 STATIC WATER LEVEL 9 ft. below land surface

10 PUMPING LEVEL below land surface
___ ft. after ___ hrs. pumping ___ g.p.m.
___ ft. after ___ hrs. pumping ___ g.p.m.

11 WATER QUALITY in Parts Per Million:
Iron (Fe) ___ Chlorides (Cl) ___
Hardness ___ Other ___

12 WELL HEAD COMPLETION: ☐ In Approved Pit ☐ Pitless Adapter ☐ 12" Above Grade

13 Well Grouted? ☒ Yes ☐ No ☐ Neat Cement ☐ Bentonite ☐ ___
Depth: From ___ ft. to ___ ft.

14 Nearest Source of possible contamination
___ feet ___ Direction ___ Type
Well disinfected upon completion ☐ Yes ☐ No

15 PUMP: ☐ Not installed
Manufacturer's Name ___
Model Number ___ HP ___ Volts ___
Length of Drop Pipe ___ ft. capacity ___ G.P.M.
Type: ☐ Submersible ☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.
DRY HOLE = WON'T PUMP WATER
ADDED INFO BY DRILLER, ITEM NIL
*CORRECTED BY
**ADDITION BY
ELEVATION
DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Brown Drilling Co. Inc. (REGISTERED BUSINESS NAME) -0026 (REGISTRATION NO.)
Address: Howell, MI 48843
Signed: Harry P. Brown (AUTHORIZED REPRESENTATIVE) Date ___

D67d 100M (Rev. 12-68)

GEOLOGICAL SURVEY COPY

GEOLOGICAL SURVEY SAMPLE No. AUG 16 1982

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	Dearborn Heights	¼ ¼ ¼	6	2 N/S.	10 E/W

Distance And Direction from Road Intersections: Carriage Park Apts. 8514 Inkster Rd. Dearborn Heights — SE Corner of Inkster and Joy Rd.

Locate with "X" in section below — Sketch Map: Well #6

3 OWNER OF WELL: Carriage Hill Apt. Co.
Address: 2900 West Maple, Troy, Mi 48084

4 WELL DEPTH: (completed) 156 ft. Date of Completion: May 4, 82

5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☐ Bored ☐

6 USE: ☐ Domestic ☐ Public Supply ☐ Industry ☐ Irrigation ☒ Air Conditioning ☐ Commercial ☐ Test Well ☐

7 CASING: Threaded ☒ Welded ☐ Height: Above/Below Surface ____ ft.
Diam. 5 in. to 105 ft. Depth; ____ in. to ____ ft. Depth
Weight ____ lbs./ft.
Drive Shoe? Yes ☐ No ☐

2 FORMATION

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Brown Clay	10	10
Gray Clay	36	46
Gray Clay & Fine Gravel	2	48
Gray Clay	9½	57½
Fine Gravel & Stone	2½	60
Gray Clay	15	75
Black & Brown Limestone Oily	5	80
White & Brown Limestone	15	95
Brown Limestone	2	97
Gray Limestone	8	105
Gray Limestone w/Shale Lenses	5	110
Gray Shale and Gray Limestone	6	116
Gray Brown Limestone	40	156

USE A 2ND SHEET IF NEEDED

8 SCREEN: Type: Rock Dia.: ____ Slot/Gauze ____ Length ____ Set between ____ ft. and ____ ft. Fittings:

9 STATIC WATER LEVEL 9 ft. below land surface

10 PUMPING LEVEL below land surface ____ ft. after ____ hrs. pumping ____ g.p.m. ____ ft. after ____ hrs. pumping ____ g.p.m.

11 WATER QUALITY in Parts Per Million: Iron (Fe) ____ Chlorides (Cl) ____ Hardness ____ Other ____

12 WELL HEAD COMPLETION: ☐ In Approved Pit ☐ Pitless Adapter ☐ 12" Above Grade

13 Well Grouted? ☒ Yes ☐ No ☐ Neat Cement ☐ Bentonite ☐ ____ Depth: From ____ ft. to ____ ft.

14 Nearest Source of possible contamination ____ feet ____ Direction ____ Type ____ Well disinfected upon completion ☐ Yes ☐ No

15 PUMP: ☐ Not installed
Manufacturer's Name ____ Model Number ____ HP ____ Volts ____ Length of Drop Pipe ____ ft. capacity ____ G.P.M.
Type: ☐ Submersible ☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

DRY HOLE - WON'T PUMP WATER
ADDED INFO BY DRILLER, H&M NO.
*CORRECTED BY
**ADDITION BY
ELEVATION
DEPTH TO ROCK

17 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

Brown Drilling Co. Inc. — REGISTERED BUSINESS NAME; 0026 — REGISTRATION NO.

Address: Howell, Mi 48843

Signed: [signature] — AUTHORIZED REPRESENTATIVE; Date ____

D67d 100M (Rev. 12-68)

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GEOLOGICAL SURVEY SAMPLE No.

AUG 16 1982

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	Dearborn Heights	¼ ¼ ¼	6	2 N/S.	10 E/W

Distance And Direction from Road Intersections: Carriage Park Apts. 8514 Inkster Rd. Dearborn Heights — Se Corner of Inkster and Joy Rd.

Street Location

Locate with "X" in section below — Sketch Map: Well #8

3 OWNER OF WELL: Carriage Hill Apt. Co.
Address: 2900 West Maple, Troy, MI 48084

4 WELL DEPTH: (completed) 159 ft. Date of Completion: May 27, 82

5 ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☐ Bored ☐

6 USE: ☐ Domestic ☐ Public Supply ☐ Industry ☐ Irrigation ☒ Air Conditioning ☐ Commercial ☐ Test Well ☐

7 CASING: Threaded ☒ Welded ☐ Height: Above/Below Surface ____ ft.
Diam. 5 in. to 99 ft. Depth — Weight ____ lbs./ft.
____ in. to ____ ft. Depth — Drive Shoe? Yes ☒ No ☐

8 SCREEN: Rock Well
Type: ____ Dia.: ____
Slot/Gauze ____ Length ____
Set between ____ ft. and ____ ft.
Fittings:

9 STATIC WATER LEVEL 9 ft. below land surface

10 PUMPING LEVEL below land surface
20 ft. after ½ hrs. pumping 10 g.p.m. w/Air
159 ft. after 1½ hrs. pumping 75 g.p.m. w/Air

11 WATER QUALITY in Parts Per Million:
Iron (Fe) ____ Chlorides (Cl) ____
Hardness ____ Other ____

12 WELL HEAD COMPLETION: ☐ In Approved Pit ☐ Pitless Adapter ☐ 12" Above Grade

13 Well Grouted? ☐ Yes ☐ No ☐ Neat Cement ☐ Bentonite ☐ ____
Depth: From ____ ft. to ____ ft.

14 Nearest Source of possible contamination
____ feet ____ Direction ____ Type
Well disinfected upon completion ☐ Yes ☐ No

15 PUMP: ☐ Not installed
Manufacturer's Name ____
Model Number ____ HP ____ Volts ____
Length of Drop Pipe ____ ft. capacity ____ G.P.M.
Type: ☐ Submersible ☐ Jet ☐ Reciprocating

2

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Black Top soil	2	2
Brown Clay	7	9
Gray Clay	61	70
Gray Clay and Bolders	27	97
Limestone Brown	23	120
Gray Shale	6	126
Brown Limestone	14	140
Blue Shale	19	159
ADDED INFO BY DRILLER, ITEM NO.		
*CORRECTED BY		
**ADDITION BY		
ELEVATION		
DEPTH TO ROCK		

USE A 2ND SHEET IF NEEDED

16 Remarks, elevation, source of data, etc.

This Well pumps ~~heavy gas~~

17 WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

~~Brown Drilling Co. Inc.~~ REGISTERED BUSINESS NAME — 0026 REGISTRATION NO.

Address ~~Howell, MI 48843~~

Signed [signature] AUTHORIZED REPRESENTATIVE — Date ____

D67d 100M (Rev. 12-68)

GEOLOGICAL SURVEY COPY

GEOLOGICAL SURVEY 80 JAN 29 1981

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

PERMIT NUMBER

1. LOCATION OF WELL

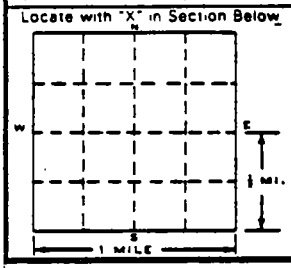
County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	Dearborn Heights	¼ ¼ ¼	6	2 N/S	10 E/W

Distance And Direction From Road Intersection

700' S.E. of Inkster & Joy Road
Carriage Park Apartments
3640 Canfield, Dearborn Heights 48127

Street Address & City of Well Location

Locate with "X" in Section Below — Sketch Map:



3. OWNER OF WELL:

Address: Carriage Hill Apartments Co.
2900 W. Maple Road
Troy, Michigan 48084

Address Same As Well Location? ☐ Yes ☒ No

4. WELL DEPTH (completed) 403 ft. — Date of Completion 12/28/81

5. ☐ Cable tool ☒ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐

6. USE: ☐ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☒ Test Well ☐ Type IIb Public ☐

7. CASING: Diameter ☒ Steel ☒ Threaded ☐ Plastic ☐ Welded

4 in. to 92 ft. depth
in. to ft. depth

Grouted Drill Hole Diameter
6 3/4 in. to 92 ft. depth
in. to ft. depth

Height Above/Below Surface 1 ft
Weight 11 lbs./ft
Drive Shoe ☒ Yes ☐ No

8. SCREEN ☐ Not Installed

Type ____ Diameter ____
Slot/Gauze ____ Length ____
Set between ____ ft. and ____ ft
FITTINGS ☐ K-Packer ☐ Lead Packer ☐ Bremer Check
☐ Blank above screen ____ ft. Other ____

9. STATIC WATER LEVEL
4 ft below land surface ☐ Flow

10. PUMPING LEVEL below land surface
120 ft. after 4 hrs pumping at 60 G.P.M
____ ft after ____ hrs pumping at ____ G.P.M

11. WELL HEAD COMPLETION ☐ Pitless adapter ☒ 12" above grade ☐ Basement offset ☐ Approved pit

12. WELL GROUTED? ☐ No ☒ Yes From 0 to 92 ft
☐ Neat cement ☒ Bentonite ☐ Other ____
No. of bags of cement ____ Additives ____

13. Nearest source of possible contamination
Type Storm Drain Distance 50 ft. Direction east
Well disinfected upon completion? ☐ Yes ☒ No

14. PUMP ☒ Not Installed ☐ Pump Installation Only
Manufacturer's name ____
Model number ____ HP ____ Volts ____
Length of Drop Pipe ____ ft. capacity ____ G.P.M
TYPE: ☐ Submersible ☐ Jet ____
PRESSURE TANK
Manufacturer's name ____
Model number ____ Capacity ____ Gallons

2. FORMATION DESCRIPTION

FORMATION DESCRIPTION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Fill sand and gravel	10'	10
Clay (gray)	40'	50
Heavy gravel with clay	2'	52
Sharp, firm medium gravel	11'	63
Medium and fine waterground	5'	68
Gray clay with some gravel	7'	75
Layered sharp gravel and watersand	15'	90
Limestone	47'	137
Sahle and limestone(mixed)	58'	195
Sandstone and gray shale	125'	320
Sandstone	61'	381
Gray Shale	3'	384
Salt	19'	403

ASSIGNED WELL NO. BY DRILLER, ITEM NO.
ENTERED BY
LOCATION BY
ELEVATION
USE A SEPARATE SHEET IF NEEDED
DEPTH TO ROCK

15. Remarks, elevation, source of data, etc.

2" opening in bedrock at 97'
oil at 114'
381' - 403' Blackwater, brinetaste
sulphur smell

16. WATER WELL CONTRACTOR'S CERTIFICATION:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief

M. Sullivan Well Drilling — 63-1790
REGISTERED BUSINESS NAME — REGISTRATION NO.

Address 9375 Big Lake Road, Clarkston, Michigan

Signed ____ AUTHORIZED REPRESENTATIVE Date 1/4/82

D67c (Rev. 10-80)

GEOLOGICAL SURVEY COPY

3

GEOLOGICAL SURVEY NO

DEC 14 1981

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

DEC - 3 1981

PERMIT NUMBER

1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	Dearborn Heights	¼ ¼ ¼	6	2 N(S)	17 E/W

Distance And Direction From Road Intersection

400 Ft. S. E. of Inkster & Joy Roads
Carriage Park Apartments
8640 Canfield, Dearborn Heights, MI

Street Address & City of Well Location

Locate with "X" in Section Below — Sketch Map:

W, E, S, ½ MI., 1 MILE

3 OWNER OF WELL.

Carriage Park Apartments
Address 2900 W. Maple Road
Troy, MI 48084

Address Same As Well Location? ☐ Yes ☒ No

4 WELL DEPTH: (completed) 92 ft. **Date of Completion** 11/21/81

5 ☒ Cable tool ☐ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Auger ☐ Jetted ☐

6 USE: ☐ Domestic ☐ Type I Public ☐ Type III Public ☐ Irrigation ☐ Type IIa Public ☐ Heat pump ☒ Test Well ☐ Type IIb Public ☐

7 CASING Diameter ☐ Steel ☐ Threaded ☐ Plastic ☐ Welded

4 in. to 63 ft. depth

in. to ft. depth

Grouted Drill Hole Diameter

in. to ft. depth

in. to ft. depth

Height: Above/Below Surface 1 ft.

Weight 11 lbs /ft.

Drive Shoe ☒ Yes ☐ No

8 SCREEN: ☐ Not Installed

Type Johnson Stainless Diameter 4"

Slot/Gauze 25-25-25-35-35 Length 31'

Set between 65 ft. and 92 ft.

FITTINGS: ☒ K-Packer ☐ Lead Packer ☐ Bremer Check

☒ Blank above screen 2 ft. Other 68'-75' Blank

9 STATIC WATER LEVEL.

9 ft. below land surface ☐ Flow

10 PUMPING LEVEL below land surface

60 ft. after 8 hrs. pumping at 10 G.P.M

60 ft. after 10 hrs. pumping at 15 G.P.M

11 WELL HEAD COMPLETION: ☐ Pitless adapter ☒ 12" above grade ☐ Basement offset ☐ Approved pit

12 WELL GROUTED? ☒ No ☐ Yes From ____ to ____ ft

☐ Neat cement ☐ Bentonite ☐ Other ____

No. of bags of cement ____ Additives ____

13 Nearest source of possible contamination

Type Storm Drain Distance 75 ft. Direction S.W.S.

Well disinfected upon completion? ☒ Yes ☐ No

14 PUMP: ☒ Not Installed ☐ Pump Installation Only

Manufacturer's name ____

Model number ____ HP ____ Volts ____

Length of Drop Pipe ____ ft. capacity ____ G.P.M.

TYPE ☐ Submersible ☐ Jet ____

PRESSURE TANK

Manufacturer's name ____

Model number ____ Capacity ____ Gallons

2 FORMATION DESCRIPTION

Formation Description	Thickness of Stratum	Depth to Bottom of Stratum
Fill Sand Gravel	10'	10'
Clay (grey)	40'	50'
Heavy Gravel w/Clay	2'	52'
Sharp Medium Gravel	11'	63'
Medium & Fine Water Gravel	5'	68'
Clay w/Some Gravel	7'	75'
Streaks Sharp Gravel, Water Sand	17'	92'
Black Shale, Sandstone, Med. Gravel		
(Balder at 80' & 91')		
(Gas Encountered about 53' to about		
80')		

USE A 2ND SHEET IF NEEDED

15. Remarks elevation, source of data, etc.

Screen positions - 2' blank, 5' 25 slot, 7' blank, 2'-4' 25 slot, 2'-5' 35 slot (pump cavitates at 15 gpm.)

ADDED INFO. BY DRILLER, ITEM NO.

16. WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief

M. Sullivan Well Drilling — 63-1790
REGISTERED BUSINESS NAME — REGISTRATION NO.

Address 9375 Big Lake Road, Clarkston, MI 48016

Signed ____ AUTHORIZED REPRESENTATIVE Date 11/25/81

D67d (Rev. 10-80)

CORRECTED BY S

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GEOLOGICAL SURVEY NO

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

WATER WELL AND PUMP RECORD

PART 127 ACT 368, P.A. 1978

PERMIT NUMBER

1 LOCATION OF WELL

County	Township Name	Fraction	Section Number	Town Number	Range Number
Wayne	Dearborn Hgts	¼ ¼ ¼	8	2 N/S	10 E/W

Distance And Direction From Road Intersection

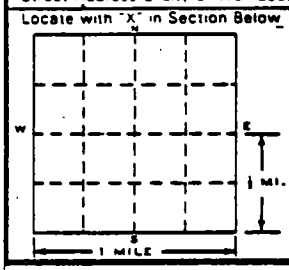
6829 Silvery Lane
W. of Telegraph
S. of Warren

sprinkling only

Street Address & City of Well Location

Locate with "X" in Section Below

Sketch Map:



3 OWNER OF WELL

Address: David Weyn, 6829 Silvery Lane, Dearborn Hgts, Michigan 48127

Address Same As Well Location? [X] Yes [ ] No

4 WELL DEPTH (completed) 57 ft. **Date of Completion** 6/15/83

5 [X] Cable tool [ ] Rotary [ ] Driven [ ] Dug [ ] Hollow rod [ ] Auger [ ] Jetted [ ]

6 USE [X] Domestic [ ] Type I Public [ ] Type III Public [X] Irrigation [ ] Type IIa Public [ ] Heat pump [ ] Test Well [ ] Type IIb Public [ ]

7 CASING Diameter [X] Steel [ ] Threaded [ ] Plastic [ ] Welded

4" in. to 55'2" ft. depth

in. to ft. depth

Grouted Drill Hole Diameter

in. to ft. depth

in. to ft. depth

Height: Above/~~Below~~ Surface 2'2" ft

Weight 11 lbs /ft

Drive Shoe [X] Yes [ ] No

2 FORMATION DESCRIPTION

	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
clay	52½'	52½'
sand	4½'	57'

USE A 2ND SHEET IF NEEDED

8 SCREEN Johnson [ ] Not Installed

Type stainless steel Diameter 4"

Slot/Gauze 12 Length 5'

Set between 53 ft. and 57 ft

FITTINGS [ ] K-Packer [ ] Lead Packer [ ] Bremer Check

[X] Blank above screen 18" ft Other

9 STATIC WATER LEVEL

21 ft below land surface [ ] Flow

10 PUMPING LEVEL below land surface

45 ft after 1 hrs. pumping at 15 G.P.M.

ft after hrs. pumping at G.P.M.

11 WELL HEAD COMPLETION [ ] Pitless adapter [X] 12" above grade [ ] Basement offset [ ] Approved pit

12 WELL GROUTED? [X] No [ ] Yes From to ft

[ ] Neat cement [ ] Bentonite [ ] Other

No. of bags of cement Additives

13 Nearest source of possible contamination

Type unknown Distance ft Direction

Well disinfected upon completion? [X] Yes [ ] No

14 PUMP [ ] Not installed [ ] Pump Installation Only

Manufacturer's name Red Jacket

Model number 100CN-CN7GC HP 1 Volts 230

Length of Drop Pipe 48 ft. capacity 15 G.P.M.

TYPE [X] Submersible [ ] Jet

PRESSURE TANK

Manufacturer's name none

Model number Capacity Gallons

15. Remarks, elevation, source of data, etc.

[illegible] ITEM NO.

[illegible] BY

16. WATER WELL CONTRACTOR'S CERTIFICATION

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief

O.O. Corsaut, Inc. — REGISTERED BUSINESS NAME

0025 — REGISTRATION NO.

Address 15101 W. 11 Mile Rd. Oak Park, MI 48237

Signed [signature] — AUTHORIZED REPRESENTATIVE

Date 7/28/83

D67d (Rev 10-80)

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Cons.7401 Rev.12/63

Page 1 of 1

Sample No.

MICHIGAN DEPARTMENT OF CONSERVATION
GEOLOGICAL SURVEY DIVISION
WATER WELL RECORD

Permit No.

Owner No.

County	Twp.		Sec.	Town	Range
Wayne	Dearborn	SE ¼ SE ¼ NW ¼	15	2S N/S.	10E E/W.

Distance from Roads, Section Lines, etc.
West edge, River Rouge Approx. 2200' South of Ford Rd.

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Yellow clay	21	21
Muddy sand	2	23
Gray Clay	13	36
Muddy sand, fine	33	69
Muddy sand	2	71

Owner: Santucci Construction

Address: Dearborn, Michigan

Driller and Address: R. Lynch, Layne-Northern

Well Depth: 71 ft. Date of Completion 4/16/63

☒ Cable tool ☐ Rotary ☐ Dug ☐ R.C.
☐ Driven ☐ Jetted ☐ Bored

Use: ☐ Domestic ☐ Public Supply ☐ Industry
☐ Irrigation ☐ Air Conditioning ☒ Dewatering
☐ Test Well ☐ _____

Casing: Diam. ____ in. to ____ ft. Depth
____ in. to ____ ft. Depth

Height: Above/Below surface ____ ft.
Type-Weight

Screen:
Type: _____ Dia: _____
Slot/Gauze _____ Length _____
Set between _____ ft. and _____ ft.
Accessories:

Water level:
29 ft. below LSD
____ ft. above/below _____
Meas. by Driller Date 11/16/63

Drawdown:
____ ft. after ____ hrs. pumping 60 g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.
Meas. by Driller Date 11/16/63

Flow: ____ g.p.m./g.p.h. Temp: °F

Water Quality in Parts Per Million:
Iron (Fe) _____ Chlorides (Cl) _____
Hardness _____

Elevation: ____ ft. above

Source of data: Layne Northern Well Record

Record by: RPB Date: 1/6/65

Remarks:

GEOLOGICAL SURVEY SAMPLE No. _____

WATER WELL RECORD

ACT 294 PA 1965

MICHIGAN DEPARTMENT OF PUBLIC HEALTH

3

1 LOCATION OF WELL

County	Twp.	Fraction	Section No.	Town	Range
Wayne	Dearborn	¼ ¼ NE ¼	28	2 N/S	10 E/W

Distance And Direction from Road Intersections: Parkland Towers E. of Southfield and N. off Hubbard

Street address & City of Well Location

OWNER No. _____

3 OWNER OF WELL: Ford Motor Land Dev.

Address 1 Parkland Blvd. Suite 1506 Dearborn, Mich. 48126 Att: Mr. R. W. Bedno

2 FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Yellow Clay	8'	8'
Blue Clay	33'	41'
Sandy Clay	12'	53'
Hard Clay	8'	61'
Butty Sand	18'	79'
Hard Clay	19'	98'
Soft Clay	22'	120'
Clay	17'	137'
Limestone	4'	141'

4 WELL DEPTH: (completed) 141 ft. Date of Completion 12-2-73

5 ☒ Cable tool ☐ Rotary ☐ Driven ☐ Dug ☐ Hollow rod ☐ Jetted ☐ Bored ☐ ____

6 USE: ☐ Domestic ☐ Public Supply ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☐ ____

7 CASING: Threaded ☐ Welded ☐

____ in. to ____ ft. Depth

____ in. to ____ ft. Depth

Height: Above/Below surface ____ ft.

Weight ____ lbs/ft.

Drive Shoe? Yes ☐ No ☐

8 SCREEN:

Type: ____ Dia.: ____

Slot/Gauze ____ Length ____

Set between ____ ft. and ____ ft.

Fittings:

9 STATIC WATER LEVEL

____ ft. below land surface

10 PUMPING LEVEL below land surface

____ ft. after ____ hrs. pumping ____ g.p.m.

____ ft. after ____ hrs. pumping ____ g.p.m.

11 WATER QUALITY in Parts Per Million:

Iron (Fe) ____ Chlorides (Cl) ____

Hardness ____

12 WELL HEAD COMPLETION: ☐ In Approved Pit ☐ Pitless Adapter ☐ 12" Above Grade

13 GROUTING:

Well Grouted? ☐ Yes ☐ No

Material: ☐ Neat Cement ☐ ____

Depth: From ____ ft. to ____ ft.

14 SANITARY:

Nearest Source of possible contamination

____ feet ____ Direction ____ Type

Well disinfected upon completion ☐ Yes ☐ No

15 PUMP:

Manufacturer's Name ____

Model Number ____ HP ____

Length of Drop Pipe ____ ft. capacity ____ G.P.M.

Type: ☐ Submersible ☐ ____ ☐ Jet ☐ Reciprocating

16 Remarks, elevation, source of data, etc.

ADDED INFO BY DRILLER, ITEM NO.

*CORRECTED BY

**ADDITION BY

ELEVATION

DEPTH TO ROCK

DRY HOLE ALL PIPE PULLED

HOLE CEMENTED

17 WATER WELL CONTRACTOR'S CERTIFICATION:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

O. O. Corsaut, Inc. — REGISTERED BUSINESS NAME

0025 — REGISTRATION NO.

Address 15151 W. 11 Mile Road, Oak Park 48237

Signed [signature] — AUTHORIZED REPRESENTATIVE

Date Dec. 26, 1973

D67D 100M 6-66

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Cons. 7401 Rev. 12/63

MICHIGAN DEPARTMENT OF CONSERVATION
GEOLOGICAL SURVEY DIVISION

WATER WELL RECORD L-9628

Page ___ of ___

Sample No.

Permit No.

Owner No. TW# 2 ?

County	Twp.		Sec.	Town	Range
Wayne	Dearborn	SE NW SW NE	30	2 S.	10 E.

Distance from Roads, Section Lines, etc.

735' N of Princeton st and 600' E of [Jim] Daley
prob John

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Top Soil	1	1
Clay brown	4	5
clay gray	19	24
Sand fine clean	11	35
Sand med. clean	12	47
clay	3	50
Sand coarse clean	20	70
clay	5	75
Sand fine silty	42	117
Gravel, v. muddy	3	120
Clay - stopped in clay	1	121

Owner: Village of Inkster

Address:

Driller and Address: Layne Northern - L.D. Coonrod

Well Depth: 121 ft. Date of Completion 12-1952

☐ Cable tool ☐ Rotary ☐ Dug ☒ R.C.
☐ Driven ☐ Jetted ☐ Bored

Use: ☐ Domestic ☐ Public Supply ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Dewatering
☒ Test Well ☐ ____

~~Casing~~: Diam. 8"
____ in. to ____ ft. Depth
____ in. to ____ ft. Depth

Height: Above/Below surface ____ ft.
Type-Weight

Screen:
Type: ____ Dia: ____
Slot/Gauze ____ Length ____
Set between ____ ft. and ____ ft.
Accessories:

Water level:
____ ft. above/below ____
____ ft. above/below ____
Meas. by Date

Drawdown:
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.
Meas. by Date

Flow:
g.p.m./g.p.h. Temp: °F

Water Quality in Parts Per Million:
Iron (Fe) ____ Chlorides (Cl) ____
Hardness ____

Elevation:
ft. above

Source of data:

Record by:
Date:

Remarks:

Cons.7401 Rev.12/63

MICHIGAN DEPARTMENT OF CONSERVATION
GEOLOGICAL SURVEY DIVISION

WATER WELL RECORD L-31349

Page of

Sample No.

Permit No.

Owner No. 65-A

County	Twp.		Sec.	Town	Range
Wayne	Dearborn	NE ¼ NW ¼ SW ¼	31	2 S.	10 E.

Distance from Roads, Section Lines, etc.

350' E. of S. Inkster Rd.
370' N. of Powers Ave.

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
fill	2	2
Sand clay little gravel	71	73
clay blue hard gravelly	37	110
Sand clay with boulders	7	117
Shale w.L. 100'	2	119
"Dry Hole" casing pulled		

Owner: Central Wayne Co. Sanitation

Address:

Driller and Address: Layne Northern - R. Lynch

Well Depth: 119 ft. Date of Completion 8-30-65

☐ Cable tool ☐ Rotary ☐ Dug ☐ R.C.
☐ Driven ☐ Jetted ☐ Bored

Use: ☐ Domestic ☐ Public Supply ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Dewatering
☒ Test Well ☐

~~Casing~~: Diam. 6" Hole
____ in. to ____ ft. Depth
____ in. to ____ ft. Depth

Height: Above/Below surface ____ ft.
Type-Weight

Screen:
Type: ____ Dia: ____
Slot/Gauze ____ Length ____
Set between ____ ft. and ____ ft.
Accessories:

Water level:
100 ft. ~~above~~/below ____
____ ft. above/below ____
Meas. by Date

Drawdown:
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.
Meas. by Date

Flow:
g.p.m./g.p.h. Temp: °F

Water Quality in Parts Per Million:
Iron (Fe) ____ Chlorides (Cl) ____
Hardness ____

Elevation:
ft. above

Source of data:

Record by:
Date:

Remarks:

Cons. 7401 Rev. 12/63

Page ____ of ____

Sample No.

MICHIGAN DEPARTMENT OF CONSERVATION
GEOLOGICAL SURVEY DIVISION
WATER WELL RECORD

Permit No.

Owner No. L-4744

County	Twp.		Sec.	Town	Range
Wayne	Dearborn	NW ¼ SE ¼ NW ¼	30	2 S.	10 E.

Distance from Roads, Section Lines, etc.

270' W. of Princess and 20' N. of Mich Cent RR (Prob. NY Cent RR)

FORMATION	THICKNESS OF STRATUM	DEPTH TO BOTTOM OF STRATUM
Fill	3	3
Clay Med hard	47	50
Clay soft	42	92
Sand fine muddy clayey	41	133
Limestone Traverse	24	157
Shale black	3	160

20' static in bedrock probably influenced by water seeping through from unconsolidated form. above.

Owner: Wolverine Fabricating + Mfg. Co.

Address: Inkster Mich

Driller and Address: Cayne Northern – Wiley Wright

Well Depth: 160 ft. Date of Completion 8-17-53

☐ Cable tool ☐ Rotary ☐ Dug ☐ R.C.
☐ Driven ☐ Jetted ☐ Bored

Use: ☐ Domestic ☐ Public Supply ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Dewatering
☒ Test Well ☐ ____

Casing: Diam. None in. to ____ ft. Depth
8" hole in. to ____ ft. Depth

Height: Above/Below surface ____ ft.
Type-Weight

Screen:
Type: ____ Dia: ____
Slot/Gauze ____ Length ____
Set between ____ ft. and ____ ft.
Accessories:

Water level:
20 ft. above/below ____
____ ft. above/below ____
Meas. by Date

Drawdown:
____ ft. after ____ hrs. pumping ____ g.p.m.
____ ft. after ____ hrs. pumping ____ g.p.m.
Meas. by Date

Flow: g.p.m./g.p.h. Temp: °F

Water Quality in Parts Per Million:
Iron (Fe) ____ Chlorides (Cl) ____
Hardness ____

Elevation: ft. above

Source of data:

Record by: Date:

Remarks:

Dearborn (Wayne County)

H. R. Ford Well

Location: NE corner of N½ SE¼ section 22, T. 2S., R. 10E., Dearborn township, Village of Dearborn on south side of Michigan Central railroad. About 100 feet south of H. R. Ford Machine shops.

Elevation: 612 feet above sea level.

Record by R. A. Smith from samples taken by Geo. T. Bence, Fostoria, Michigan, and from driller's log. Drilled in 1915 by Schrier and Kerr, Newark and Lancaster, Ohio.

Well commenced June 14, 1915.

	Thickness (feet)	Depth (feet)
Pleistocene:		
Clay and gravel	123	~~123~~
Gravel with fresh water	2	125
Devonian:		
Dundee:		
Light to dark gray and buff limestone, with cherty fossiliferous and bituminous horizone. (From 135-140 ft. flow of sulphate water)	75	200
Light gray to dark buff, bituminous crystalline limestone with sandy bituminous streaks	15	215
Detroit River:		
Gray argillaceous and bituminous dolomite with bituminous streaks. Strong odor of petroleum	10	225
Dark brown and light gray to buff, fine grained argillaceous dolomite with black bituminous shaly partings and some fine white anhydrite and selenite	35	260
Light to dark bluish gray and buff argillaceous dolomite with mottlings and streaks of distinct grayish blue. Pure white anhydrite 270-275 ft.	20	280
Dark brown granular dolomite and dark gray fine grained dolomite filled with specks, masses and streaks of carbonaceous material, and also some streaks of white anhydrite	30	310
Light to dark buff bituminous dolomite, locally argillaceous and with seams and thin beds of pure white anhydrite	25	335
Light grayish buff, argillaceous and brown bituminous and fine grained to "sugary" dolomite with considerable anhydrite and selenite, especially from 345 to 350 feet and 355-360 feet.	80	415
Flat Rock Dolomite Member:		
Gray to dark grayish buff, dark brown, and black bituminous dolomite, locally argillaceous and cherty. Considerable anhydrite, especially from 490-495 feet.	80	495

	Thickness (feet)	Depth (feet)
Sylvania:		
Very porous and sandy dark buff gray bituminous and granular dolomite. Pure white quartz grains embedded in a matrix of dolomite.	10	505
Grayish to pure white fine grained sandstone, little cemented. Glass sand	50	555
Grayish white dolomitic sandstone	15	570
Hard very dolomitic gray sandstone and very sandy dolomite	10	580
Pure white fine grained sandstone-glass sand	5	585
Gray to dark gray sandy to very sandy dolomite and pure white and gray dolomitic sandstone	15	600
White to pure white sandstone grading downward into gray sandstone	20	620
Silurian:		
Bass Island:		
Rasin River Dolomite Member:		
Gray to dark gray dense grained dolomite with much chert and some anhydrite	45	665
Light to dark buff and gray dolomite in places very argillaceous and some streaks of anhydrite	30	695
Light to very light gray and buff fine grained dolomite, porous and colitic from 715-720 feet. very cherty from 720-725 feet; and locally bituminous. Some streaks of anhydrite.	45	740
Dark buff, bituminous and laminated finely granular dolomite	5	745
Gray to light grayish and buff dolomite and colite with bituminous laminae	20	765
Bluish gray argillaceous dolomite with bluish mottlings and streaks, and very light buff to dark buff or brown bituminous and laminated dolomite, and some gray shale near the bottom	10	775
Light grayish buff dolomite	15	790
Light buff gray mottled and streaked dolomite, colite at the top and gray to bluish gray laminated bituminous and very argillaceous dolomite toward the bottom	20	810
Very light to light grayish buff dolomite, locally very argillaceous and with much white and gray anhydrite, especially below 820 feet.	35	845
Blue and buff argillaceous dolomite at the top; with pure white anhydrite at the bottom	5	850
Chiefly pure white anhydrite with some buff laminated dolomite	5	855
Dark buff, gray and black dolomite in places very argillaceous and bituminous, and with a thin bed of colite below 855 feet. Some anhydrite in streaks and in cavities	30	885
Light buff gray anhydrite and dolomite	20	905
Tymochtee Member:		
Grayish buff to dark gray very argillaceous dolomite, blue gray and buff shale, celestite, anhydrite	35	940
Red shaly dolomite; soft gray and red shale	15	955
Chiefly dark gray shale and shaly dolomite	35	990

0 99

Township 1S - Range 11E

Highland Park (Wayne County)

Ford Motor Company Well

Location: T. 1 S., R. 11 E., 48 feet south of north property line and 6 feet west of West Brush Street-line of Ford Motor Company, Woodward Avenue, Highland Park

Elevation: About 633 feet above sea level.

Record by: R. A. Smith from samples furnished by W. H. Smith of Ford Motor Company

	Thickness (Feet)	Depth (~~Feet~~)
No record	230	230
Devonian:		
Traverse:		
Gray, soft, shale calcareous and fossiliferous between 270 and 280 feet	70	300
Hard gray limestone, some gray shale or "soapstone"	5	305
Hard gray crystalline limestone	5	310
Bell:		
Soft, calcareous, light gray shale or "soapstone", very smooth grained	40	350
Dundee:		
Hard, light gray, crystalline limestone. Sample 350 to 355 badly rusted	10	360
Hard, white to light gray and buff crystalline limestone with dark brown and black streaks and laminae of bituminous matter. Two to three per cent of pure white sand, grains very rounded in samples 470 to 475 feet	115	475
Very hard, crystalline, light gray pyritic and sandy limestone. Many very small crystals of pyrite and 5% or more of pure white quartz sand with rounded grains of uniform size similar to Sylvania	5	480
Buff bituminous and white to light grayish buff limestone. Buff limestone is very sandy appearing, but contains very little sand. Crinoidal from 485 to 490 feet	10	490
Detroit River:		
Chiefly white, earthy looking dolomite, with fine laminae of pyritic and black bituminous matter. A little buff bituminous limestone apparently from Dundee above	5	495
Buff bituminous limestone and native sulphur	10	505
White, light gray, and buff bituminous limestone and native sulphur	5	510
Light gray dolomite	5	515
Light gray to buff dolomite	5	520
Light grayish buff to dark buff dolomite and dolomitic limestone	10	530
White and buff dolomite and dolomitic limestone	5	535
Hard buff granular dolomite and dolomitic limestone	5	540

(over)

	Thickness (Feet)	Depth (Feet)
Detroit River, continued		
Hard, light buff dolomite	15	555
Buff bituminous dolomite	15	170
White and light buff dolomite	5	575
Light buff and buff dolomite, and some black shale	5	580
Light buff dolomite, pure white anhydrite and gypsum	5	585
Light buff to buff dolomite and much pure white anhydrite	15	600
Dark buff dolomite	5	605
Light buff dolomite	5	610
Chiefly white dolomite, some light buff	10	620
Light gray, earthy looking dolomite	5	625
Buff crystalline dolomite	5	630
Light buff crystalline dolomite, sandy-about 5% of pure white quartz sand, grains rounded	15	645
White and very light buff dense grained dolomite	10	655
Light buff dolomite	5	660
Buff gray argillaceous dolomite with streaks and laminae of black bituminous shale	5	665
Light buff and white finely crystalline dolomite	15	680
Light buff dolomite and pure white anhydrite-25% anhydrite	10	690
Light grayish buff fine grained dolomite with black bituminous laminae	5	695
Very light gray grayish buff, and white dolomite	5	700
Buff dolomite with black bituminous streaks and soft white chalky limestone	5	705
Dark grayish buff dolomitic limestone	5	710
Grayish buff limestone. The limestone from about 705 to 730 feet may be the Anderdon beds	5	715
Buff limestone with much white chalky limestone	5	720
Light buff limestone	5	725
Light buff to buff limestone and dark buff bituminous dolomite	5	730
Dark gray dolomite and some light buff limestone	5	735
Sample from 735 to 745 missing-very probably dolomite	10	745
Grayish buff dolomite and considerable shaly white limestone	5	750
Grayish buff dolomite and dolomitic limestone	25	775
Buff gray dolomite	10	785
Sylvania:		
Pure white sandstone of uniform sized grains of white or colorless quartz. A little mixture of buff dolomite from above	5	790
Pure white sandstone-sample badly rusted from fragments of the drill	30	820
White dolomitic sandstone. 80% pure white quartz sand	5	825
Pure white sandstone	25	850
Pure white sandstone and gray sandy dolomite	5	855
Gray sandy dolomite-pure white rounded sand grains embedded in a dolomitic matrix	5	860

Township 1S - Range 12E

(B)

19-1S-12E

Detroit Twp., (Wayne Co.)

TD 395 in Detroit River

The Federal Carbonic Co. 5" Well

Location: SE¼ NW¼ section 19, T 1S, R 12E., Greenwood Ave. & G. T. R. R., Detroit

Elevation: 617 feet above sea level

Record by: E. S. Beal, Lansing, Mich. Drilled Dec. 1914. by Record from cores.

Drilling Contractor: E. S. Beal, Lansing, Mich.

	Thickness (Feet)	Depth (Feet)
PLEISTOCENE:		
Fill, yellow sand	12	12
Clay, blue with small pebbles, very firm	30	42
Clay, blue, smooth with occasional sand pockets	60	102
Clay, blue, very gritty with limestone cobbles & boulders	40	142
Gravel, 35' coarse, 11' very fine; dry all the way	46	188
DEVONIAN:		
Traverse:		
Limestone	4	192
Shale, black, very fossiliferous with shining grains, pyrites of iron	9	201
Soft gray slate or shale, slacks on exposure to air	14	215
Slate, gray, hard; cores run 8" to 3' long	24	239
	(51)	
Dundee:		
Limestone, blue	7	246
Limestone, white, very fossiliferous, numerous calcite seams; small flow at 285' - 3 gallons per minute	45	291
Limestone, sandy, very soft	21	312
Limestone, blue; trace of oil & iron pyrites	12	324
Limestone, cherty	4	328
Limestone, coral-formation, very fossiliferous	9	337
	(98)	
Detroit River:		
Dolomite, gray, sharp grit; very hard	23	360
Dolomite, whitish, sharp grit, very hard (small flows water at 376', water 30' from surface -6½ gallons per minute)	30	390
Dolomite, yellow, sandy, soft	5	395
	(58+)	
TOTAL DEPTH		395

Drilled December 1914

Detroit (Wayne County)

The Federal Carbonic Company 5" Well

Location: T.1 S., R.12E., Greenwood Ave & G.T.R.R., Detroit.

Elevation: 617 feet above sea level.

Drilled December, 1914 for the Federal Carbonic Co., Detroit, by E. S. Beal, Lansing, Michigan.

Record furnished by E. S. Beal from cores.

	Thickness (feet)	Depth (feet)
Pleistocene:		
Fill, yellow sand	12	12
Blue clay with small pebbles, very firm	30	42
Blue clay, smooth, with occasional sand pockets.	60	102
Blue clay, very gritty with limestone cobbles and boulders	40	142
Gravel, 35 ft. coarse, 11 ft. very fine. Dry all the way	46	188
Devonian:		
Traverse:		
Limestone	4	192
Bell:		
Black shale, very fossiliferous with shining grains, pyrites of iron	9	201
Soft gray slate or shale, slacks on exposure to air	14	215
Hard gray slate, cores run from 8 inches to 3 ft. long	24	239
Dundee:		
Blue limestone	7	246
White limestone, very fossiliferous, numerous calcite seams. Small flow at 285 ft., 3 gallons per minute.	45	291
Sandy limestone, very soft	21	312
Blue limestone, trace of oil and iron pyrites	12	324
Cherty limestone	4	328
Limestone, coral formation, very fossiliferous	9	337
Detroit River:		
Dolomite, gray, sharp grit and very hard	23	360
Dolomite, whitish, sharp grit, and very hard Small flows of water at 376 feet, water 30 ft. from surface, 6½ gallons per minute.	30	390
Dolomite, yellow, sandy, soft	5	395