

2010 ANNUAL REPORT – FINAL REPORT

**Landfill Inspection Report
REALM Coldwater Road Landfill
Flint, Michigan
MID 005 356 860**

**Motors Liquidation Company
Birmingham, Michigan**

February 2011



Landfill Inspection
REALM Coldwater Road Landfill
Flint, Michigan
MID 005 356 860

Prepared for:

Motors Liquidation Company
Birmingham, Michigan



SCOTT L. CORMIER, P.E.
VICE PRESIDENT
O'BRIEN & GERE



February 16, 2011

Mr. Richard Conforti, P.E.

Environmental Engineer
Michigan Department of Natural Resources and Environment
Waste and Hazardous Material Division
P.O. Box 30241
Lansing, Michigan 48909-7741

Re: 2011 Annual Landfill Inspection Report
Coldwater Road Landfill
Flint, Michigan

File: 14774/45042 #5

Dear Mr. Conforti:

On behalf of Motors Liquidation Company, O'Brien & Gere Engineers, Inc. (O'Brien & Gere) is pleased to present this annual Landfill Inspection Report summarizing the 2010 Quarterly Post Closure Inspections at the hazardous waste landfill for the Coldwater Road Landfill facility in Flint, Michigan. Mrs. Marianne Secrest of O'Brien & Gere performed the first quarterly inspection of the closed hazardous waste landfill on March 26, 2010. Chris Cox of O'Brien & Gere performed the second quarterly inspection on May 17, 2010 and Kevin Schneider performed the third and fourth quarterly inspections on September 14, 2010 and December 29, 2010, respectively.

Each quarterly inspection event consisted of the following activities:

- A visual inspection of the landfill cap and berms
- A visual inspection of the leachate accumulation above ground storage tank (AST)
- A visual inspection of the site access roads
- A visual inspection of the site perimeter fencing and gates
- A visual inspection of the leachate collection system
- Testing of the leachate detection alarm system
- A summary of the monthly removal of liquids from the leak detection vaults
- A visual inspection of site drainage structures.

A summary of the inspections is outlined in the following sections and copies of the quarterly inspection reports are included as Attachment A. A site location map (Figure 1), a property site plan (Figure 2), and an incident location map (Figure 3) are also included.

CAP AND BERMS

The cap and berms were visually inspected each quarter for deep root penetration, burrowing animals, soil erosion, slope failures, and ponding water in the ditch and/or washouts.

Several hundred woody-stemmed plants were removed by the root from the landfill cap between March 2010 and December 2010. The locations where woody plants were removed are too numerous to show on Figure 3.

Five animal burrows were identified between March 2010 and December 2010. Traps were set at the opening of each animal burrow that appeared to be active. After five days without animal activity, the burrows were filled using methods approved by the Michigan Department of Environmental Quality (MDEQ). Animal burrow locations are noted on Figure 3. A log of burrow activity is maintained at the landfill. The log contains information on the date that a burrow is identified, response activities, and the date the burrow is closed.

Animal burrows will be photographically documented (before and after repair), and the approximate size and configuration of the burrows will also be documented beginning in 2011. This information will be provided with the quarterly status reports for the site.

LEACHATE COLLECTION AST

The 15,000-gallon leachate collection aboveground storage tank (AST) is located in the containment/control building. No evidence of leakage was observed within the AST secondary containment area or on the associated piping during the 2010 quarterly inspections. Inspections of the AST and associated piping were also conducted each time a representative of O'Brien & Gere was on site. No evidence of leakage was observed during these inspections.

ACCESS ROADS

During the September 14, 2010 inspection along the access road located west of the landfill a low spot (1 foot wide and 2 to 3 inches deep) across the road was observed. The low spot was filled in with gravel and graded on October 18, 2010. No other problems to the access roads were observed during 2010.

SITE PERIMETER FENCING AND GATES

Damage to the site perimeter fence and/or the barbwire was noted at a number of locations during the quarterly inspections. During the September 14, 2010 inspection, three openings were observed along the west perimeter fence. During the December 29, 2010 inspection three additional openings were observed along the west perimeter fence and one opening was observed along the northeastern perimeter fence. Downed barbwire was observed at four areas along the west perimeter fence, and three areas with tree limbs laying on the fence were also observed during the December 29, 2010 inspection. The holes in the perimeter fence were repaired by the addition of new materials and grading the soil. Tree limbs were or will be removed from the fence.

LEACHATE COLLECTION SYSTEM

The leachate collection system was inspected quarterly for visible signs of damage. System components inspected include the control panels for the sumps and the leak detection vaults, as well as the visible portions of the vault piping. No evidence of damage was observed for the aboveground components of the system. Additionally, no signs of erosion/washouts were noticed in the areas around the control panels and posts.

LEACHATE DETECTION ALARM SYSTEM

The PermAlert automated leak detection alarm was tested during each quarterly inspection in accordance with Section 4 of the Post Closure Care Plan and found to be operating during the March 26, 2010, May 17, 2010, September 14, 2010 and December 29, 2010 tests. The PermAlert system requires no maintenance other than replacing the battery for the clock. The battery runs the clock up to one year when power fails.

VAULT LIQUID REMOVAL

The leak detection vaults were pumped out monthly during the year. The volumes of liquid evacuated from each cell are provided in Table 1 and were reported in the Quarterly Status Reports.

DRAINAGE INSPECTION

The perimeter of the landfill and berm, drainage trenches at the base of the landfill, the Remaining Materials Area (RMA, Figure 2), and the wetland area were inspected for potential drainage problems. During the May 17, 2010 inspection ponded water was present in the area of the catch basin located west of the wetland area, near Saginaw Street (northwest catch basin). The ponded water around the northwest catch basin was corrected during the third and fourth quarters by rotor rooting the vegetation in the storm sewer, allowing the storm water to drain properly. A new manhole was installed on the downstream end of the storm sewer to allow the completion of the rotor rooting activities during the fourth quarter. During the September 14, 2010 inspection an area of erosion was observed on the east side of the east landfill road across from Cell B. The area was filled in with fill soil on October 19, 2010.

This summary of the quarterly inspections fulfills the annual inspection reporting requirements for 2010. If you have any questions, feel free to contact either of us at (248) 477-5701.

Very truly yours,


O'BRIEN & GERE ENGINEERS, INC.



Scott L. Cormier, P.E.
Vice President

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



Clifford S. Yantz, P.G.
Technical Associate

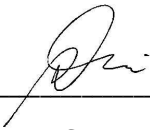
Enclosures

cc: David Favero – Motors Liquidation Company

Kevin Schneider – O'Brien & Gere

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

On Behalf of Motors Liquidation Company



Scott L. Cormier, P.E.
Agent for Motors Liquidation Company

Vice President – O'Brien & Gere Engineers, Inc.

Title

February 16, 2011 _____

Date

cc: file

TABLES

Table 1
Coldwater Road Landfill Facility
Liquid Volumes Removed from LDS Vaults in 2010

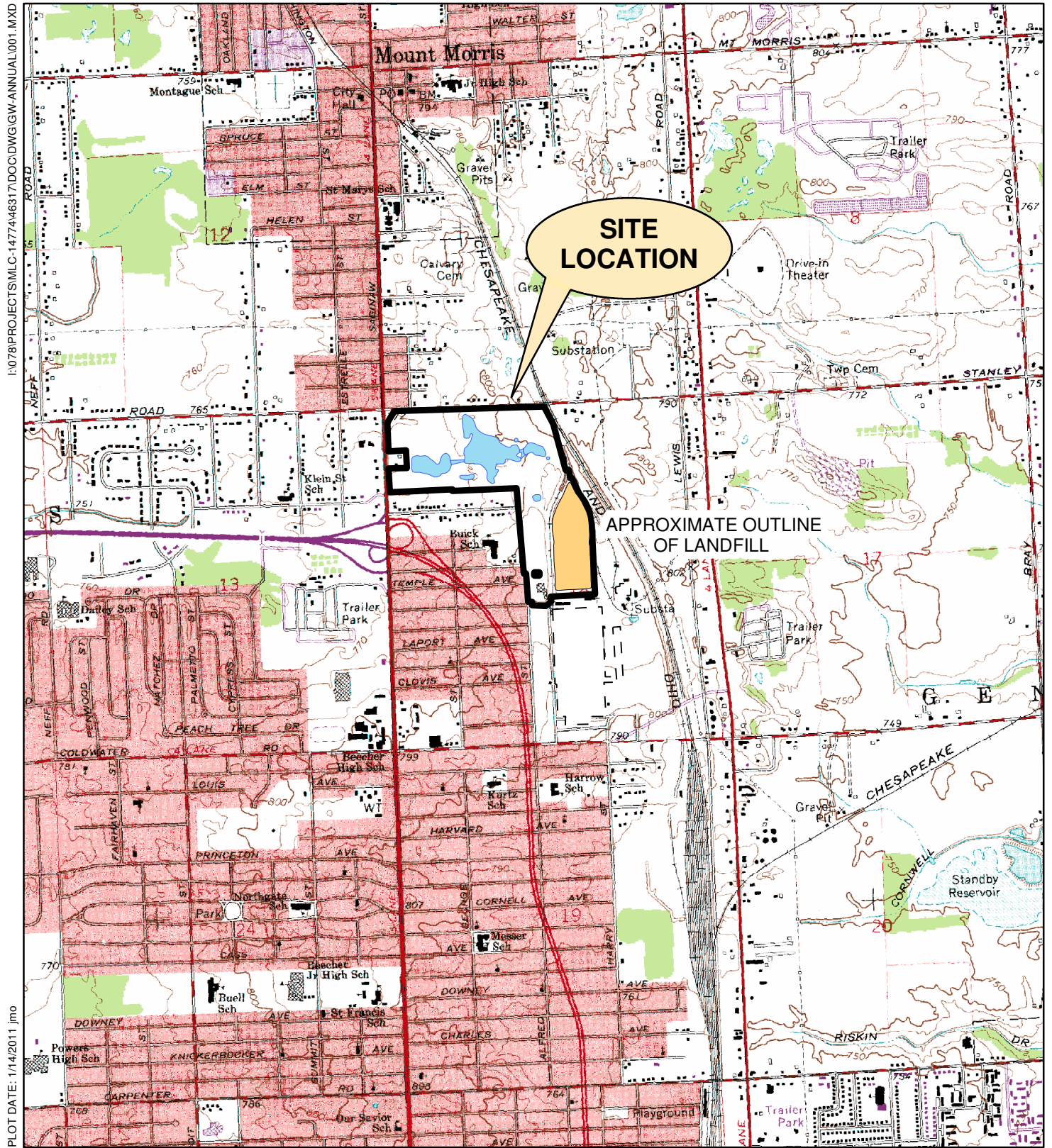
Date 2009	Vault A	Vault B	Vault C	Vault D	Vault E	Vault F	Rinse Water	TOTAL LDS GALLONS
13-Jan-10	-	40	33	-	660	21	80	834
TOTAL	-			-				834
12-Feb-10	-	39	26	-	688	16	80	849
TOTAL	-			-				849
20-Mar-10	-	43	33	-	931	15	104	1,126
TOTAL	-			-				1,126
14-Apr-10	-	36	17	-	652	9	80	794
TOTAL	-			-				794
19-May-10	-	51	21	-	847	8	80	1,007
TOTAL	-			-				1,007
28-Jun-10	-	79	42	-	768	14	80	983
TOTAL	-			-				983
28-Jul-10	-	111	111	-	421	64	-	707
TOTAL	-			-				707
18-Aug-10	-	89	94	-	216	113	-	512
TOTAL	-			-				512
24-Sep-10	-	180	217	-	170	182	-	749
TOTAL	-			-				749
18-Oct-10	-	43	51	-	117	94	-	305
TOTAL	-			-				305
10-Nov-10	-	20	32	-	79	34	-	165
TOTAL	-			-				165
23-Dec-10	-	22	-	-	12	29	-	63
TOTAL	-			-				63

Notes:

Liquid volumes in gallons

LDS - Leak Detection System

FIGURES



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PLOT DATE: 1/14/2011 jmo



MOTORS LIQUIDATION COMPANY
 COLDWATER ROAD LANDFILL FACILITY
 FLINT, MICHIGAN

SITE LOCATION MAP





JANUARY 2011

FIGURE 2



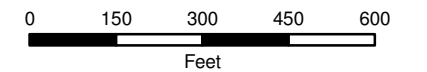
LEGEND

-  LEACHATE COLLECTION SUMP
-  ACCESS PORT FOR LEAK DETECTION VAULT



MOTORS LIQUIDATION COMPANY
 COLDWATER ROAD
 LANDFILL FACILITY
 FLINT, MICHIGAN

SITE LAYOUT



AUGUST 2009
 14774/46317-008



1078PROJECTS\MLC-14774\46317\DOC\RPT\INSP-SEC\013.MXD

PLOT DATE: 1/14/2011 jmo

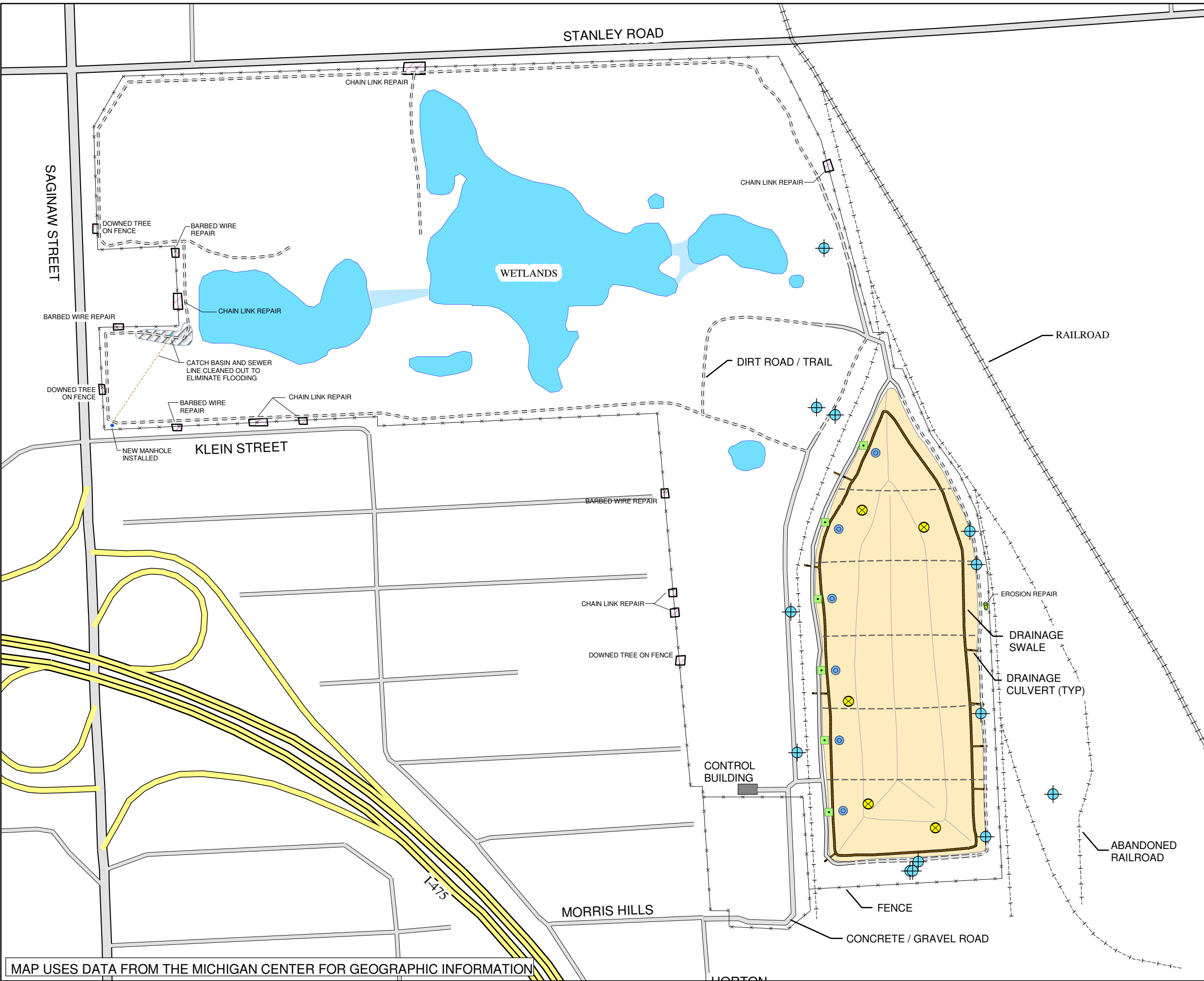









FIGURE 3

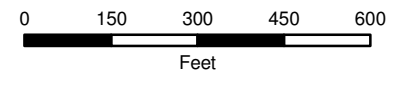


LEGEND

-  LEACHATE COLLECTION SUMP
-  ACCESS PORT FOR LEAK DETECTION VAULT
-  MONITORING WELL LOCATION
-  FENCE REPAIR
-  WASHOUT REPAIR
-  FLOODED CATCH BASIN
-  ANIMAL BURROW LOCATION

MOTORS LIQUIDATION COMPANY
 COLDWATER ROAD
 LANDFILL FACILITY
 FLINT, MICHIGAN

**2010
 INCIDENT LOCATION
 MAP**



JANUARY 2011
 14774/46317-013



MAP USES DATA FROM THE MICHIGAN CENTER FOR GEOGRAPHIC INFORMATION

ATTACHMENT A
Inspection Logs

Quarterly Post Closure Inspection Log Sheet
Coldwater Road Landfill Site – Operations and Maintenance
Flint, Michigan
Project No. 41608

Inspector's Name/Title Marianne Secret / sr operations Supervisor *
 *KBS filled in Report using Marianne Secret's Notes
 Inspector's Signature/Date/Time 3/24/10

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken
Cell A	No	No	No	No	No	No	
Cell B	No	No	No	No	No	No	
Cell C	No	No	No	No	No	No	
Cell D	No	No	No	No	No	No	
Cell E	No	No	No	No	No	No	
Cell F	No	No	No	No	No	No	
Berms	No	No	No	No	No	No	

Woody Plant Removal Activities

Summarize monthly activities:

Quarterly cap inspection completed in March 2010

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

Cracks or holes observed in tank? No Yes ___
 Liquid dripping or running from tank? No Yes ___
 Staining observed on the tank surface? No Yes ___

Piping

Is piping sagging, cracked or punctured? No Yes ___
 Liquid dripping or running from piping? No Yes ___
 Is the tank discharge valve closed and locked? No ___ Yes
 Staining observed on the piping surface? No Yes ___

Emergency Response

Are drums present in accumulation building? No Yes ___
 Are sandbags present in accumulation building? No Yes ___ * Absorbant spill Kit Present in Accumulation BLDG.
 Are shovels present in accumulation building? No ___ Yes

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Areas around building and equipment mowed?	Access roads mowed and in good condition?
A	No	No	* No	* Yes
B	No	No	* No	* Yes
C	No	No	* No	* Yes
D	No	No	* No	* Yes
E	No	No	* No	* Yes
F	No	No	* No	* Yes
Berms	No	No	* No	* Yes
			* still short from when mowed last	* Not mowed recently but still short from when mowed last

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe
Roads located approx. west of landfill	Yes	Yes	
Roads located approx. east of landfill	Yes	Yes	
Roads located approx. north of wetlands	Yes	Yes	
Roads located approx. south of wetlands	Yes	Yes	
Roads located approx. west of wetlands	No	No	Road near NW catch Basin under water
Roads located approx. east of wetlands	Yes	Yes	

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Trespassing Prohibited" and "Private Property" Signs Posted?
Fences along north property line	No	No	No	Yes
Fences along south property line	No	No	No	Yes
Fences along west property line	No	No	No	Yes
Fences along east property line	No	No	No	Yes

Leachate Collection System

Conduct the alarm test, cable test and battery test on a yearly basis as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the containment vault.
2. Dry the cable after the test.

Alarm Test		Cable Test	
Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Any damage noted to system panel boxes?
Yes	Yes	Yes	NO

Battery Test

1. Turn the power off.
2. Remove the processor card.
3. Remove the battery jumper.
4. Is the voltage across the terminals is < 3.6 VDC?
5. If yes, replace the battery.

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	If yes to any, describe issue, location, and actions taken
RMA	No	No	No	No	No	

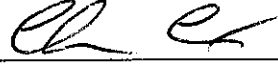
Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

Area Inspected	Drainage problem or blockage observed?	Location (note on figure)	Description	Corrective Actions
Perimeter of landfill and berm	No	No		
Drainage trenches at base of landfill	No	No		
RMA	No			
Wetlands area	Yes	NWCB	Flooded Area	Roto Root storm sewer line
Culverts around landfill	No			
Western drainage swale	No			
North landfill catch basin	No			

Quarterly Post Closure Inspection Log Sheet
 Coldwater Road Landfill Site – Operations and Maintenance
 Flint, Michigan
 Project No. 41608

Inspector's Name/Title Chris Cox Scientist

Inspector's Signature/Date  5/17/10 - 5/

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken
Cell A	No	No	No	No	No	No	
Cell B	Yes	No	No	No	No	No	animal burrow appeared to be inactive and was filled in.
Cell C	No	No	No	No	No	No	
Cell D	No	No	No	No	No	No	
Cell E	No	No	No	No	No	No	
Cell F	No	No	No	No	No	No	
Berms	No	No	No	No	No	No	

Woody Plant Removal Activities

Summarize monthly activities:

Quarterly cap inspection was completed through
A total of trees were removed.

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

- Cracks or holes observed in tank? No Yes ___
- Liquid dripping or running from tank? No Yes ___
- Staining observed on the tank surface? No Yes ___

Piping

- Is piping sagging, cracked or punctured? No Yes ___
- Liquid dripping or running from piping? No Yes ___
- Is the tank discharge valve closed and locked? No ___ Yes
- Staining observed on the piping surface? No Yes ___

Emergency Response

- Are drums present in accumulation building? No Yes ___
- Are sandbags present in accumulation building? No Yes ___ * Spill Kit present
- Are shovels present in accumulation building? No ___ Yes

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Areas around building and equipment mowed?	Access roads mowed and in good condition?
A	No	No	No	No
B	No	No	No	No
C	No	No	No	No
D	No	No	No	No
E	No	No	No	No
F	No	No	No	No
Drums	No	No	No	No
				Needs to be Mowed

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe
Roads located approx. west of landfill	Yes	Yes	
Roads located approx. east of landfill	Yes	Yes	
Roads located approx. north of wetlands	Yes	Yes	
Roads located approx. south of wetlands	Yes	Yes	
Roads located approx. west of wetlands	Yes	Yes	
Roads located approx. east of wetlands	Yes	Yes	

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Trespassing Prohibited" and "Private Property" Signs Posted?
Fences along north property line	No	No	No	Yes
Fences along south property line	No	No	No	Yes
Fences along west property line	No	No	No	Yes
Fences along east property line	No	No	No	Yes
Roads located approx. west of wetlands	No	No		
Roads located approx. east of wetlands	No			

Leachate Collection System

Conduct the alarm test, cable test, and battery tests as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the pull ports.
2. Dry the cable after the test.

Battery Test

1. Turn the power off
2. Remove the processor card
3. Remove the battery jumper
4. If the voltage across the terminals is <3.6 VDC, replace the battery.

Repeat each test for each cell.

Cell	Alarm Test		Cable Test	Battery Test
	Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Was the voltage across the terminal <3.6 VDC?
A	Yes	Yes	Yes	No
B	/	/	/	/
C	/	/	/	/
D	/	/	/	/
E	/	/	/	/
F	/	/	/	/
G	/	/	/	/

Secondary Containment

Check the sumps for the presence of liquids by extending pumps down the riser pipes. Check for presence of end caps on risers when pumping is complete.

Cell	Liquids present?	Approximate volume of liquid removed (gal.)	Obstructions in riser pipes?	End caps present on risers?
A	Yes	See Monthly	No	Yes
B	Yes		No	Yes
C	Yes		No	Yes
D	Yes		No	Yes
E	Yes		No	Yes
F	Yes		No	Yes
G				

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Woody plants present?	If yes to any, describe issue, location, and actions taken
RMA	No	No	No	No	No	Woody plants present?	

Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

Area Inspected	Drainage problem or blockage observed?	Location (note on figure)	Description	Corrective Actions
Perimeter of landfill and berm	No			
Drainage trenches at base of landfill	No			
RMA	No			
Wetlands area	Yes	NW CB	flooded area	
Culverts around landfill	No			
Western drainage swale	No			
North landfill catch basin	No			

Quarterly Post Closure Inspection Log Sheet
Coldwater Road Landfill Site – Operations and Maintenance
Flint, Michigan
Project No. 39196

Inspector's Name/Title Kevin Schneider Staff Scientist

Inspector's Signature/Date/Time *K. Schneider* 9/14/10

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken
Cell A	No	No	No	No	No	No	
Cell B	Yes	No	No	No	No	No	inactive burrow
Cell C	No	No	No	No	No	No	
Cell D	Yes	No	No	No	No	No	inactive burrow
Cell E	No	No	No	No	No	No	
Cell F	Yes	No	No	No	No	No	set trap on animal burrow
Berms	No	No	No	No	No	No	

Woody Plant Removal Activities

Summarize monthly activities:

woody plants removed earlier in quarter

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

- Cracks or holes observed in tank? No Yes ___
- Liquid dripping or running from tank? No Yes ___
- Staining observed on the tank surface? No Yes ___

Piping

- Is piping sagging, cracked or punctured? No Yes ___
- Liquid dripping or running from piping? No Yes ___
- Is the tank discharge valve closed and locked? No Yes *KBS*
- Staining observed on the piping surface? No Yes ___

Emergency Response

- Are drums present in accumulation building? No Yes ___
- Are sandbags present in accumulation building? No Yes ___ *Spill kit present*
- Are shovels present in accumulation building? No ___ Yes

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Areas around building and equipment mowed?	Access roads mowed and in good condition?
A	No	No	No	No
B	No	No	No	No
C	No	No	No	No
D	No	No	No	No
E	No	No	No	No
F	No	No	No	No
Berms	No	No	No	No
			No	No

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe
Roads located approx. west of landfill	No	Yes	low spot in road near cell E
Roads located approx. east of landfill	Yes	Yes	
Roads located approx. north of wetlands	Yes	Yes	
Roads located approx. south of wetlands	Yes	Yes	
Roads located approx. west of wetlands	Yes	Yes	
Roads located approx. east of wetlands	Yes	Yes	

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Trespassing Prohibited" and "Private Property" Signs Posted?
Fences along north property line	NO	NO	NO	Yes
Fences along south property line	NO	NO	NO	Yes
Fences along west property line	Yes 3 holes in fence	NO	NO	Yes
Fences along east property line	NO	NO	NO	Yes

Leachate Collection System

Conduct the alarm test, cable test and battery test on a yearly basis as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the containment vault.
2. Dry the cable after the test.

Alarm Test		Cable Test	
Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Any damage noted to system panel boxes?
Yes	Yes	Yes	No

Battery Test

1. Turn the power off.
2. Remove the processor card.
3. Remove the battery jumper.
4. Is the voltage across the terminals is < 3.6 VDC?
5. If yes, replace the battery.

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	If yes to any, describe issue, location, and actions taken
RMA	No	No	No	No	No	

Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

Area Inspected	Drainage problem or blockage observed?	Location (note on figure)	Description	Corrective Actions
Perimeter of landfill and berm	No			
Drainage trenches at base of landfill	No			
RMA	No			
Wetlands area	No			
Culverts around landfill	Minor vegetation *see map	around landfill	Patches of grass in some areas	
Western drainage swale	Vegetation in swale	Patches of grass around landfill see map		
North landfill catch basin	No			

Quarterly Post Closure Inspection Log Sheet
Coldwater Road Landfill Site – Operations and Maintenance
Flint, Michigan
Project No. 39196

Inspector's Name/Title Kevin Schneider Staff Scientist

Inspector's Signature/Date/Time [Signature] 12/29/10

Cap and Berm

Inspect the landfill cap and berms for burrowing animals, soil erosion, slope failures, ponding, washouts, and liner damage/exposure. Indicate the presence or absence of each item. Note identified issues on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	Liner damage or exposure?	If yes to any, describe issue, location, and actions taken
Cell A	No	No	No	No	No	No	
Cell B	No	No	No	No	No	No	
Cell C	No	No	No	No	No	No	
Cell D	No	No	No	No	No	No	
Cell E	No	No	No	No	No	No	
Cell F	No	No	No	No	No	No	
Berms	No	No	No	No	No	No	

Woody Plant Removal Activities

Summarize monthly activities:

Quarterly cap inspection completed in October 2010

Leachate Tank Storage

Inspect for evidence of leakage, and presence of drums, sandbags, shovels at each leachate tank storage location.

Tank

- Cracks or holes observed in tank? No Yes
- Liquid dripping or running from tank? No Yes
- Staining observed on the tank surface? No Yes

Piping

- Is piping sagging, cracked or punctured? No Yes
- Liquid dripping or running from piping? No Yes
- Is the tank discharge valve closed and locked? No Yes
- Staining observed on the piping surface? No Yes

Emergency Response

- Are drums present in accumulation building? No Yes
- Are sandbags present in accumulation building? No Yes *spill kit present
- Are shovels present in accumulation building? No Yes

Vegetation

Inspect landfill cap and berm for areas with sparse vegetation, deep-rooted plants and proper height around equipment and access roads. Describe any identified issues and note on an attached drawing. If no issues are found, indicate "none" in the appropriate box.

Cell	Areas with sparse vegetation present?	Deep-rooted plants present?	Areas around building and equipment mowed?	Access roads mowed and in good condition?
A	snow covered	None	snow covered	snow covered
B	snow covered	None	snow covered	snow covered
C	snow covered	None	snow covered	snow covered
D	snow covered	None	snow covered	snow covered
E	cell E berm has no vegetation due to repair of liner	None	snow covered	snow covered
F	snow covered	None	snow covered	snow covered
Berms	cell E berm has no vegetation due to the liner repair	None	snow covered	snow covered
		None	snow covered	snow covered

Access Roads

Inspect for sufficient gravel and proper drainage. Note identified issues on an attached drawing.

Area	Sufficient gravel present?	Proper drainage present?	If no, describe
Roads located approx. west of landfill	snow covered		
Roads located approx. east of landfill			
Roads located approx. north of wetlands			
Roads located approx. south of wetlands			
Roads located approx. west of wetlands			
Roads located approx. east of wetlands			

Site Perimeter Fence

Inspect all perimeter fencing and gates for damage or unauthorized entry, and proper warning signs. Note identified issues on an attached drawing.

Area	Any damage present?	Signs of unauthorized entry?	Broken or damaged locks on gates?	"Trespassing Prohibited" and "Private Property" Signs Posted?
Fences along north property line	hole in fence	No	No	Yes
Fences along south property line	No	No	No	Yes
Fences along west property line	two holes in fence four areas w/ missing or cut wire	No	No	Yes
Fences along east property line	hole in fence	No	No	Yes

Leachate Collection System

Conduct the alarm test, cable test and battery test on a yearly basis as outlined in Section 4 of the post Closure Care Plan. Inspect the system panel boxes for visible signs of damage.

Alarm Test

1. Disconnect the sensor cable.
2. Reconnect the sensor cable. Alarm will reset.

Cable Test

1. Wet a short length of cable to activate the alarm by wetting a section of the cable stored in the containment vault.
2. Dry the cable after the test.

Alarm Test		Cable Test	
Did the system show a fault in the cable?	Was the alarm activated?	Was the alarm activated?	Any damage noted to system panel boxes?
Yes	Yes	Yes	No

Battery Test

1. Turn the power off.
2. Remove the processor card.
3. Remove the battery jumper.
4. Is the voltage across the terminals is < 3.6 VDC?
5. If yes, replace the battery.

Remaining Materials Area

Inspect the soil cover for deep root penetration, burrowing animals, soil erosion, ponding of water and slope failures. Note problems on an attached drawing.

Area of Inspection	Animal Burrows?	Soil Erosion	Slope Failures?	Ponding?	Washouts?	If yes to any, describe issue, location, and actions taken
RMA	No	No	No	No	No	

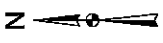
Drainage Inspections

Inspect the perimeter of the landfill and berm, drainage trenches at the base of the landfill, RMA and wetlands area for potential drainage problems. Check culverts around landfill, western drainage swale and north landfill catch basin for blockage.

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RMA	No			
Wetlands area	No			
Culverts around landfill	No			
Western drainage swale	No			
North landfill catch basin	No			

12/29/10

FIGURE 2

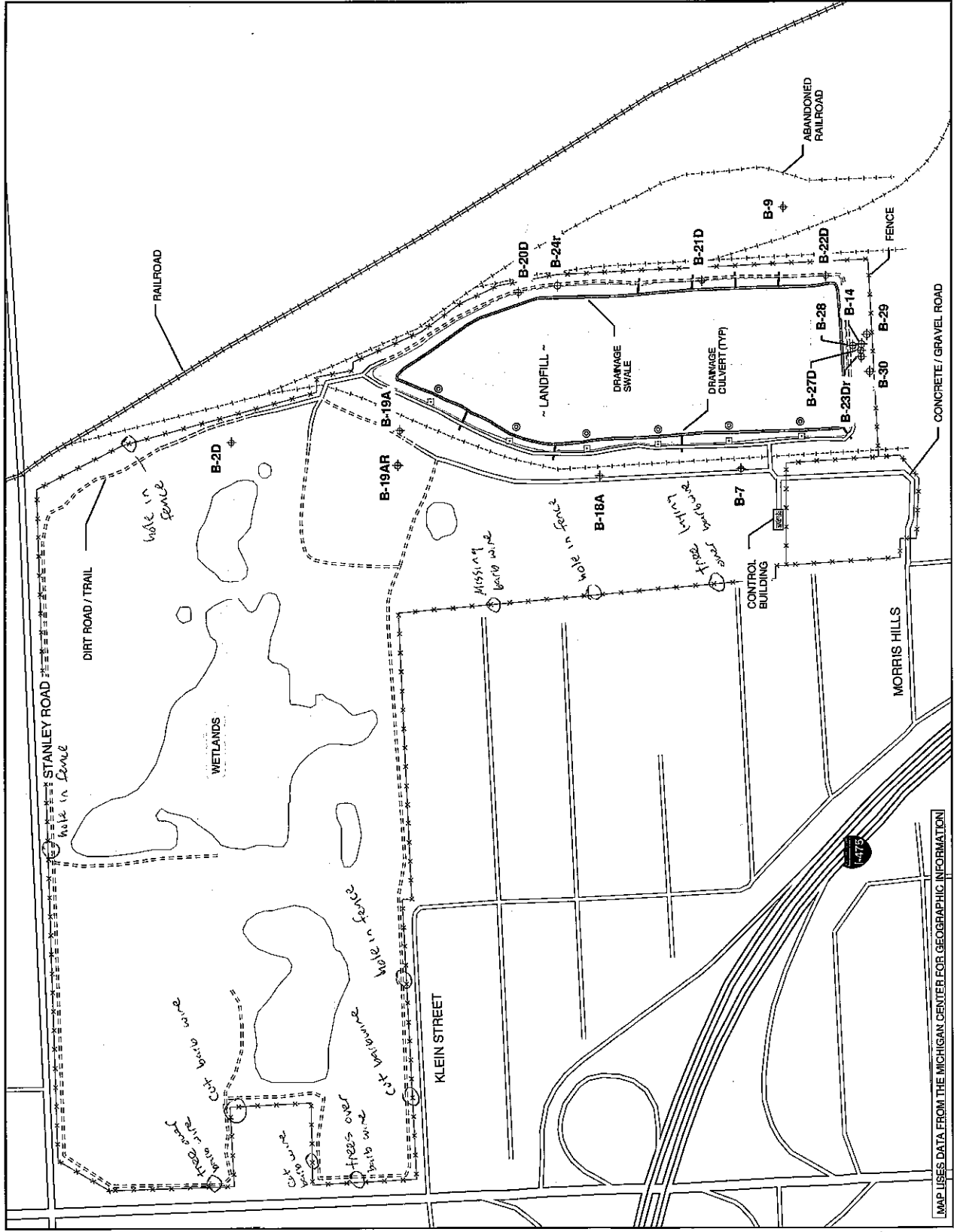
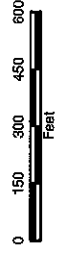


LEGEND

- ⊙ LEACHATE COLLECTION SUMP
- ⊠ ACCESS PORT FOR LEAK DETECTION VAULT
- ⊕ MONITORING WELL
- ⊖ ABANDONED WELL

REALM
COLDWATER ROAD
LANDFILL FACILITY
FLINT, MICHIGAN

SITE LAYOUT



360° Engineering and Project Delivery Solutions

All materials printed on recycled paper. 

