



*Transmitted Via FedEx*

October 13, 2003

Mr. Allan Brouillet  
Environmental Response Division  
Michigan Department of Environmental Quality  
Saginaw Bay District  
503 North Euclid Street  
Bay City, MI 48706

Re: Annual Progress Report – October 2002 through September 2003  
General Motors Corporation Saginaw Malleable Iron Plant Property and  
REALM, Inc. Green Point Landfill and Drum Remediation Area  
Saginaw, Michigan  
BBL Project #: 0276 276.08 #2.04

Dear Mr. Brouillet:

This progress report presents a summary of the work activities conducted during the period of October 2002 through September 2003 for the above-referenced site, and a summary of the work activities anticipated for the following 12 months. This report was prepared in accordance with the requirements specified in the Consent Judgment executed between the Michigan Department of Environmental Quality (MDEQ), the Michigan Attorney General's Office, General Motors Corporation (GM), and Waste Management Inc. (WMI) that were entered by the State of Michigan Circuit Court on March 16, 1998. An October 15 submittal date for the annual reports was established by the MDEQ in a letter dated October 22, 1999 (Brouillet, A., October 1999).

#### **Significant RI/FS Activities and Correspondence**

The following is a summary of the significant Remedial Investigation/Feasibility Study (RI/FS) activities and correspondence completed during the period from October 1, 2002 through September 30, 2003.

#### ***Deliverables Submitted***

Schedule Tables 10-1 and 10-2 of the *RI/FS Work Plan* (BBL, October 1997; revised January 1998) have been updated to reflect actual submittal dates, and are included as Attachment A. All deliverables have been submitted to the MDEQ on or before the deliverable due dates specified in the MDEQ-approved October 1997 *RI/FS Work Plan* (schedule tables revised January 1998).

- Monthly reports have been transmitted to the MDEQ as specified in the RI/FS Work Plan (see references).
- The annual report for October 2001 through September 2002 was submitted to the MDEQ on October 10, 2002 (BBL, October 2002a).

- The Final Feasibility Study (FS) was submitted to the MDEQ on January 29, 2003. The revised Final Feasibility Study, including the Human Health Evaluation (HHE) as Appendix A, was transmitted to the MDEQ on July 29, 2003. Note that these submittals were made in accordance with the agreed upon schedule (including all approved extensions).
- The Environmental Monitoring Program Annual Report for the Green Point Landfill for 2002 was transmitted to the MDEQ on October 23, 2002.
- Submittal of *Notices of Migration of Contamination*, as required by Part 201 of the Natural Resources and Environmental Protection Act on September 18-19, 2003.

#### ***Key Correspondence and Communications***

- A letter dated November 21, 2002 was sent from Allan Brouillet (MDEQ) to Cheryl Hiatt (GM), which approved the October 2002 Annual Progress Report for the site.
- A letter to the MDEQ, dated November 26, 2002, was prepared by BBL on behalf of GM and WMI, which provided a summary of proposed modifications to the draft Human Health Evaluation (HHE), based on an October 30, 2002 meeting between MDEQ, GM, WMI, and BBL. Agreement was reached at the meeting on the approach to be taken in response to the majority of MDEQ's comments. For several comments the MDEQ requested written clarification to facilitate their review of the proposed resolution. Clarification of these items was provided in the November 26, 2002 letter.
- A conference call was held on December 10, 2002 between Rochelle Inglis (MDEQ), Cheryl Hiatt (GM), Holli Jones (BBL), and Lisa Coffey (BBL) to discuss the planned approach to revision of the draft HHE, as described in correspondence from BBL to the MDEQ, dated November 26, 2002.
- A letter dated January 30, 2003 from Allan Brouillet (MDEQ) was received by Cheryl Hiatt (GM), which acknowledged receipt of the Final Feasibility Study Report and requested a six-month review period.
- An email dated March 20, 2003 was sent from Susan Kaelber-Matlock (MDEQ) to Cheryl Hiatt (GM), which included an attached memo dated March 5, 2003 that presented comments on the Human Health Evaluation (HHE) presented in the Feasibility Study prepared for the site.
- On March 26, 2003, Christine Flaga (MDEQ) and John Schell (BBL) discussed the MDEQ comments on the HHE and proposed resolution of outstanding items. Christine Flaga followed up with an email to document the conversation and requested a written response from BBL to provide additional detail.
- An email dated March 27, 2003 was sent from John Schell (BBL) to Christine Flaga (MDEQ) that presented proposed changes to the site HHE. The email detailed the proposed changes and the basis for the assumptions used to develop the proposed changes.
- A telephone conversation was held on April 28, 2003, between Rochelle English (MDEQ) and Holli Jones (BBL) to discuss proposed changes to the Human Health Evaluation, as detailed in an email dated March 27, 2003 from BBL to the MDEQ. Tentative agreement was reached on the proposed changes.

- A series of telephone conversations were held in June 2003 between Rochelle English (MDEQ) and Holli Jones (BBL) regarding the HHE changes, and Ms. English indicated that she was preparing a memo outlining her remaining requests for the final document.
- A series of telephone conversations were held in July 2003 between Holli Jones of BBL and Rochelle English, Christine Flaga, and Jeff Crum of MDEQ regarding the HHE changes.
- A memo dated July 2, 2003 to Susan Kaelber-Matlock (MDEQ) from Rochelle Inglis (MDEQ) presented comments on the June 3, 2003 revised draft Human Health Evaluation. This memo was received by GM and BBL on July 16, 2003 via email.
- A memo dated July 21, 2003 to Chris Flaga (MDEQ) from Holli Jones (BBL) presented an evaluation used to demonstrate that site conditions (manganese concentrations) are protective of off-site residents. A memo dated July 24, 2003 to Jeff Crum (MDEQ) from Holli Jones (BBL) presented an evaluation used to demonstrate that site conditions (manganese concentrations) are protective of off-site residents.
- A letter dated September 9, 2003 was sent from Allan Brouillet (MDEQ) to Cheryl Hiatt (GM) acknowledging receipt of the revised Feasibility Study, and requesting a review time frame of up to six months.

#### **Supplemental RI/FS Sampling Activities**

##### ***Former Underground Storage Tank (UST) #7 Area***

- Semi-annual groundwater sampling activities took place in February 2003 and August 2003, and the data are shown in Table 1. Results of the February 20, 2003 activities were sent to the MDEQ on April 3, 2003 (BBL, April 2002c). It is anticipated that the August 25, 2003 results will be sent to the MDEQ in October 2003.

##### ***Quench Pit LNAPL Recovery Program***

- The automated skimmer pump that was installed in the Quench Pit Area (monitoring well QPTW-3) on February 8, 2002 continued to operate during the majority of the October 2002 through September 2003 time period. A total of approximately 1,040 gallons of LNAPL were recovered by the system through end of September 2003. The system did not operate during the second half of December 2002 due to plant maintenance activities, and also did not operate from July through September 2003, pending repair of the electrical supply to the pump.

##### ***LNAPL Recovery System***

- The LNAPL recovery system operated during the majority of the October 2002 through September 2003 time period. The system was shut down on July 1, 2002, due to a malfunction of electrical connections to a newly installed pump. This pump did not turn off as designed when the rest of the system was shutdown, causing water to back up into the oil/water separator, the building containment area, and into a small swale west of the building. The water did not enter the plant sewer system or leave the property. MDEQ was notified of the problem on July 2, 2002. The system remained shutdown until repairs were made to the system's electrical wiring. The wells were manually bailed until electrical wiring issues were resolved the week of January 19, 2003 and the system at well RW-1 was restarted on January 27, 2003. Groundwater pumps at RW-2 and RW-3 were also restarted at

this time. The system did not operate during July 2003 due to problems with the electrical supply to the pump, and has been shut down since August 4, 2003 pending removal of LNAPL from the site (storage totes at capacity).

The cumulative oil recovery and groundwater treatment statistics are as follows:

Operation	Approximate Volume of Oil Recovered (Gallons) <sup>1</sup>	Approximate Volume of Groundwater Treated (Gallons)
LNAPL System Total through September 30, 2003	3,209	1,931,338
Total Hand Bailed – July 2002 through February 2003	21	None
Water/LNAPL Pumped from Reverse Siphon of 42-inch Sewer Line – Total through May 6, 2002	30+	450
Total hand bailed in 1996 and 1997	710	None
Repair of 42-inch Storm Sewer Line (recovery from abandoned 30-inch line)	5,000+	Specific amount unknown
Repair (slip lining) of 42-inch storm sewer line	approximately 3,000+	Specific amount unknown
<b>Totals:</b>	<b>11,970+</b>	<b>1,931,788</b>

**Note:**<sup>1</sup> This total may include some water that is drawn through the LNAPL recovery lines under certain conditions of rapid water table fluctuation.

- Groundwater and LNAPL elevation measurements are made on a monthly basis in the vicinity of the LNAPL recovery system to monitor LNAPL distribution during system operation. Table 2 includes the LNAPL and groundwater measurement data.

### ***Green Point Landfill***

- Post-closure inspections of the Green Point Landfill cap were completed on December 18, 2002, April 18, 2003, June 18, 2003, and September 18, 2003. The Post-Closure Cap Inspection Forms were submitted with the corresponding monthly reports.
- The annual Green Point Landfill groundwater-sampling event was completed the week of June 16, 2003, and the data are included in Tables 3 and 4.

### ***Meetings***

- A meeting was held between representatives of the MDEQ, GM, WMI, and BBL on October 30, 2002 in Lansing, Michigan to review the MDEQ's comments on the draft Human Health Evaluation.

### **Anticipated RI/FS Activities**

The following activities are anticipated to be completed during the period from October 2003 through September 2004:


- Filling of the stormwater management channel that runs east-west at the northern end of the site. Soil excavated from the Saginaw River berm due to elevated manganese (particulate inhalation risk) will be placed at the base of the drainage channel, and additional soil will be added to fill the majority of

the channel, leaving a swale along the central and eastern sections of the channel and a constructed wetland at the western end.

- Collection of groundwater samples from select monitoring wells located adjacent to the Saginaw River using ultra low-flow sampling procedures. The collected samples will be analyzed for PCBs and/or select inorganic constituents that were previously detected.
- Submittal of the draft Remedial Action Plan within seven months of MDEQ approval of the FS.
- Continued operation of the LNAPL Recovery/Groundwater Treatment System located south of the plant building.
- Continued use of the automated skimmer pump to remove LNAPL in the Quench Pit Area.
- Semi-annual groundwater sampling activities at the Former UST #7 Area.
- Inspections of the Green Point Landfill cap (tentatively scheduled for December 2003, March 2004, June 2004, and September 2004).
- Completion of the Spring 2004 Green Point Landfill Environmental Monitoring Program groundwater sampling event (tentatively scheduled for June 2004).

Sincerely,

BLASLAND, BOUCK & LEE, INC.

  
Lisa R. Coffey, P.G.  
Associate, Sr. Geologist

JAS/plf  
Attachments

cc: Ms. Susan Kaelber-Matlock, MDEQ  
John Fordell Leone, Esq., Assistant Attorney General  
Ms. Cheryl Hiatt/Mr. Edward Peterson, GM WFG  
Anthony Thrubis, Esq., GM Legal Staff  
David Tripp, Esq., Dykema Gossett  
Mr. Phil Mazor, Waste Management, Inc.  
Mr. James Forney, Waste Management, Inc.  
Ms. Rachael Schneider, Attorney at Law, Quarles & Brady  
Ms. Jennifer Tegen/Mr. Joseph Toth, GM SMI  
Mr. Michael Gefell, P.G., Blasland, Bouck & Lee, Inc.  
Mr. Mike Tomka, CRA  
Mr. Ian Richardson, CRA

## Annual Progress Report – References

### General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

- Blasland, Bouck & Lee, Inc. (BBL), October 1997. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Remedial Investigation/Feasibility Study Work Plan*, October 1997; schedule tables revised January 1998.
- Blasland, Bouck & Lee, Inc. (BBL), October 2002a. *Annual Progress Report – October 2001 to September 2002, General Motors Corporation Saginaw Malleable Iron Plant Property and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan*. October 10, 2002.
- Blasland, Bouck & Lee, Inc. (BBL), October 2002b. *Environmental Monitoring Program Annual Report Green Point Landfill, Saginaw, Michigan*. October 23, 2002.
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- Blasland, Bouck & Lee, Inc. (BBL), December 2002. *Monthly Report #96 (November 2002)*, December 13, 2002.
- Blasland, Bouck & Lee, Inc. (BBL), January 2003a. *Monthly Report #97 (December 2002)*, January 13, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), January 2003b. *General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, Final Feasibility Study*. January 29, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), February 2003. *Monthly Report #98 (January 2003)*, February 14, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), March 2003. *Monthly Report #99 (February 2003)*, March 13, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), April 2003a. *February 2003 Semi-Annual Groundwater Monitoring Report, Interim Response Action, Former UST #7 Area, General Motors Corporation Saginaw Malleable Iron Plant, Saginaw, Michigan*. April 3, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), April 2003b. *Monthly Report #100 (March 2003)*, April 14, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), May 2003. *Monthly Report #101 (April 2003)*, May 15, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), June 2003. *Monthly Report #102 (May 2003)*, June 12, 2003.

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### General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

- Blasland, Bouck & Lee, Inc. (BBL), July 2003a. *Monthly Report #103 (June 2003)*, July 11, 2003.
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- Blasland, Bouck & Lee, Inc. (BBL), July 2003c. Report to MDEQ. Subject: *Final Human Health Evaluation Report*, submitted as Appendix A of Final Feasibility Study Report, July 29, 2003.
- Blasland, Bouck & Lee, Inc. (BBL), August 2003. *Monthly Report #104 (July 2003)*, August 13, 2003.
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- Blasland, Bouck & Lee, Inc. (BBL), October 2003. *Monthly Report #106 (September 2003)*, October \_\_, 2003.
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- Brouillet, Allan C. (MDEQ), January 2003. Letter to GM, Subject: *Acknowledgement of Receipt - Final Feasibility Study Report; Request for Extension of Evaluation Period*, January 30, 2003.
- Brouillet, Allan C. (MDEQ), November 2002. Letter to GM, Subject: *Annual Progress Report, General Motors Corporation Saginaw Malleable Iron Plant, Consent Judgment #98-22686-CE-2*, November 21, 2002.
- Brouillet, Brenda J. (MDEQ), November 2001. Letter to GM, Subject: *General Motors Malleable Iron Plant, Thirteenth Quarterly Groundwater Monitoring Report, Former UST #7 Area, Consent Judgment No. 98-22686-CE-2*, November 13, 2001.
- Brouillet, Brenda J. (MDEQ), June 2002. Letter to GM, Subject: *Draft Feasibility Study, Green Point Landfill/General Motors Saginaw Malleable Iron Facility, Consent Decree No. 98-22686-CE-2*, June 19, 2002.
- Flaga, Christine (MDEQ), March 2003. Email to BBL, Subject: *Saginaw Malleable* (documentation of conversation and request for written response on MDEQ comments on HHE), March 26, 2003.
- Hiatt, Cheryl (GM), September 2003. Letter to MDEQ, Subject: *Form 4482; Notice of Migration of Contamination; General Motors Corporation Saginaw Malleable Iron Plant Property, Saginaw, Michigan*. September 18, 2003.

## Annual Progress Report – References

### General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area Saginaw, Michigan

- Hiatt, Cheryl (REALM), September 2003. Letter to MDEQ, Subject: *Form 4482; Notice of Migration of Contamination; REALM Green Point Landfill and Drum Remediation Area, Saginaw, Michigan.* September 18, 2003.
- Hiatt, Cheryl (REALM), September 2003. Letter to Consumers Energy, Subject: *Notice of Migration; REALM Green Point Landfill Property, Saginaw, Michigan.* September 18, 2003.
- Hiatt, Cheryl (REALM), September 2003. Letter to Michigan Department of Natural Resources, Subject: *Notice of Migration; REALM Green Point Landfill Property, Saginaw, Michigan.* September 18, 2003.
- Hiatt, Cheryl (GM), September 2003. Letter to Delphi Automotive Systems LLC, Subject: *Notice of Migration; General Motors Corporation Saginaw Malleable Iron Plant Property, Saginaw, Michigan.* September 18, 2003.
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- Jones, Holli (BBL), July 2003. Memo to MDEQ, Subject: *Modifications to Human Health Evaluation Report for the GM SMI Plant,* July 21, 2003.
- Kaelber-Matlock, Susan (MDEQ), March 2003. Email to GM, Subject: *SMI Human Health Evaluation Report,* March 20, 2003.
- Schell, John (BBL), March 2003. Email to MDEQ, Subject: *Modifications to Human Health Evaluation Report for the GM SMI Plant,* March 27, 2003.

# Tables

Table 1

Current and Historic Groundwater Quality Data  
Former UST #7 Area

General Motors Corporation  
Saginaw Malleable Iron Plant  
Saginaw, Michigan

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Lead	Sulfate (mg/L)
Industrial & Commercial II, III & IV Drinking Water Criteria*		5 (A,I)	74 (E,I)	790 (E,I)	280 (E,I)	4 (L)	250 (E)
Groundwater Contact Criteria*		11000 (I)	170,000 (I,S)	530,000 (I,S)	190,000 (I,S)	ID	ID
Residential Groundwater Volatilization to Air Inhalation Criteria*		5600 (I)	110,000 (I)	530,000 (I,S)	190,000 (I,S)	NLV	NLV
Industrial Groundwater Volatilization to Air Inhalation Criteria*		35000 (I)	170,000 (I,S)	530,000 (I,S)	190,000 (I,S)	NLV	NLV
Monitoring Well	Date						
BBL-MW1	6/96	16	130	25 U	210	3 U	5 U
	7/98	13	13	1 U	10	100 U	5 U
	10/98	10	30	2	45	3 U	2
	1/99	26	32	3	54	1 U	2
	4/99	20	30	20 U	50	1 U	3
	7/99	27	17	5	20	3 U	2
	10/99	6	3	1 U	2	3 U	1 U
	1/00	4 (5)	5 (5)	1 U (1 U)	5 (5)	3 U (3 U)	1 U (1 U)
	5/00	8.1	10	0.77 J	15	10	25.1
	8/00	3 (1 U)	2 (1 U)	1 U (1 U)	2 (1 U)	3 U (3 U)	6 (6)
	10/00	17	22	2	36	3 U	1 U
	3/01	14 (15)	12 (13)	1 (1)	15 (17)	3 U (3 U)	1 U (1 U)
	5/01	14	9	1 U	9	1 U	5 U
	8/01	18(18)	13(13)	1 U	15(15)	3(3)	2(2)
	2/02	53	25	3	28	3 U	21
	8/02	6 (7)	2 (2)	1 U (1 U)	2 (2)	1 U (1U)	5 (4)
	3/03	23	4	2	3	1 U	16
8/03	23 (21)	4 (4)	2 (2)	4 (4)	0.001 U (0.001 U)	5 U (5 U)	
BBL-MW4	6/96	12	1 U	1 U	3 U	3 U	5 U
	7/98	5 U	1 U	1 U	3 U	100 U	NA
	10/98	1 U	1 U	1 U	1 U	3 U	NA
	1/99	2	1 U	1 U	1 U	2	NA
	4/99	1	1 U	1 U	2 U	1 U	NA
	7/99	1 U	1 U	3	2 U	3 U	NA
	10/99	1 U	1 U	1 U	2 U	3 U	NA
	1/00	1 U	1 U	1 U	2 U	3 U	NA
	5/00	1.6	1 U	0.12 J	1 U	5.1	9.6 BG
	8/00	1 U	1 U	1 U	1 U	3 U	NA
	10/00	1	1 U	1 U	1 U	3 U	NA
	3/01	2	1 U	1 U	1 U	3 U	NA
	5/01	1 U (1U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA
	8/01	1 U	1 U	1 U	1 U	1 U	NA
	2/02	1 U	1 U	1 U	1 U	3 U	NA
	8/02	1 U	1 U	1 U	1 U	1 U	NA
	3/03	1 U	1 U	1 U	1 U	1 U	NA
8/03	1 U	1 U	1 U	1 U	0.001 U	NA	
MW-135 WT	7/98	5 U	1 U	1 U	3 U	100 U	NA
	10/98	1	1 U	1 U	2 U	3 U	NA
	1/99	1 U	1 U	1 U	1 U	1 U	NA
	4/99	1 U	1 U	1 U	1 U	1 U	NA
	7/99	2	1 U	3	2 U	3 U	NA
	10/99	2	1 U	1 U	2 U	3 U	NA
	1/00	1 U	1 U	1 U	2 U	3 U	NA
	5/00	0.3 J	1 U	0.12 J	1 U	3 U	NA
	8/00	1 U	1 U	1 U	1 U	3 U	146
	10/00	1 U	1 U	1 U	1 U	3 U	NA
	3/01	1 U	1 U	1 U	1 U	3 U	NA
	5/01	1 U	1 U	1 U	1 U	3 U	NA
	8/01	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA (NA)
	2/02	1 U	1 U	1 U	1 U	3 U	NA
8/02	1 U	1 U	1 U	1 U	1 U	NA	
3/03	1 U	1 U	1 U	1 U	1 U	NA	
8/03	1 U	1 U	2 B	1 U	0.001 U	NA	

See notes, Page 4.

Table 1

Current and Historic Groundwater Quality Data  
Former UST #7 Area

General Motors Corporation  
Saginaw Malleable Iron Plant  
Saginaw, Michigan

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Lead	Sulfate (mg/L)	
Industrial & Commercial II, III & IV Drinking Water Criteria*		5 {A,I}	74 {E,I}	790 {E,I}	280 {E,I}	4 {L}	250 {E}	
Groundwater Contact Criteria*		11000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	ID	ID	
Residential Groundwater Volatilization to Air Inhalation Criteria*		5600 {I}	110,000 {I}	530,000 {I,S}	190,000 {I,S}	NLV	NLV	
Industrial Groundwater Volatilization to Air Inhalation Criteria*		35000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	NLV	NLV	
Monitoring Well	Date							
MW-139 WT	6/96	5 U	1 U	1 U	3 U	3 U	132	
	7/98	5 U	1 U	1 U	3 U	100 U	160	
	10/98	1 U	1 U	1 U	2 U	3 U	168	
	1/99	1 U	1 U	1 U	1 U	1 U	153	
	4/99	1 U	1 U	1 U	2 U	1 U	158	
	7/99	1 U	1 U	1 U	2 U	3 U	156	
	10/99	1 U (1)	1 U (1 U)	1 U (1 U)	2 U (2 U)	3 U (3 U)	152 (155)	
	1/00	1 U	1	1 U	7	3 U	162	
	5/00	1 U	1 U	0.29 J	1 U	3 U	168	
	8/00	1 U	1 U	1 U	1 U	3 U	170	
	10/00	1 (1)	1 U (1 U)	1 U (1 U)	1 (1)	3 U (3 U)	159 (156)	
	3/01	1 U	1 U	1 U	1 U	3 U	168	
	5/01	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	166 (167)	
	8/01	1 U	1 U	1 U	1 U	1 U	170	
	2/02	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	3 U (3 U)	163 (163)	
	8/02	1 U	1 U	1 U	1 U	1 U	166	
	3/03	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	164 (165)	
	8/03	1 U	1 U	2 B	1 B	0.001 U	170	
	UST 7-2	6/94	<u>2,100</u>	100 U	<u>3,100</u>	<u>9,800</u>	1	NA
		6/96	<u>950</u>	<u>1,700</u>	120 U	<u>3,600</u>	<u>114</u>	5 U
7/98		<u>6</u>	<u>17</u>	1 U	<u>6</u>	100 U	NA	
10/98		1 U	2	1 U	2 U	3 U	NA	
1/99		5	23	1 U	7	1 U	NA	
4/99		10 U	40	10 U	20	1 U	NA	
7/99		10 U	20	20	10	3 U	NA	
10/99		<u>10 (10 U)</u>	20 (20)	10 U (10 U)	10 (10)	3 U (3 U)	NA (NA)	
1/00		2	1 U	1 U	1	3 U	NA	
5/00		<u>1,500</u>	<u>1,200</u>	25 J	<u>1,200</u>	<u>35</u>	2 U G	
8/00		4	1	1 U	1 U	3 U	NA	
10/00		<u>50</u>	3	1	3	3 U	NA	
3/01		<u>95 (112)</u>	9 (9)	1 (5 U)	7 (8)	3 U (3 U)	NA (NA)	
5/01		<u>7</u>	1 U	1 U	1 U	1 U	NA	
8/01		<u>170</u>	50 U	50 U	50 U	1 U	NA	
2/02		<u>47</u>	1	1 U	3	3 U	NA	
8/02		1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA	
3/03		<u>67</u>	1 U	1	2	1 U	NA	
8/03		<u>123 (126)</u>	1 U (1)	2 (2)	2 (3)	0.001 U (0.001 U)	NA (NA)	
UST 7-3R		7/98	<u>14</u>	1 U	1 U	3 U	100 U	NA
	10/98	<u>12</u>	1 U	1 U	2 U	3 U	NA	
	1/99	5	1 U	1 U	1 U	1 U	NA	
	4/99	<u>18</u>	1 U	1 U	2 U	1 U	NA	
	7/99	<u>24</u>	1 U	2	2 U	3 U	NA	
	10/99	<u>50</u>	1 U	1 U	2 U	3 U	NA	
	1/00	<u>30 (32)</u>	1 U	1 U	2 U	4 (3 U)	NA	
	5/00	<u>13</u>	1 U	0.12 J	1 U	3 U	27.6	
	8/00	<u>28</u>	1 U	1 U	1 U	3 U	NA	
	10/00	<u>26</u>	1 U	1 U	1 U	3 U	NA	
	3/01	<u>15</u>	1 U	1 U	1 U	3 U	NA	
	5/01	<u>12</u>	1 U	1 U	1 U	3 U	NA	
	8/01	<u>35</u>	1 U	1 U	1 U	1 U	NA	
	2/02	<u>30</u>	1 U	1 U	1 U	3 U	NA	
	8/02	<u>6</u>	1 U	1 U	1 U	1 U	NA	
	3/03	<u>30</u>	1 U	1 U	1 U	1 U	NA	
	8/03	<u>9</u>	1 U	1 U	1 U	0.001 U	NA	

See Notes, Page 4.

Table 1

Current and Historic Groundwater Quality Data  
Former UST #7 Area

General Motors Corporation  
Saginaw Malleable Iron Plant  
Saginaw, Michigan

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Lead	Sulfate (mg/L)
Industrial & Commercial II, III & IV Drinking Water Criteria*		5 {A,I}	74 {E,I}	790 {E,I}	280 {E,I}	4 {L}	250 {E}
Groundwater Contact Criteria*		11000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	ID	ID
Residential Groundwater Volatilization to Air Inhalation Criteria*		5600 {I}	110,000 {I}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Industrial Groundwater Volatilization to Air Inhalation Criteria*		35000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Monitoring Well	Date						
UST 7-4	6/94	<u>110</u>	2.0 U	8	1.0 U	1.0 U	NA
	6/96	<u>44</u>	1.7 U	1.7 U	5.1 U	3 U	6
	7/98	<u>14</u>	1 U	1 U	3 U	100 U	NA
	10/98	<u>10</u>	1 U	1 U	2 U	3 U	NA
	1/99	<u>17</u>	1 U	1 U	2 U	1 U	NA
	4/99	<u>7</u>	1 U	1 U	2 U	1 U	NA
	7/99	<u>4</u>	1 U	4	2 U	3 U	NA
	10/99	<u>4</u>	1 U	1 U	1	3 U	NA
	1/00	<u>3</u>	1 U	1	1	<u>17</u>	NA
	5/00	<u>6</u>	0.18 J	0.22 J	0.67 J	<u>9.4</u>	30.5
	8/00	<u>3 (3)</u>	1 U (1 U)	1 U (1 U)	1 U (1 U)	3 U (3 U)	NA
	10/00	<u>23</u>	1 U	1 U	1 U	3 U	NA
	3/01	<u>2</u>	1 U	1 U	1	3 U	NA
	5/01	<u>2</u>	1 U	1 U	1 U	1 U	NA
	8/01	<u>2</u>	1 U	1 U	1 U	1 U	NA
	2/02	<u>16 (16)</u>	2 (3)	1 U (1 U)	1 (1)	3 U (3 U)	NA
	8/02	<u>1</u>	1 U	1 U	1 U	1 U	NA
	3/03	<u>1 U (1 U)</u>	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA
8/03	<u>2</u>	1 U	1 U	1 U	0.001 U	NA	
UST 7-5	6/94	<u>3,700</u>	<u>13,000</u>	<u>3,600</u>	<u>19,000</u>	1	NA
	6/96	<u>1,600</u>	<u>1,800</u>	<u>1,400</u>	<u>6,900</u>	<u>46</u>	8
	7/98	<u>1,900</u>	200 U	<u>930</u>	<u>7,900</u>	100 U	NA
	10/98	<u>1,390</u>	<u>1,330</u>	<u>990</u>	<u>5,120</u>	3 U	NA
	1/99	<u>190</u>	<u>680</u>	450	<u>4,440</u>	10	NA
	4/99	<u>400</u>	<u>890</u>	400	<u>6,540</u>	<u>5</u>	NA
	7/99	<u>300</u>	<u>240</u>	240	<u>3,470</u>	<u>4</u>	NA
	10/99	<u>20</u>	<u>110</u>	20	<u>860</u>	<u>5</u>	NA
	1/00	<u>23</u>	71	9	<u>354</u>	3 U	NA
	5/00	<u>42 (56)</u>	<u>71 (83)</u>	13 (13)	<u>330 (360)</u>	<u>20.3 (12.9)</u>	52.6 (54.2)
	8/00	<u>160</u>	<u>100</u>	40	<u>530</u>	3 U	NA
	10/00	<u>56 (59)</u>	27 (29)	30 (50 U)	<u>860 (870)</u>	3 U (3 U)	NA
	3/01	<u>200</u>	<u>100</u>	100 U	<u>1,300</u>	<u>6</u>	NA
	5/01	10 U	10	10 U	170	1	NA
	8/01	<u>160</u>	<u>130</u>	50 U	<u>690</u>	2	NA
	2/02	<u>1</u>	1	1 U	<u>7</u>	<u>14</u>	NA
	8/02	<u>7</u>	7	3	85	3	NA
	3/03	<u>330</u>	<u>380</u>	80	<u>1,400</u>	2	NA
8/03	<u>470</u>	<u>340</u>	100	<u>1,690</u>	0.001	NA	

See Notes, Page 4.

Table 1 (cont'd)

Current and Historic Groundwater Quality Data  
Former UST #7 Area

General Motors Corporation  
Saginaw Malleable Iron Plant  
Saginaw, Michigan

**Notes:**

All units are micrograms per liter (ug/L) except sulfate concentrations which are reported in units of milligrams per liter (mg/L).

ID = Insufficient Data.

Bolded and underlined values indicate exceedance of referenced criteria.

NA = Not Analyzed.

B = The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

G = Elevated reporting limit. The reporting limit is elevated due to matrix interference.

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

U = Not detected above method detection limit.

\* Michigan Department of Environmental Quality - Generic Industrial Cleanup Criteria and Screening Levels, December 2002.

{A} Criterion is the State of Michigan Drinking Water Standard established pursuant to Section 5 of the Safe Drinking Water Act, Act. No. 399 of the Public Acts

{E} Criterion is the aesthetic drinking water value, as required by Sec. 20120(1)(5).

{I} Hazardous substance may exhibit the characteristic of ignitability as defined in 40 CFR 261.21.

{L} Reserved.

{S} Criterion defaults to the chemical-specific water solubility limit.

NLV = Chemical is not likely to volatilize under most conditions.

The number in parentheses is the sample duplicate.

TABLE 2  
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY

GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT  
SAGINAW, MICHIGAN

Date	MW-147WT reference elevation = 592.07				MW-157WT reference elevation = 591.72				TP-2 reference elevation not available				RW-1 reference elevation = 592.18			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
24-Mar-00	8.11	1.57	9.68	583.83	7.82	1.00	8.82	583.82	8.81	0.34	9.15	NA	8.83	0.41	9.24	583.32
05-May-00	7.85	1.82	9.67	584.07	7.68	0.92	8.60	583.97	8.83	0.45	9.28	NA	8.83	0.45	9.28	583.31
26-May-00	7.50	2.06	9.56	584.41	7.40	0.95	8.35	584.24	8.53	0.67	9.20	NA	8.85	0.40	9.25	583.30
22-Jun-00	7.90	1.86	9.76	584.02	7.75	0.74	8.49	583.91	8.68	0.42	9.10	NA	9.01	0.37	9.38	583.14
14-Jul-00	7.87	1.84	9.71	584.05	7.72	0.71	8.43	583.94	8.65	0.62	9.27	NA	NA	NA	NA	NA
01-Sep-00	7.88	1.77	9.65	584.05	7.85	0.70	8.55	583.81	8.70	0.58	9.28	NA	9.00	0.37	9.37	583.15
06-Oct-00	8.10	1.75	9.85	583.83	7.88	0.75	8.63	583.78	8.85	0.50	9.35	NA	9.00	0.35	9.35	583.15
04-Nov-00	8.26	1.94	10.20	583.65	8.08	0.84	8.92	583.57	8.98	0.56	9.54	NA	8.98	0.48	9.46	583.16
20-Nov-00	8.15	1.66	9.81	583.79	NA	NA	NA	NA	8.90	0.46	9.36	NA	8.89	0.50	9.39	583.25
02-Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	9.10	0.37	9.47	NA	9.09	0.38	9.47	583.06
05/06-Feb-01	8.28	1.85	10.13	583.64	8.02	0.80	8.82	583.64	10.40	0.47	10.87	NA	10.58	1.18	11.76	581.51
28-Feb-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.80	0.41	9.21	583.35
13-Mar-01	8.12	1.48	9.60	583.83	NA	NA	NA	NA	8.80	0.39	9.19	NA	8.80	0.40	9.20	583.35
04-May-01	8.30	1.55	9.85	583.65	NA	NA	NA	NA	8.90	0.50	9.40	NA	8.80	0.41	9.21	583.35
24-May-01	8.06	1.54	9.60	583.89	NA	NA	NA	NA	8.84	0.46	9.30	NA	8.75	0.35	9.10	583.40
16-Jun-01	8.10	1.52	9.62	583.85	NA	NA	NA	NA	8.81	0.45	9.26	NA	8.68	0.02	8.70	583.50
15-Aug-01	8.31	1.61	9.92	583.63	NA	NA	NA	NA	9.15	0.23	9.38	NA	9.07	0.09	9.16	583.10
28-Sep-01	8.04	1.49	9.53	583.91	NA	NA	NA	NA	8.96	0.38	9.34	NA	8.91	0.16	9.07	583.26
31-Oct-01	7.87	1.54	9.41	584.08	NA	NA	NA	NA	9.04	0.20	9.24	NA	8.84	0.23	9.07	583.32
05-Dec-01	8.15	1.41	9.56	583.81	NA	NA	NA	NA	8.99	0.22	9.21	NA	8.79	0.26	9.05	583.37
10-Jan-02	8.31	0.33	8.64	583.73	NA	NA	NA	NA	8.91	0.21	9.12	NA	8.85	0.17	9.02	583.32
12-Feb-02	8.13	1.41	9.54	583.83	NA	NA	NA	NA	8.89	0.16	9.05	NA	8.80	0.24	9.04	583.36
18-Mar-02	7.90	1.45	9.35	584.05	NA	NA	NA	NA	NA	NA	NA	NA	8.78	0.20	8.98	583.38
06-May-02	8.01	0.93	8.94	583.99	NA	NA	NA	NA	8.58	0.52	9.10	NA	8.50	0.21	8.71	583.66
22-May-02	8.02	1.56	9.58	583.93	NA	NA	NA	NA	8.87	0.33	9.20	NA	8.81	0.34	9.15	583.34
17-Jun-02	7.98	1.57	9.55	583.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25-Sep-02	7.67	2.13	9.80	584.23	NA	NA	NA	NA	8.95	0.30	9.25	NA	NA	NA	NA	NA
29-Oct-02	7.77	2.78	10.55	584.08	7.94	0.01	7.95	583.78	9.04	0.30	9.34	NA	8.98	0.22	9.20	583.18
26-Nov-02	7.75	1.75	9.50	584.18	NA	NA	NA	NA	9.11	0.29	9.40	NA	9.03	0.18	9.21	583.14
19-Dec-02	7.78	1.27	9.05	584.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10-Jan-03	9.25	0.00	9.25	582.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25-Feb-03	8.18	1.30	9.48	583.79	NA	NA	NA	NA	9.39	0.57	9.96	NA	NA	NA	NA	NA
27-Mar-03	8.06	1.06	9.12	583.93	NA	NA	NA	NA	NA	NA	NA	NA	9.06	0.58	9.64	583.07
29-Apr-03	7.38	0.98	8.36	584.61	NA	NA	NA	NA	9.15	0.01	9.16	NA	8.99	0.79	9.78	583.13
29-May-03	6.69	2.15	8.84	585.21	NA	NA	NA	NA	8.68	0.01	8.69	NA	8.49	0.41	8.90	583.66
25-Jun-03	6.79	2.75	9.54	585.06	NA	NA	NA	NA	8.82	0.79	9.61	NA	8.58	0.43	9.01	583.57
30-Jul-03	6.63	2.78	9.41	585.22	NA	NA	NA	NA	8.71	0.78	9.49	NA	8.43	0.46	8.89	583.71
04-Aug-03	6.58	2.78	9.36	585.27	NA	NA	NA	NA	8.65	0.78	9.43	NA	8.40	0.45	8.85	583.74
18-Sep-03	6.80	2.85	9.65	585.04	NA	NA	NA	NA	NA	NA	NA	NA	8.70	0.45	9.15	583.44

See Notes on Page 4.

TABLE 2  
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY

GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT  
SAGINAW, MICHIGAN

Date	MW-158WT reference elevation = 591.78				MW-168WT reference elevation = 592.11				RW-3 reference elevation = 592.32				RW-2 reference elevation = 592.07			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
24-Mar-00	8.37	0.01	8.38	583.41	8.16	1.66	9.82	583.82	10.59	0.01	10.60	581.73	8.70	0.03	8.73	583.37
05-May-00	8.30	0.01	8.31	583.48	7.93	1.92	9.85	584.03	10.69	0.01	10.70	581.63	NA	NA	NA	NA
26-May-00	NP	0.00	8.09	583.69	7.57	1.96	9.53	584.38	NP	0.00	10.70	581.62	NP	0.00	8.78	583.29
22-Jun-00	NP	0.00	8.25	583.53	7.80	1.60	9.40	584.18	NP	0.00	7.53	584.79	NP	0.00	9.00	583.07
14-Jul-00	NP	0.00	8.21	583.57	7.78	1.59	9.37	584.20	NP	0.00	7.53	584.79	NP	0.00	9.10	582.97
01-Sep-00	NP	0.00	8.30	583.48	7.94	1.58	9.52	584.04	NP	0.00	7.12	585.20	NP	0.00	9.10	582.97
06-Oct-00	NA	NA	NA	NA	NA	NA	NA	NA	NP	0.00	7.90	584.42	NP	0.00	9.10	582.97
04-Nov-00	NP	0.00	8.56	583.22	NA	NA	NA	NA	NP	0.00	8.11	584.21	NP	0.00	9.05	583.02
20-Nov-00	8.48	0.01	8.49	583.30	8.11	1.82	9.93	583.85	7.67	0.01	7.68	584.65	8.93	0.01	8.94	583.14
02-Jan-01	NA	NA	NA	NA	8.46	1.12	9.58	583.56	8.35	0.01	8.36	583.97	8.87	0.01	8.88	583.20
05/06-Feb-01	9.09	0.01	9.10	582.69	7.92	1.91	9.83	584.04	NP	0.00	10.52	581.80	NP	0.00	10.61	581.46
28-Feb-01	NA	NA	NA	NA	NA	NA	NA	NA	9.09	0.01	9.10	583.23	8.95	0.01	8.96	583.12
13-Mar-01	NP	0.00	8.65	583.13	7.95	1.79	9.74	584.02	NP	0.00	9.84	582.48	8.94	0.01	8.95	583.13
04-May-01	NP	0.00	8.45	583.33	8.16	1.64	9.80	583.82	10.94	0.01	10.95	581.38	8.90	0.01	8.91	583.17
24-May-01	8.36	0.01	8.37	583.42	7.95	1.55	9.50	584.04	9.90	0.01	9.91	582.42	8.88	0.01	8.89	583.19
16-Jun-01	8.42	0.01	8.43	583.36	7.93	1.55	9.48	584.06	9.87	0.01	9.88	582.45	8.92	0.01	8.93	583.15
15-Aug-01	NP	0.00	8.67	583.11	8.41	1.17	9.58	583.61	8.43	0.01	8.44	583.89	9.05	0.01	9.06	583.02
28-Sep-01	NP	0.00	8.51	583.27	NA	NA	NA	NA	NP	0.00	6.87	585.45	NP	0.00	8.75	583.32
31-Oct-01	NP	0.00	9.41	582.37	NA	NA	NA	NA	8.21	0.01	8.22	584.11	8.73	0.01	8.74	583.34
05-Dec-01	8.43	0.01	8.44	583.35	8.24	0.95	9.19	583.79	8.59	0.01	8.60	583.73	8.69	0.04	8.73	583.38
10-Jan-02	8.54	0.01	8.55	583.24	NA	NA	NA	NA	8.69	0.01	8.70	583.63	8.78	0.01	8.79	583.29
12-Feb-02	8.39	0.02	8.41	583.39	8.21	0.97	9.18	583.82	8.56	0.01	8.57	583.76	8.68	0.01	8.69	583.39
18-Mar-02	NP	0.00	8.25	583.53	NA	NA	NA	NA	NP	0.00	7.83	584.49	NP	0.00	8.50	583.57
06-May-02	NP	0.00	7.62	584.16	7.80	1.27	9.07	584.21	8.08	0.01	8.09	584.24	NP	0.00	8.16	583.91
22-May-02	NP	0.00	7.75	584.03	7.41	1.15	8.56	584.61	NP	0.00	7.65	584.67	8.27	0.01	8.28	583.80
17-Jun-02	7.65	0.01	7.66	584.13	7.45	1.79	9.24	584.52	7.66	0.01	7.67	584.66	8.28	0.01	8.29	583.79
25-Sep-02	NA	NA	NA	NA	NA	NA	NA	NA	8.60	0.01	8.61	583.72	8.93	0.01	8.94	583.14
29-Oct-02	NP	0.00	8.60	583.18	NA	NA	NA	NA	NP	0.00	8.69	583.63	8.99	0.01	9.00	583.08
26-Nov-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19-Dec-02	NA	NA	NA	NA	NA	NA	NA	NA	NP	0.00	8.82	583.50	NP	0.00	9.08	582.99
10-Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	NP	0.00	8.83	583.49	NP	0.00	9.06	583.01
25-Feb-03	NA	NA	NA	NA	NA	NA	NA	NA	9.00	0.01	9.01	583.32	9.19	0.01	9.20	582.88
27-Mar-03	NA	NA	NA	NA	NA	NA	NA	NA	8.93	0.01	8.94	583.39	9.11	0.01	9.12	582.96
29-Apr-03	NA	NA	NA	NA	NA	NA	NA	NA	8.51	0.01	8.52	583.81	9.01	0.01	9.02	583.06
29-May-03	NA	NA	NA	NA	NA	NA	NA	NA	7.35	0.01	7.36	584.97	8.65	0.01	8.66	583.42
25-Jun-03	NA	NA	NA	NA	NA	NA	NA	NA	8.95	0.01	8.96	583.37	9.63	0.01	9.64	582.44
30-Jul-03	NA	NA	NA	NA	NA	NA	NA	NA	8.78	0.01	8.79	583.54	9.47	0.01	9.48	582.60
04-Aug-03	NA	NA	NA	NA	NA	NA	NA	NA	8.73	0.01	8.74	583.59	9.46	0.01	9.47	582.61
18-Sep-03	NA	NA	NA	NA	NA	NA	NA	NA	NP	0.00	8.28	584.04	8.92	0.01	8.93	583.15

See Notes on Page 4.

TABLE 2  
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY

GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT  
SAGINAW, MICHIGAN

Date	MW-169WT reference elevation = 591.82				MW-172WT reference elevation = 591.51				MW-160WT reference elevation = 591.53				RW-4 reference elevation = 592.27			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
24-Mar-00	8.66	0.01	8.67	583.16	8.10	0.33	8.43	583.38	NA	NA	NA	NA	8.14	0.15	8.29	584.12
05-May-00	8.49	0.01	8.50	583.33	8.18	0.40	8.58	583.30	NA	NA	NA	NA	8.12	0.16	8.28	584.14
26-May-00	NP	0.00	8.43	583.39	8.09	0.01	8.10	583.42	8.11	0.40	8.51	583.39	7.65	0.20	7.85	584.60
22-Jun-00	NP	0.00	8.36	583.46	8.12	0.48	8.60	583.35	8.15	0.52	8.67	583.34	7.87	0.18	8.05	584.39
14-Jul-00	NP	0.00	8.34	583.48	8.10	0.47	8.57	583.37	8.11	0.55	8.66	583.38	7.84	0.16	8.00	584.42
01-Sep-00	NP	0.00	8.41	583.41	8.14	0.48	8.62	583.33	8.20	0.51	8.71	583.29	8.01	0.21	8.22	584.24
06-Oct-00	NP	0.00	8.32	583.50	8.30	0.90	9.20	583.14	NA	NA	NA	NA	7.71	0.22	7.93	584.54
04-Nov-00	NA	NA	NA	NA	8.47	1.03	9.50	582.96	8.45	0.77	9.22	583.02	8.45	0.08	8.53	583.81
20-Nov-00	NA	NA	NA	NA	8.31	0.70	9.01	583.14	8.40	0.63	9.03	583.08	8.30	0.05	8.35	583.97
02-Jan-01	NA	NA	NA	NA	NA	NA	NA	NA	8.48	0.66	9.14	583.00	NP	0.00	14.18	578.09
05/06-Feb-01	8.65	0.01	8.66	583.17	8.42	1.14	9.56	583.00	8.54	0.68	9.22	582.94	12.25	0.01	12.26	580.02
28-Feb-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Mar-01	NA	NA	NA	NA	8.27	0.73	9.00	583.18	8.36	0.45	8.81	583.13	NP	0.00	8.05	584.22
04-May-01	8.04	0.01	8.05	583.78	8.36	0.91	9.27	583.08	8.45	0.65	9.10	583.03	NP	0.00	8.30	583.97
24-May-01	7.93	0.01	7.94	583.89	8.33	0.79	9.12	583.12	8.42	0.52	8.94	583.07	7.98	0.01	7.99	584.29
16-Jun-01	7.91	0.01	7.92	583.91	8.36	0.78	9.14	583.09	8.48	0.50	8.98	583.01	8.06	0.01	8.07	584.21
15-Aug-01	8.45	0.01	8.46	583.37	8.39	0.78	9.17	583.06	8.47	0.64	9.11	583.01	NP	0.00	8.16	584.11
28-Sep-01	NP	0.00	8.05	583.77	8.19	0.35	8.54	583.29	8.31	0.43	8.74	583.19	8.09	0.01	8.10	584.18
31-Oct-01	NP	0.00	7.85	583.97	8.18	0.19	8.37	583.31	8.30	0.38	8.68	583.20	NA	NA	NA	NA
05-Dec-01	NP	0.00	7.81	584.01	8.14	0.21	8.35	583.35	8.29	0.39	8.68	583.21	NA	NA	NA	NA
10-Jan-02	NP	0.00	8.62	583.20	8.23	0.66	8.89	583.23	8.31	0.38	8.69	583.19	NA	NA	NA	NA
12-Feb-02	NP	0.00	7.76	584.06	8.12	0.20	8.32	583.37	8.26	0.38	8.64	583.24	NA	NA	NA	NA
18-Mar-02	NP	0.00	7.96	583.86	7.93	0.25	8.18	583.36	7.99	0.19	8.18	583.52	NA	NA	NA	NA
06-May-02	NP	0.00	7.90	583.92	7.64	0.21	7.85	583.85	7.71	0.20	7.91	583.80	NA	NA	NA	NA
22-May-02	NP	0.00	7.96	583.86	7.78	0.15	7.93	583.72	7.83	0.29	8.12	583.68	NA	NA	NA	NA
17-Jun-02	7.91	0.01	7.92	583.91	7.76	0.23	7.99	583.73	7.83	0.31	8.14	583.68	NA	NA	NA	NA
25-Sep-02	8.17	0.01	8.18	583.65	8.47	0.53	9.00	583.00	8.36	0.79	9.15	583.11	NA	NA	NA	NA
29-Oct-02	NP	0.00	8.50	583.32	8.42	0.88	9.30	583.02	8.54	0.56	9.10	582.95	NA	NA	NA	NA
26-Nov-02	NA	NA	NA	NA	8.45	0.82	9.27	582.99	8.60	0.53	9.13	582.89	NA	NA	NA	NA
19-Dec-02	NP	0.00	8.61	583.21	8.43	0.90	9.33	583.01	8.55	0.63	9.18	582.93	NA	NA	NA	NA
10-Jan-03	NP	0.00	8.58	583.24	8.49	0.83	9.32	582.95	8.60	0.56	9.16	582.89	NA	NA	NA	NA
25-Feb-03	NP	0.00	8.67	583.15	8.51	1.01	9.52	582.92	8.72	0.56	9.28	582.77	NA	NA	NA	NA
27-Mar-03	NP	0.00	8.62	583.20	8.46	0.84	9.30	582.98	8.62	0.53	9.15	582.87	NA	NA	NA	NA
29-Apr-03	NP	0.00	8.59	583.23	8.44	0.71	9.15	583.01	8.58	0.37	8.95	582.92	NA	NA	NA	NA
29-May-03	NP	0.00	7.95	583.87	7.60	0.50	8.10	583.87	7.77	0.26	8.03	583.74	NA	NA	NA	NA
25-Jun-03	NP	0.00	8.31	583.51	8.35	0.67	9.02	583.11	8.47	0.22	8.69	583.04	NA	NA	NA	NA
30-Jul-03	NP	0.00	8.21	583.61	8.20	0.73	8.93	583.25	8.36	0.22	8.58	583.15	NA	NA	NA	NA
04-Aug-03	NP	0.00	8.18	583.64	8.17	0.73	8.90	583.28	8.32	0.22	8.54	583.19	NA	NA	NA	NA
18-Sep-03	NP	0.00	8.51	583.31	8.35	0.80	9.15	583.10	8.48	0.34	8.82	583.02	NA	NA	NA	NA

See Notes on Page 4.

TABLE 2  
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY

GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT  
SAGINAW, MICHIGAN

Date	MW-148WT reference elevation = 592.02				MW-170WT reference elevation = 591.28				MW-178WT reference elevation = 590.35				MW-175WT reference elevation not available			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
24-Mar-00	7.70	2.52	10.22	584.12	11.00	0.02	11.02	580.28	7.65	0.80	8.45	582.64	7.66	0.01	7.67	NA
05-May-00	7.63	2.55	10.18	584.19	11.24	0.02	11.26	580.04	7.58	1.01	8.59	582.69	7.59	0.01	7.60	NA
26-May-00	6.96	2.89	9.85	584.83	10.89	0.02	10.91	580.39	7.58	1.00	8.58	582.69	NP	0.00	7.61	NA
22-Jun-00	7.05	2.75	9.80	584.75	10.92	0.02	10.94	580.36	7.87	0.78	8.65	582.42	NP	0.00	7.82	NA
14-Jul-00	7.01	2.77	9.78	584.79	10.87	0.02	10.89	580.41	7.85	0.75	8.60	582.44	NP	0.00	7.79	NA
01-Sep-00	7.20	2.65	9.85	584.61	NA	NA	NA	NA	7.90	0.78	8.68	582.39	NP	0.00	7.91	NA
06-Oct-00	6.85	2.95	9.80	584.93	10.78	0.02	10.80	580.50	7.44	0.95	8.39	582.83	NP	0.00	7.51	NA
04-Nov-00	8.02	3.13	11.15	583.75	NA	NA	NA	NA	7.66	0.59	8.25	582.64	6.57	0.01	6.58	NA
20-Nov-00	7.85	3.24	11.09	583.91	NA	NA	NA	NA	7.64	0.87	8.51	582.64	NP	0.00	7.64	NA
02-Jan-01	10.56	3.65	14.21	581.17	NA	NA	NA	NA	NA	NA	NA	NA	NP	0.00	7.81	NA
05/06-Feb-01	9.56	3.07	12.63	582.21	NA	NA	NA	NA	7.64	0.96	8.60	582.63	7.65	0.01	7.66	NA
28-Feb-01	8.87	1.54	10.41	583.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13-Mar-01	7.70	2.70	10.40	584.10	NA	NA	NA	NA	7.63	0.92	8.55	582.65	NP	0.00	7.40	NA
04-May-01	8.05	1.80	9.85	583.83	NA	NA	NA	NA	7.62	1.11	8.73	582.64	NP	0.00	7.50	NA
24-May-01	7.68	1.77	9.45	584.20	NA	NA	NA	NA	7.64	0.92	8.56	582.64	NP	0.00	7.37	NA
16-Jun-01	7.61	1.77	9.38	584.27	NA	NA	NA	NA	7.68	0.94	8.62	582.59	NP	0.00	7.41	NA
15-Aug-01	7.81	1.71	9.52	584.07	NA	NA	NA	NA	7.63	0.91	8.54	582.65	7.47	0.01	7.48	NA
28-Sep-01	7.53	2.11	9.64	584.32	NA	NA	NA	NA	7.73	0.80	8.53	582.56	NA	NA	NA	NA
31-Oct-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
05-Dec-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10-Jan-02	NA	NA	NA	NA	NA	NA	NA	NA	7.61	0.88	8.49	582.67	NA	NA	NA	NA
12-Feb-02	NA	NA	NA	NA	NA	NA	NA	NA	7.66	0.87	8.53	582.62	NA	NA	NA	NA
18-Mar-02	NA	NA	NA	NA	NA	NA	NA	NA	7.58	1.95	9.53	582.61	NA	NA	NA	NA
06-May-02	NA	NA	NA	NA	NA	NA	NA	NA	7.55	0.98	8.53	582.72	NP	0.00	6.95	NA
22-May-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NP	0.00	6.86	NA
17-Jun-02	NA	NA	NA	NA	NA	NA	NA	NA	7.48	1.22	8.70	582.77	NP	0.00	6.90	NA
25-Sep-02	NA	NA	NA	NA	NA	NA	NA	NA	7.47	1.28	8.75	582.78	NP	0.00	6.84	NA
29-Oct-02	NA	NA	NA	NA	NA	NA	NA	NA	7.99	1.40	9.39	582.25	NP	0.00	7.67	NA
26-Nov-02	NA	NA	NA	NA	NA	NA	NA	NA	7.56	1.29	8.85	582.69	NP	0.00	7.34	NA
19-Dec-02	NA	NA	NA	NA	NA	NA	NA	NA	7.63	0.96	8.59	582.64	NA	NA	NA	NA
10-Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	7.56	1.24	8.80	582.69	NA	NA	NA	NA
25-Feb-03	NA	NA	NA	NA	NA	NA	NA	NA	7.59	1.19	8.78	582.66	NA	NA	NA	NA
27-Mar-03	NA	NA	NA	NA	NA	NA	NA	NA	7.71	1.37	9.08	582.53	NA	NA	7.58	NA
29-Apr-03	NA	NA	NA	NA	NA	NA	NA	NA	7.60	1.10	8.70	582.66	NP	0.00	7.67	NA
29-May-03	NA	NA	NA	NA	NA	NA	NA	NA	7.56	1.21	8.77	582.69	NP	0.00	7.62	NA
25-Jun-03	NA	NA	NA	NA	NA	NA	NA	NA	7.04	1.07	8.11	583.22	NP	0.00	7.17	NA
30-Jul-03	NA	NA	NA	NA	NA	NA	NA	NA	7.41	1.18	8.59	582.85	NP	0.00	7.48	NA
04-Aug-03	NA	NA	NA	NA	NA	NA	NA	NA	7.30	1.13	8.43	582.96	NP	0.00	7.32	NA
18-Sep-03	NA	NA	NA	NA	NA	NA	NA	NA	7.27	1.14	8.41	582.99	NP	0.00	7.30	NA
									7.50	1.35	8.85	582.74	NP	0.00	7.33	NA

Notes:

The reference elevation for each of the recovery wells (RW-1, RW-2, RW-3, and RW-4) is the ground surface elevation; approximately equal to the elevation of the edge of the vault.  
 NA = not available; monitoring well inaccessible (e.g., covered by pallet, gravel, roll-off, or snowpile). NM = Not measured.  
 NP = LNAPL was not present in well. An LNAPL density of 0.92 was used to correct the water level elevations for the presence of LNAPL.

Monitoring well MW-170WT was destroyed during construction activities associated with lining the Stormwater Pond.  
 Elevations for wells TP-2 and MW-175 are not available. Missing values for MW-160 are due to a lodged well cover.

As of October 2001, recovery well RW-4 was disconnected from the recovery system, and wells located on the upgradient Delphi Plant 2 property were excluded from the gauging program

TABLE 3

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	MW-117WT					MW-117S1					MW-118WT							
	6/20/95	5/19/00	6/18/01	6/26/02	6/19/03	6/20/95	5/19/00	6/19/01	6/26/02	6/19/03	6/20/95	5/17/00	6/19/01	6/19/01	6/27/02	6/27/02	6/19/03	6/19/03
	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	DUP	FS	DUP
Acetone	50 U	10 U	10 U	10 U	2.0 U	50 U	10 U	10 U	10 U	2.0 U	50 U	10 U	40 U	40 U	20 U	10 U	2.0 U	2.0 U
Benzene	1.0 U	0.13 J	1.0 U	0.16 J	1.0 U	1.0 U	0.60 J	1.0 U	0.75 J	0.58 J	1.0 U	0.54 J	4.0 U	4.0 U	0.34 J	1.0 U	1.0 U	1.0 U
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50 U	10 U	10 U	10 U	2.0 U	50 U	10 U	10 U	10 U	2.0 U	50 U	10 U	40 U	40 U	20 U	10 U	1.0 U	1.0 U
Carbon disulfide	50 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 J	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	2.0 U	2.0 U	1.0 U	0.50 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	2.0 U	2.0 U	1.0 U	0.50 U	1.0 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.10 J	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	R	10 U	10 U	10 U	2.0 U	R	10 U	10 U	10 U	2.0 U	R	10 U	40 U	40 U	20 U	10 U	1.0 U	1.0 U
4-Methyl-2-pentanone	50 U	10 U	5.0 U	10 U	2.0 U	50 U	10 U	5.0 U	10 U	2.0 U	50 U	28	180	180	4.9 J	5.2 J	0.75 J	0.60
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.14 J	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	0.47 J	4.0 U	4.0 U	2.0 U	1.0 U	1.0 U	1.0 U

See Notes, Page 5.

TABLE 3

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	MW-118S1						MW-128WT					MW-128S1				
	6/20/95 FS	5/17/00 FS	5/17/00 DUP	6/19/01 FS	6/27/02 FS	6/19/03 FS	7/26/95 FS	5/19/00 FS	6/20/01 FS	6/26/02 FS	6/18/03 FS	7/26/95 FS	5/19/00 FS	6/20/01 FS	6/26/02 FS	6/18/03 FS
Acetone	50 U	10 U	10 U	10 U	10 U	2.0 U	7.3 J	10 U	10 U	10 UJ	2.0 U	6.7 J	10 U	10 U	10 UJ	2.0 U
Benzene	1.0 U	0.47 J	0.46 J	1.0 U	0.37 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.28 J	0.27 J	0.33 J	0.50 J
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50 U	10 U	10 U	10 U	10 UJ	2.0 U	50 U	10 U	10 U	10 U	2.0 U	50 U	10 U	10 U	10 U	2.0 U
Carbon disulfide	1.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene (total)	1.0 U	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--
cis-1,2-Dichloroethene	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	R	10 U	10 U	10 U	10 U	2.0 U	R	10 U	10 U	10 U	2.0 U	R	10 U	10 U	10 U	2.0 U
4-Methyl-2-pentanone	50 U	10 U	10 U	5.0 U	10 U	2.0 U	50 U	10 U	5.0 U	10 U	2.0 U	50 U	10 U	5.0 U	10 U	2.0 U
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	0.90 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	1.0 U	0.33 J	0.33 J	0.27 J	0.27 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U

See Notes, Page 5.

TABLE 3

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	X-1A						X-1B					X-1CR2			X-2A				
	7/29/95 FS	6/10/96 FS	5/23/00 FS	6/20/01 FS	6/25/02 FS	6/17/03 FS	7/29/95 FS	5/24/00 FS	6/20/01 FS	6/25/02 FS	6/17/03 FS	6/26/02 FS	6/19/03 FS	7/15/95 FS	5/19/00 FS	6/18/01 FS	6/26/02 FS	6/17/03 FS	
Acetone	180 U	210 U	20 U	20 U	10 U	2.0 UJ	5.5 J	16 U	11 U	20 U	2.0 UJ	10 UJ	2.0 U	50 UJ	10 U	10 U	10 UJ	2.0 UJ	
Benzene	9.5	8.7 J	8.0	9.3	6.2	4.4	1.9	1.2	2.2	1.7 J	0.53 J	1.0 U	1.0 U	1.0 U	0.36 J	0.57 J	0.71 J	0.60 J	
Bromodichloromethane	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane	3.6 U	2.1 U	0.34 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
2-Butanone	180 U	100 U	20 UJ	20 U	10 U	2.0 U	50 U	10 UJ	10 U	20 U	2.0 U	10 U	2.0 U	50 UJ	10 U	10 U	10 U	2.0 U	
Carbon disulfide	180 U	100 U	2.0 U	2.0 U	1.0 U	1.0 U	50 U	0.14 J	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon Tetrachloride	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobenzene	3.6 U	2.1 U	0.33 J	0.33 J	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	66	65	32	42	15	8.5	13	11	15	8.4	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane	3.6 U	2.1 U	2.0 UJ	2.0 U	1.0 U	1.0 U	1.0 U	0.46 J	0.88 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	3.6 U	2.1 U	0.35 J	2.0 U	0.54 J	0.38 J	1.0 U	0.13 J	0.18 J	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethene (total)	3.6 U	2.1 U	2.0 U	2.0 U	--	--	1.0 U	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U	1.0 U	--	--	
cis-1,2-Dichloroethene	3.6 U	2.1 U	0.23 J	1.0 U	0.45 J	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
trans-1,2-Dichloroethene	3.6 U	2.1 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
1,2-Dichloropropane	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,3-Dichloropropene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,3-Dichloropropene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
2-Hexanone	180 U	100 U	20 U	20 U	10 U	2.0 U	50 U	10 U	10 U	20 U	2.0 U	10 U	2.0 U	50 U	10 U	10 U	10 U	2.0 U	
4-Methyl-2-pentanone	180 U	100 U	20 U	10 U	10 U	2.0 U	50 U	10 U	5.0 U	20 U	2.0 U	10 U	2.0 U	50 U	10 U	5.0 U	10 U	2.0 U	
Methylene Chloride	3.6 U	5.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Styrene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Toluene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,1-Trichloroethane	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	0.44 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethene	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Vinyl Chloride	3.6 U	2.1 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	11 U	6.2 U	2.5	2.3	0.78 J	0.77 J	3.0 U	1.0 U	0.63 J	2.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	

See Notes, Page 5.

TABLE 3

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	X-10A		X-10AR2				X-16A					X-16B					
	6/13/96 FS	5/24/00 FS	11/27/01 FS	11/27/01 DUP	6/26/02 FS	6/19/03 FS	7/27/95 FS	5/24/00 FS	6/19/01 FS	6/25/02 FS	6/17/03 FS	7/28/95 FS	5/19/00 FS	6/20/01 FS	6/26/02 FS	6/17/03 FS	
Acetone	100 U	10 U	10 UJ	10 UJ	10 UJ	2.0 U	50 U	10 U	10 U	10 U	2.0 UJ	50 UJ	10 U	10 U	10 U	2.0 UJ	
Benzene	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
2-Butanone	50 U	10 UJ	10 UJ	10 UJ	10 U	2.0 U	50 U	10 UJ	10 U	10 U	2.0 U	50 UJ	10 U	10 U	10 U	2.0 U	
Carbon disulfide	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	
Carbon Tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Chloromethane	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Dibromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,2-Dichloroethene (total)	1.0 U	1.0 U	--	--	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,2-Dichloroethene	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.28 J	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
trans-1,2-Dichloroethene	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U	
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
2-Hexanone	50 U	10 U	10 UJ	10 UJ	10 U	2.0 U	R	10 U	10 U	10 U	2.0 U	50 U	10 U	10 U	10 U	2.0 U	
4-Methyl-2-pentanone	50 U	10 U	10 U	10 U	10 U	2.0 U	50 U	10 U	5.0 U	10 U	2.0 U	50 U	10 U	5.0 U	10 U	2.0 U	
Methylene Chloride	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Vinyl Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Xylenes (total)	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	5.8	4.3	4.4	4.2	1.0 U	1.0 U	0.34 J	0.48 J	1.0 U

See Notes, Page 5.

TABLE 3

VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

General Notes:

All concentrations in micrograms per liter ( $\mu\text{g/L}$ ); equivalent to parts per billion (ppb), unless otherwise noted.

All detections are shown in bold.

Data from the 2003 sampling event are shaded.

-- = Sample was not analyzed for the listed constituent.

Locat MW, X = Permanent monitoring wells.

WT = Water table monitoring wells.

S1 = Well screened at top of sand unit; increasing numbers indicate increased depth within the sand unit (e.g., S2, S3, S4).

Samp FS = Primary field sample, collected by BBL.

DUP = Duplicate field sample, collected by BBL.

Data Qualifiers:

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

R = The sample results were rejected.

U = The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.

TABLE 4

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	MW-117WT							MW-117S1						
	6/20/95 FS	7/14/95 FS	6/11/96 FS	5/19/00 FS	6/18/01 FS	6/26/02 FS	6/19/03 FS	6/20/95 FS	7/14/95 FS	6/11/96 FS	5/19/00 FS	6/18/01 FS	6/26/02 FS	6/19/03 FS
<b>TAL Inorganics (ug/L)</b>														
Aluminum	350	--	100 U	100 U	100 U	100 U	100 U	117	--	120	100 U	100 U	100 U	100 U
Antimony	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic	1.3	--	--	10 U	10 U	2.2 B	10 U	1.2	--	--	10 U	10 U	10 U	10
Barium	2,210	--	2,520	3,580	3,170	2,970	3,250	1,410	--	1,670	1,720	1,740	1,740	1,800
Beryllium	5.0 U	--	--	4.0 U	4.0 U	4.0 U	4.0 U	5.0 U	--	--	4.0 U	4.0 U	4.0 U	4.0 U
Cadmium	0.20 U	--	--	1.0 U	1.8	1.0 U	3.8	0.20 U	--	--	1.0 U	1.0 U	1.0 U	1.0 U
Calcium	1,340,000 J	--	--	1,200,000	1,090,000	1,110,000	1,160,000	133,000 J	--	--	163,000	157,000	156,000	171,000
Chromium	50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	50 U	--	--	40 U	40 U	40 U	40 U	50 U	--	--	40 U	40 U	40 U	40 U
Copper	25 U	--	--	25 U	25 U	25 U	25 U	25 U	--	--	25 U	25 U	25 U	25 U
Iron	100,000	--	124,000	149,000	137,000	128,000	139,000	5,780	--	8,260	8,730	9,120	8,650	9,160
Lead	3.0 UJ	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 UJ	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	485,000	--	545,000	593,000	550,000	518,000	584,000	42,500	--	50,400	52,100	51,700	49,400	52,900
Manganese	5,130	--	5,190	5,510	4,900	4,850	5,480	347	--	330	341	340	326	354
Mercury	0.20 UJ	--	--	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	--	--	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ
Nickel	50 U	--	50 U	23.3 B	18.2 B	18 B	20 B	50 U	--	50 U	40 U	40 U	40 U	40 U
Potassium	6,960	--	--	41,300	39,800 J	40,500 J	47,000	5,000 U	--	--	2,330 B	2,270 BJ	2,490 BJ	2,540 B
Selenium	5.0 UJ	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	--	--	5.0 U	5.0 U	5.0 U	5.0 U
Silver	0.50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	0.50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	463,000	--	499,000	590,000	559,000	539,000	628,000	101,000	--	108,000	120,000	121,000	114,000	118,000
Thallium	4.0 UJ	--	--	17.9	10 U	8.9 BJ	10 U	2.0 UJ	--	--	5.0 B	10 U	10 UJ	10 U
Vanadium	20 U	--	--	50 U	50 U	50 U	50 U	20 U	--	--	50 U	50 U	50 U	50
Zinc	R	--	20 U	20 U	20 U	20 U	20 U	R	--	20 U	20 U	12.3 B	20 U	20
Cyanide, Total	5.0 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U
<b>Landfill Indicator Parameters</b>														
pH (Standard Units)	--	--	--	6.4	7.1	7.2	7.1	--	--	--	7.0	8.0	8.0	8.1
Total Dissolved Solids (mg/L)	--	11,000	--	11,000	13,000	11,000 J	13,000	--	990	--	840	920	970	1,000
Chloride (mg/L)	--	4,600	--	4,930 J	5,380	5,540	4,680	--	230	--	284 J	269	270	264
Sulfate (mg/L)	--	--	--	25 UG	0.23 B	0.32 B	0.34 BJG	--	--	--	2.0 UG	0.26 B	0.14 B	1.0 UJ
Nitrate (as N) (mg/L)	--	--	--	12.5 UG	0.50 U	1.0 U	1.0 U	--	--	--	1.0 UG	0.50 U	0.50 U	0.50 U
Nitrite (as N) (mg/L)	--	--	--	12.5 UG	R	25 U	25 U	--	--	--	1.0 UG	R	0.50 U	0.14 BJ
Nitrogen, Ammonia (mg/L)	--	30 J	--	46	63	63	63	--	1 UJ	--	5.1	11	7.1	7.4

See Notes, Page 8.

TABLE 4

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	MW-118WT									
	6/20/95 FS	7/14/95 FS	6/11/96 FS	5/17/00 FS	6/19/01 FS	6/19/01 DUP	6/27/02 FS	6/27/02 DUP	6/19/03 FS	6/19/03 DUP
<b>TAL Inorganics (ug/L)</b>										
Aluminum	563	--	100 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Antimony	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic	1.0	--	--	10 U	5.1 B	7.4 B	3.9 B	7.9 B	10 U	10 U
Barium	1,970	--	2,420	7,970	10,700	11,200	8,650	9,200	5,620	5,420
Beryllium	5.0 U	--	--	4.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Cadmium	0.20 U	--	--	1.5	8.3	8.6	2.5	2.9	6.6	6
Calcium	1,950,000 J	--	--	4,890,000	5,750,000	6,040,000	4,630,000	4,880,000	2,940,000	2,840,000
Chromium	50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cobalt	50 U	--	--	40 U	40 U	40 U	40 U	40 U	40 U	40 U
Copper	25 U	--	--	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Iron	71,500	--	93,100	261,000	330,000	344,000	259,000	277,000	173,000	166,000
Lead	3.0 UJ	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	372,000	--	457,000	1,330,000	1,760,000	1,840,000	1,390,000	1,470,000	916,000	883,000
Manganese	5,460	--	5,390	8,930	7,740	8,070	6,250	6,360	4,110	4,000
Mercury	0.20 UJ	--	--	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ	0.20 UJ
Nickel	50 U	--	50 U	17.7 B	23.5 B	24.4 B	29 B	31 B	36 B	35 B
Potassium	5,000 U	--	--	16,800	30,700 J	32,400 J	40,000 J	43,400 J	37,200	35,200
Selenium	5.0 UJ	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Silver	0.50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	175,000	--	229,000	647,000	955,000	976,000	925,000	970,000	764,000	735,000
Thallium	2.0 UJ	--	--	26.8	10 U	6.5 B	19 J	7.8 BJ	10 U	10 U
Vanadium	20 U	--	--	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Zinc	R	--	22.3 U	17.8 B	20 U	20 U	20 U	20 U	20 U	20 U
Cyanide, Total	5.0 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
<b>Landfill Indicator Parameters</b>										
pH (Standard Units)	--	--	--	6.2	6.9	7.0	6.8	6.8	7.7	7
Total Dissolved Solids (mg/L)	--	1,400	--	37,000	34,000	36,000	42,000	41,000	23,000	24,000
Chloride (mg/L)	--	3,700	--	16,100	21,800	18,800	16,900	16,500	9,740	9,470
Sulfate (mg/L)	--	--	5.0 U	100 UG	100 U	0.63 B	0.59 B	0.56 B	0.70 BJG	1.2 BJG
Nitrate (as N) (mg/L)	--	--	0.08 U	50 UG	50 U	0.50 U	2.5 U	2.5 U	2.0 U	2.0 U
Nitrite (as N) (mg/L)	--	--	0.07 U	50 UG	R	R	2.5 U	2.5 U	50 U	50 U
Nitrogen, Ammonia (mg/L)	--	10 J	--	26	92	76	82	88	66	65

See Notes, Page 8.

TABLE 4

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	MW-118S1								MW-128WT					
	6/20/95 FS	7/14/95 FS	6/11/96 FS	5/17/00 FS	5/17/00 DUP	6/19/01 FS	6/27/02 FS	6/19/03 FS	7/26/95 FS	3/12/97 FS	5/19/00 FS	6/20/01 FS	6/26/02 FS	6/18/03 FS
<b>TAL Inorganics (ug/L)</b>														
Aluminum	219	--	100 U	100 U	100 U	100 U	100 U	100 U	448	--	100 U	100 U	100 U	100 U
Antimony	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Arsenic	1.8	--	--	10 U	10 U	10 U	10 U	10 U	3.7	--	5.1 B	5.9 B	5.8 B	3.7 B
Barium	482	--	532	593	612	645	622	713	628	--	142	219	244	223
Beryllium	5.0 U	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5.0 U	--	4.0 U	4.0 U	4.0 U	4.0 U
Cadmium	0.20 U	--	--	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 UJ	--	1.0 U	1.0 U	1.0 U	0.35 B
Calcium	120,000 J	--	--	156,000	156,000	151,000	151,000	172,000	360,000	--	217,000	186,000	152,000	169,000
Chromium	50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	--	1.7 B	2.0 B	2.7 B	2.4 B
Cobalt	50 U	--	--	40 U	40 U	40 U	40 U	40 U	50 U	--	1.7 B	7.5 B	9.3 B	7.8 B
Copper	25 U	--	--	25 U	25 U	25 U	25 U	25 U	25 U	--	25 U	25 U	25 U	25 U
Iron	2,500	--	5,390	6,090	6,150	7,070	6,070	7,570	24,500	--	20,100	19,400	14,900	16,700
Lead	3.0 UJ	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	38,100	--	47,000	49,300	49,800	49,400	47,900	53,700	115,000	--	54,600	61,500	68,300	80,900
Manganese	347	--	383	420	415	428	408	476	918	--	2,170	1,520	828	760
Mercury	0.20 UJ	--	--	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ	0.20 U	--	0.20 U	0.20 UJ	0.20 UJ	0.20 U
Nickel	50 U	--	50 U	40 U	40 U	40 U	40 U	40 U	50 U	--	14.5 B	25.8 B	32 B	25 B
Potassium	5,000 U	--	--	2,170 B	2,180 B	2,120 BJ	2,380 BJ	2,510 B	5,420	--	33,900	63,900 J	89,200 J	86,000
Selenium	5.0 UJ	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Silver	0.50 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.50 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	97,300	--	112,000	121,000	122,000	117,000	112,000	118,000	720,000	--	331,000	509,000	556,000	504,000
Thallium	2.0 UJ	--	--	8.1 B	5.4 B	10 U	10 UJ	10 U	8.0 UJ*	--	6.9 B	10 U	10 UJ	10 U
Vanadium	20 U	--	--	50 U	50 U	50 U	50 U	50 U	20 U	--	50 U	50 U	50 U	50 U
Zinc	R	--	35.8 U	20 U	20 U	20 U	20 U	20 U	31	--	20 U	20 U	20 U	20 U
Cyanide, Total	5.0 U	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	8.3	--	5.0 U	5.0 U	2.1 B	5.0 U
<b>Landfill Indicator Parameters</b>														
pH (Standard Units)	--	--	--	7.0	7.0	8.0	7.1	8.1	--	--	7.2	7.9	8.0	8.1
Total Dissolved Solids (mg/L)	--	8,000	--	930	940	910	1,200	1,000	--	--	1,800	2,100	2,700	2,100
Chloride (mg/L)	--	260	--	284	281	272	286	264	--	--	775 J	995	1,280	1,000
Sulfate (mg/L)	--	--	5.0 U	4.0 UG	4.0 UG	0.15 B	1.6	1.0 UJ	--	5.0 U	101	105	59.2	174 J
Nitrate (as N) (mg/L)	--	--	0.08 U	2.0 UG	2.0 UG	0.50 U	0.50 U	0.50 U	--	0.14	2.5 UG	0.50 U	0.50 U	0.50 U
Nitrite (as N) (mg/L)	--	--	0.07 U	2.0 UG	2.0 UG	R	0.50 U	0.50 U	--	0.07 U	2.5 UG	R	10 U	0.50 U
Nitrogen, Ammonia (mg/L)	--	4.8 J	--	5.9	6.2	8.4	7.3	6.2	--	--	13	66	97	100

See Notes, Page 8.

TABLE 4

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	MW-128S1						X-1A							
	7/26/95 FS	3/12/97 FS	5/19/00 FS	6/20/01 FS	6/26/02 FS	6/18/03 FS	7/29/95 FS	6/10/96 FS	3/8/97 FS	5/23/00 FS	6/20/01 FS	6/25/02 FS	6/17/03 FS	6/18/03 FS
<b>TAL Inorganics (ug/L)</b>														
Aluminum	502	--	100 U	100 U	100 U	100 U	100 U	100 U	--	100 U	100 U	100 U	--	100 U
Antimony	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	--	5.0 U
Arsenic	17.3	--	18.1	19	23	2.5 B	3.6	--	--	3.5 B	4.4 B	3.1 B	--	10 U
Barium	936	--	820	791	727	354	535	515	--	475	599	304	--	287
Beryllium	5.0 U	--	4.0 U	4.0 U	4.0 U	4.0 U	5.0 U	--	--	4.0 U	4.0 U	4.0 U	--	4.0 U
Cadmium	0.20 UJ	--	1.0 U	1.0 U	1.0 U	1.0 U	0.20 UJ	--	--	1.0 U	1.0 U	1.0 U	--	0.69 B
Calcium	442,000	--	398,000	367,000	365,000	304,000	175,000	--	--	168,000	172,000	138,000	--	156,000
Chromium	50 U	--	4.2 B	1.9 B	2.6 B	5.0 U	50 U	--	--	3.2 B	5.4	2.4 B	--	5.0 U
Cobalt	50 U	--	4.3 B	4.6 B	5.0 B	40 U	50 U	--	--	40 U	4.9 B	2.6 B	--	40 U
Copper	25 U	--	25 U	25 U	25 U	25 U	25 U	--	--	25 U	25 U	25 U	--	25 U
Iron	31,900	--	22,000	20,400	22,900	100 U	7,120	30,000 J	--	18,500 J	16,000	14,200	--	38,900
Lead	3.0 U	--	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U	3.0 U	--	3.0 U
Magnesium	170,000	--	145,000	136,000	138,000	8,300 U	110,000	102,000	--	111,000	106,000	80,600	--	98,000
Manganese	437	--	339	377	342	20 U	666	1,210 J	--	835	703	646	--	1,090
Mercury	0.20 U	--	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 UJ	--	--	0.20 U	0.20 UJ	0.20 UJ	--	0.20 U
Nickel	50 U	--	25.6 B	24 B	19 B	25 B	50 U	50 U	--	17.2 B	28.1 B	19 B	--	17 B
Potassium	5,000 U	--	7,750	8,760 J	5,900 J	17,700	235,000	--	--	163,000	192,000 J	118,000 J	--	98,100
Selenium	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	--	5.0 U	5.0 U	5.0 U	--	5.0 U
Silver	0.50 U	--	5.0 U	5.0 U	5.0 U	5.0 U	0.50 U	--	--	5.0 U	5.0 U	5.0 U	--	5.0 U
Sodium	582,000	--	515,000	528,000	498,000	373,000	580,000	389,000	--	339,000	464,000	353,000	--	311,000
Thallium	8.0 UJ*	--	6.2 B	6.1 B	6.5 BJ	10 U	8.0 UJ*	--	--	10 U	5.7 B	7.3 BJ	--	10 U
Vanadium	20 U	--	50 U	3.3 B	3.1 B	50 U	20 U	--	--	50 U	50 U	50 U	--	50 U
Zinc	24	--	20 U	20 U	20 U	20 U	20 U	20 U	--	20 U	20 U	20 U	--	20 U
Cyanide, Total	8.8	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	--	4.5 B	4.8 B	3.5 B	5.0 U	--
<b>Landfill Indicator Parameters</b>														
pH (Standard Units)	--	--	6.7	7.7	7.6	9.8	--	--	--	7.0	7.8	7.3	--	7.9
Total Dissolved Solids (mg/L)	--	--	3,000	3,100	3,100	2,700	--	--	--	2,300	2,100	2,000	--	1,700
Chloride (mg/L)	--	--	1,320 J	1,230	1,460	1,090	--	--	--	505	893	714 J	--	593
Sulfate (mg/L)	--	5.0 U	3.8 BG	5.0	3.0	22.7 J	--	5.0 U	5.0 U	528	5.1	0.18 B	--	95.4 J
Nitrate (as N) (mg/L)	--	0.08 U	5.0 UG	0.50 U	0.50 U	0.50 U	--	0.08 U	0.08 U	2.5 U	0.50 U	0.50 U	--	0.50 U
Nitrite (as N) (mg/L)	--	0.07 U	5.0 UG	R	10 U	0.50 U	--	0.07 U	0.07 U	2.5 U	R	10 U	--	0.50 U
Nitrogen, Ammonia (mg/L)	--	--	3.3	7.4	7.2	6.9	--	--	--	160	210	94	74	--

See Notes, Page 8.

TABLE 4

TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	X-1B								X-1CR2				X-2A			
	7/29/95 FS	6/10/96 FS	3/9/97 FS	5/24/00 FS	6/20/01 FS	6/25/02 FS	6/17/03 FS	6/18/03 FS	6/26/02 FS	6/19/03 FS	7/15/95 FS	5/19/00 FS	6/18/01 FS	6/26/02 FS	6/17/03 FS	6/18/03 FS
<b>TAL Inorganics (ug/L)</b>																
Aluminum	100 U	118 U	--	100 U	100 U	100 U	--	100 U	100 U	84,400	111	100 U	100 U	100 U	--	100 U
Antimony	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Arsenic	3.1	--	--	10 U	4.3 B	3.5 B	--	10 U	3.7 B	27	1.0 U	3.4 B	10 U	2.2 B	--	10 U
Barium	887	870	--	770	644	706	--	525	34 B	534 J	365	410	432	358	--	376
Beryllium	5.0 U	--	--	4.0 U	4.0 U	4.0 U	--	4.0 U	4.0 U	3.8 B	5.0 U	4.0 U	4.0 U	4.0 U	--	4.0 U
Cadmium	0.38 J	--	--	1.0 U	1.0 U	1.0 U	--	0.33 B	1.0 U	3.9	0.20 U	1.0 U	1.0 U	1.0 U	--	1.0 U
Calcium	371,000	--	--	380,000	352,000	357,000	--	309,000	68,100	554,000	76,400	98,200	103,000	83,800	--	92,800
Chromium	50 U	--	--	3.8 B	2.2 B	3.1 B	--	1.9 B	5.0 U	180	50 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Cobalt	50 U	--	--	6.1 B	6.5 B	5.6 B	--	4.0 B	40 U	51	50 U	40 U	1.3 B	0.83 B	--	40 U
Copper	25 U	--	--	25 U	25 U	25 U	--	25 U	25 U	112	25 U	25 U	25 U	25 U	--	25 U
Iron	22,900	21,200 J	--	22,100 J	22,400	20,300	--	19,200	100 U	98,000	254 J	429	606	577	--	100 U
Lead	3.0 U	3.0 U	--	3.0 U	3.0 U	3.0 U	--	3.0 U	3.0 U	58	3.0 U	3.0 U	3.0 U	3.0 U	--	3.0 U
Magnesium	124,000	121,000	--	118,000	116,000	113,000	--	105,000	33,300	211,000 J	23,300	40,400	43,500	34,600	--	33,600
Manganese	1,030	838 J	--	795	935	842	--	1,290	74	2,000	517	569	625	518	--	579
Mercury	0.20 UJ	--	--	0.20 U	0.20 UJ	0.20 UJ	--	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 UJ	0.20 UJ	--	0.20 U
Nickel	50 U	50 U	--	29.6 B	32.4	30 B	--	17 B	40 U	131	50 U	13.4 B	10.8 B	9.4 B	--	6.9 B
Potassium	53,700	--	--	40,500	37,800 J	34,700 J	--	32,400	3,310 BJ	28,800	19,900	33,500	35,500 J	33,300 J	--	39,200
Selenium	5.0 U	--	--	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Silver	0.50 U	--	--	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	0.50 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Sodium	758,000	831,000	--	858,000	793,000	777,000	--	537,000	125,000	126,000	275,000	378,000	429,000	426,000	--	411,000
Thallium	4.0 UJ*	--	--	6.6 B	6.4 B	8.2 BJ	--	10 U	10 UJ	10 U	2.0 UJ	5.3 B	5.9 B	10 UJ	--	10 U
Vanadium	20 U	--	--	2.4 B	1.7 B	2.0 B	--	50 U	50 U	169	20 U	50 U	50 U	50 U	--	50 U
Zinc	143	42.5 U	--	20 U	32.5	21	--	15 B	20 U	534	R	54.6	12.7 B	20 U	--	74
Cyanide, Total	9.1	--	--	5.5	5.0	4.7 B	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.0 B	2.0 B	--
<b>Landfill Indicator Parameters</b>																
pH (Standard Units)	--	--	--	6.6	7.4	6.9	--	7.8	8.0	7.9	--	7.6	7.8	8.0	--	8
Total Dissolved Solids (mg/L)	--	--	--	2,600	3,000	3,700	--	2,500	800	380	--	1,800	1,900	2,000	--	1,800
Chloride (mg/L)	--	--	--	1,440	1,280	1,410 J	--	817	162	163	--	884 J	982	1,060	--	913
Sulfate (mg/L)	--	5.0 U	5.0 U	51.2	31.7	30.2	--	217 J	251	260 J	--	24	1.0 U	0.42 B	--	0.32 BJ
Nitrate (as N) (mg/L)	--	0.08 U	0.08 U	10 U	0.50 U	0.50 U	--	0.50 U	0.046 B	0.13 B	--	2.5 UG	0.50 U	0.50 U	--	0.50 U
Nitrite (as N) (mg/L)	--	0.07 U	0.07 U	10 U	R	0.53 B	--	0.50 U	0.50 U	0.17 BJ	--	2.5 UG	R	0.50 U	--	0.50 U
Nitrogen, Ammonia (mg/L)	--	--	--	24	59	31	7	--	0.6	0.4	--	5.6	6.6	7.8	9.4	--

See Notes, Page 8.

TABLE 4

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	X-10A		X-10AR2				X-16A					
	6/13/96 FS	5/24/00 FS	11/27/01 FS	11/27/01 DUP	6/26/02 FS	6/19/03 FS	7/27/95 FS	5/24/00 FS	6/19/01 FS	6/25/02 FS	6/17/03 FS	6/18/03 FS
<b>TAL Inorganics (ug/L)</b>												
Aluminum	100 U	100 U	100 U	100 U	100 U	100 U	1,110	100 U	100 U	100 U	--	100 U
Antimony	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Arsenic	5.0 U	10 U	10 U	10 U	2.2 B	10 U	1.0 U	10 U	10 U	10 U	--	10 U
Barium	200 U	44.4 B	62 B	57 B	51 B	100 U	200 U	216	225	227	--	234
Beryllium	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	5.0 U	4.0 U	4.0 U	4.0 U	--	4.0 U
Cadmium	0.50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U	1.0 U	1.0 U	--	0.34 B
Calcium	117,000	209,000	248,000	241,000	202,000	211,000	362,000	397,000	377,000	373,000	--	378,000
Chromium	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	1.5 B	5.0 U	5.0 U	--	5.0 U
Cobalt	50 U	40 U	10 U	10 U	40 U	40 U	50 U	40 U	40 U	40 U	--	40 U
Copper	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	--	25 U
Iron	100 UJ	100 UJ	4,740 J	1,080 J	15,600	13,500	4,370	6,850 J	9,020	8,800	--	12,700
Lead	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	--	3.0 U
Magnesium	22,400	48,700	74,900 J	73,100 J	55,700	59,000	126,000	136,000	136,000	133,000	--	140,000
Manganese	22.5	152	2,810	2,710	2,630	2,470	807	966	964	1,050	--	1,020
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 UJ	0.20 UJ	--	0.20 U
Nickel	50 U	40 U	40 U	40 U	40 U	40 U	50 U	9.5 B	40 U	40 U	--	40 U
Potassium	9,450	8,910	14,200	13,700	12,000 J	11,000	5,000 U	1,920 B	1,530 BJ	1,790 BJ	--	1,660 B
Selenium	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Silver	0.50 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.50 U	5.0 U	5.0 U	5.0 U	--	5.0 U
Sodium	24,000	33,700	67,900	66,100	48,300	44,000	86,200	124,000	124,000	119,000	--	129,000
Thallium	2.0 UJ	7.1 B	10 U	10 U	5.8 BJ	10 U	2.0 UJ	7.6 B	6.6 B	5.6 BJ	--	10 U
Vanadium	20 U	50 U	20 U	20 U	50 U	50 U	20 U	50 U	50 U	50 U	--	50 U
Zinc	86.8 U	105	17 B	20 U	18 B	28	50	20 U	20 U	20 U	--	20 U
Cyanide, Total	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.8	5.0 U	5.0 U	--
<b>Landfill Indicator Parameters</b>												
pH (Standard Units)	--	7.0	8.1	--	7.9	8.1	--	6.7	7.9	7.3	--	7.9
Total Dissolved Solids (mg/L)	--	910	1,300	1,300	1,100	1,100	--	1,900	1,900	2,100	--	2,000
Chloride (mg/L)	--	58.7	47.1	--	20.9	19.7	--	420	428	462J	--	530
Sulfate (mg/L)	--	430	638	--	492	398 J	--	601	602	568	--	526 J
Nitrate (as N) (mg/L)	--	0.50 U	0.10 UJ	--	0.50 U	0.50 U	--	5.0 U	0.50 U	0.50 U	--	0.50 U
Nitrite (as N) (mg/L)	--	0.50 U	0.10 UJ	--	0.50 U	0.50 U	--	5.0 U	R	0.50 U	--	0.50 U
Nitrogen, Ammonia (mg/L)	--	0.20 U	1.7	--	1.1	1.0	--	0.40	0.8	0.7	0.7	--

See Notes, Page 8.

TABLE 4

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

Location ID Sample Date Sample Type	X-16B						
	7/28/95 FS	5/19/00 FS	6/20/01 FS	6/26/02 FS	6/27/02 FS	6/17/03 FS	6/18/03 FS
<b>TAL Inorganics (ug/L)</b>							
Aluminum	--	122	100 U	100 U	--	--	100 U
Antimony	--	5.0 U	5.0 U	5.0 U	--	--	5.0 U
Arsenic	--	10 U	10 U	2.5 B	--	--	10 U
Barium	--	35.7 B	58.7 B	28 B	--	--	100 U
Beryllium	--	4.0 U	4.0 U	4.0 U	--	--	4.0 U
Cadmium	--	0.59 B	1.0 U	1.0 U	--	--	1.0 U
Calcium	--	84,700	136,000	76,100	--	--	74,700
Chromium	--	5.0 U	5.0 U	5.0 U	--	--	5.0 U
Cobalt	--	40 U	40 U	40 U	--	--	40 U
Copper	--	25 U	25 U	25 U	--	--	25 U
Iron	--	100 U	100 U	100 U	--	--	100 U
Lead	--	3.0 U	3.0 U	3.0 U	--	--	3.0 U
Magnesium	--	60,100	61,500	51,200	--	--	51,200
Manganese	--	84.5	40.4	135	--	--	13 B
Mercury	--	0.20 U	0.20 UJ	0.20 UJ	--	--	0.13 B
Nickel	--	23.8 B	3.7 B	40 U	--	--	40 U
Potassium	--	2,620 B	2,450 BJ	2,540 BJ	--	--	2,320 B
Selenium	--	5.0 U	5.0 U	5.0 U	--	--	5.0 U
Silver	--	5.0 U	5.0 U	5.0 U	--	--	5.0 U
Sodium	--	91,000	99,400	80,200	--	--	77,800
Thallium	--	3.9 B	10 U	10 UJ	--	--	10 U
Vanadium	--	50 U	50 U	50 U	--	--	50 U
Zinc	--	14.5 B	24.4	28	--	--	20 U
Cyanide, Total	5.0 U	5.0 U	5.0 U	5.0 U	--	5.0 U	--
<b>Landfill Indicator Parameters</b>							
pH (Standard Units)	--	7.9	7.9	--	7.5	--	8.4
Total Dissolved Solids (mg/L)	--	670	920	--	660	--	640
Chloride (mg/L)	--	90.6 J	265	--	56.2	--	61.5
Sulfate (mg/L)	--	229	192	--	216	--	214 J
Nitrate (as N) (mg/L)	--	0.16 BG	0.17 B	--	0.50 U	--	0.23 B
Nitrite (as N) (mg/L)	--	1.0 UG	R	--	0.50 U	--	0.50 U
Nitrogen, Ammonia (mg/L)	--	0.20 U	19	--	0.20 U	0.20 U	--

See Notes, Page 8.

TABLE 4

TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

General Notes:

All concentrations in micrograms per liter ( $\mu\text{g/L}$ ); equivalent to parts per billion (ppb), unless otherwise noted.

All detections are shown in bold.

Data from the 2003 sampling event are shaded.

-- = Sample was not analyzed for the listed constituent.

Location ID:

MW, X = Permanent monitoring wells.

WT = Water table monitoring wells.

S1 = Well screened at top of sand unit; increasing numbers indicate increased depth within the sand unit (e.g., S2, S3, S4).

Sample Type:

FS = Primary field sample, collected by BBL.

DUP = Duplicate field sample, collected by BBL.

Data Qualifiers:

B (inorganics) = Estimated result. Result is less than the reporting limit.

G = The reporting limit is elevated due to matrix interference.

J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.

R = The sample results were rejected.

U = The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.

UJ = The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

\* = Duplicate analysis not within control limits.

# **Attachment A**

**SCHEDULE FOR GREEN POINT LANDFILL CLOSURE  
AND SUBMITTAL OF MAJOR DELIVERABLES TO THE MDEQ**

**GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT PROPERTY  
AND  
REALM, INC.  
GREEN POINT LANDFILL AND DRUM REMEDIATION AREA  
SAGINAW, MICHIGAN**

<b>Deliverable</b>	<b>Submittal and Completion Schedule ***</b>
1. Monthly Reports	Within 15 days of end of month for which report has been prepared; starting from end of first month following entry of Consent Judgment. [Ongoing]
2. Work Plan to Complete Supplemental Phase II Investigation at Former Tank #7	Work Plan was transmitted on February 9, 1996. [COMPLETED]
3. Draft RI Report	Report was submitted to MDEQ on January 21, 1999. [COMPLETED]
4. Final RI Report	Within 120 days of receiving comments from MDEQ on Draft RI Report. [COMPLETED]
5. Draft FS Report	Report was submitted to MDEQ on January 3, 2002. [COMPLETED]
6. Final FS Report	Report was submitted to MDEQ on July 29, 2003 [MDEQ reviewing]
7. Green Point Landfill Combined Conceptual Engineering and 35% Design Report (including Subgrade Plan)	Report was submitted to MDEQ on February 5, 1996. [COMPLETED]
8. Green Point Landfill 90% Design Report	Report was submitted to MDEQ on October 28, 1997. [COMPLETED]
9. Green Point Landfill Final Design Report	Report was submitted to MDEQ in January 1998. [COMPLETED]
10. Green Point Landfill Subgrade Construction	Subgrade construction was completed in July 1997. [COMPLETED]
11. Green Point Landfill Cap Construction **	Cap construction was completed January 26, 2000. [COMPLETED]
12. Green Point Landfill "As-Built" Drawings	Green Point Landfill "As-Built" drawings were transmitted to the MDEQ on January 26, 2000 as part of the Final Cover System Certification Report [COMPLETED]
13. Draft RAP	Within 7 months of MDEQ approval of Final FS Report.
14. Final RAP	Within 120 days of receiving comments from MDEQ on Draft RAP.

**Notes:**

\*\* Landfill cap construction consists of all remedial activities required in the final design for the landfill.

\*\*\* Transmittal dates refer to the dates that deliverables were sent out from preparers, and do not indicate the dates that deliverables were received by the MDEQ.

## SCHEDULE FOR SUBMITTAL OF OTHER DELIVERABLES TO THE MDEQ

**GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT PROPERTY  
AND  
REALM, INC.  
GREEN POINT LANDFILL AND DRUM REMEDIATION AREA  
SAGINAW, MICHIGAN**

Deliverable <sup>1</sup>	RI/FS Work Plan Section	Submittal and Completion Schedule <sup>3</sup>
1. Plan to determine representative background concentrations in groundwater of hazardous substances of interest.	Section 1.3	Plan was transmitted to the MDEQ on April 17, 1996. [COMPLETED]
2. Sewer Map	Section 7.6	The site sewer map was transmitted to the MDEQ on February 17, 1995. [COMPLETED]
3. Buried Utility Maps <sup>2</sup> (including updated sewer map and invert elevations of key manholes).	Section 7.4	The buried utility maps were transmitted to the MDEQ on September 4, 1998. [COMPLETED]
4. Analytical Monitoring Plan for SMI Sewer System. This plan will be based on the buried utility maps and analytical results of POTW monitoring program and other sewer samples.	Section 7.6	Plan was transmitted to the MDEQ by CRA on February 3, 1997. [COMPLETED]
5. Report presenting the results of the Perimeter Geophysical Survey.	Section 7.1	Report was transmitted to the MDEQ on June 23, 1995. [COMPLETED]
6. Letter Report summarizing results of temporary monitoring well sampling around perimeter of SMI Plant building and site, and recommendations, if appropriate, for the installation of permanent monitoring wells.	Section 7.2.1	Letter report was transmitted to the MDEQ on August 30, 1995. [COMPLETED]
7. Transmittal of summary tables of analytical data collected during six-month POTW Sampling Program to the MDEQ.	Section 7.6	Data summary tables were transmitted to the MDEQ on August 1, 1996. [COMPLETED]
8. Transmittal of historical analytical data for POTW point of compliance (CFD-02) discharge.	Section 7.6	Data summary report was transmitted to the MDEQ on December 29, 1996. [COMPLETED]
9. Report summarizing analytical results of first round of groundwater sampling. The report will propose to the MDEQ a list of site-specific constituents for future groundwater sampling activities, and will present recommendations for additional well installation, if needed, to further investigate on-site sources, the site perimeter, or off-site areas.	Sections 7.2.4 and 7.2.4.3	Report was transmitted to the MDEQ on January 22, 1996. [COMPLETED]
10. Letter Report presenting analytical results of surface soil sampling. Recommendations for additional surface soil sampling to assess potential worker exposure will also be made, if appropriate.	Section 7.5.4	Letter report was transmitted to the MDEQ on March 8, 1996. [COMPLETED]
11. Report presenting the results of the geophysical borehole logging task and recommendations for additional borings, if needed, to understand discrepancies between the geophysical data and boring logs.	Section 7.2.5	Report was transmitted to the MDEQ on January 19, 1996. [COMPLETED]
12. Transmittal of Quarterly Water Level Data.	Section 7.2.8	Transmitted to the MDEQ within the RI Report on January 21, 1999. [COMPLETED]
13. Letter Report evaluating whether buried utilities (or bedding material) may be serving as preferential pathway(s) for groundwater migration.  Report must include maps of buried utilities with an indication of where utilities or bedding materials lie below the water table.  Recommendations, if appropriate, for additional borings/monitoring wells need to be included in report.	Section 7.4	The buried utility evaluation map and summary letter were transmitted to the MDEQ on September 4, 1998. [COMPLETED]
14. Notification of MDEQ and Preparation of a Work Plan <sup>1</sup> , if needed, to address any discovered point source discharge to the Saginaw River originating on GM Property.	Section 7.4	Notification of MDEQ within 7 days of discovery, Work Plan due 30 days from date of discovery. [COMPLETED]
15. Report presenting results of Drum Remediation Area Test Pit Investigation.	Section 5.1	Report was transmitted to the MDEQ on August 31, 1995. [COMPLETED]

## SCHEDULE FOR SUBMITTAL OF OTHER DELIVERABLES TO THE MDEQ

GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT PROPERTY  
AND  
REALM, INC.  
GREEN POINT LANDFILL AND DRUM REMEDIATION AREA  
SAGINAW, MICHIGAN

Deliverable <sup>1</sup>	RI/FS Work Plan Section	Submittal and Completion Schedule <sup>3</sup>
16. <b>Soil Investigation Work Plan</b> <sup>1</sup> for Drum Remediation Area, if needed, following completion of Test Pit Investigation.	Section 7.5.2	A Sampling and Analysis Plan to allow consolidation of DRA hillock soils with the Green Point Landfill subgrade, dated August 20, 1996, was transmitted to the MDEQ. Excavation and relocation activities were completed during February 1997. <b>[COMPLETED]</b>
17. <b>Report</b> on the Previous Metal Feedstock Area, based on results of soil sampling and downgradient monitoring well groundwater results, including a work plan, if needed, to <u>install monitoring wells in this area</u> .	Section 7.5.3	Letter report dated August 9, 1996 was transmitted to the MDEQ. <b>[COMPLETED]</b>
18. <b>Plan</b> to further investigate groundwater quality north of the Drum Remediation Area.	NA	The initial investigation plan was submitted to the MDEQ on January 5, 1998. A supplemental plan was submitted to the MDEQ on May 13, 1999. A letter report was transmitted to the MDEQ on December 9, 1999. Additional investigation activities were conducted in October 2000. <b>[COMPLETED]</b>
19. <b>Letter report</b> presenting the results of supplemental surface soil sampling in the Railyard and the Unpaved Area, and recommendations for additional activities, as appropriate.	NA	The letter report was transmitted to the MDEQ on April 14, 1998. <b>[COMPLETED]</b>
20. <b>Plan</b> to collect additional soil, surface water, and sediment samples for ecological characterization.	NA	The initial investigation plan was submitted to the MDEQ on July 17, 2000. Field activities were completed in August 2000, and incorporated into the final RI Report. <b>[COMPLETED]</b>

**Notes:**

- <sup>1</sup> The requirements for certain plans are contingent upon factors specified in the RI/FS Work Plan.
- <sup>2</sup> Buried utilities include buried sewer (current and abandoned), electrical, water, natural gas, fire protection lines, and tunnels.
- <sup>3</sup> Transmittal dates refer to the dates that deliverables were sent out from preparers, and do not indicate the date that deliverables were received by the MDEQ.