



**WASTE MANAGEMENT  
OF CANADA CORPORATION**

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June 1, 2007

Greg Davis, Senior Environmental Officer  
Ontario Ministry of the Environment  
Ottawa District Office  
2430 Don Reid Drive  
Ottawa, Ontario K1H 1E1

**Re: Waste Management of Canada Corp, (WM) Ottawa Waste Management Facility  
Landfill Gas Odour Management Action Plan**

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Dear Mr. Davis:

Please find attached a Summary Action Report that outlines our landfill gas odour management activities conducted in 2007 year to date. Also, attached is a table that not only lists our actions in 2007 to date but actions planned going forward. As you can see, we have been quite busy in 2007, implementing a number of enhancements to our landfill gas management system.

These activities include:

- construction of five (5) new landfill gas (LFG) wells
- purchase and installation of seven (7) LFG well dewatering pumps
- conversion of ninety (90) LFG well heads to the WM standard well head with orifice plates
- hired and trained a landfill gas field technician to carry out weekly LFG well field adjustments
- application of final clay cover on 2.0 hectares of completed north slope
- application of 3.0 hectares of interim cover on the north east slope
- conducted two community odour monitoring surveys by a third party landfill gas consultant (RWDI)
- conducted a Surface Emissions Survey using a third party landfill gas consultant (ASA)

If you would like to discuss any of these actions and future planned activities, please call me.

Yours truly,

Michael Walters  
Senior District Manager, Landfills  
Eastern Canada

Encl:



## **Summary Action Report**

### **Week ending Feb 3/07**

- One (1) new vertical landfill gas well (GW 82) was installed on the NW slope on Friday February 2, 2007. All landfill gas wells were manually dewatered during the week beginning January 29, 2007. Five (5) mechanical dewatering pumps have been running 24/7 since Thursday Feb 1, 2007.
- The leachate seeps at the base of the ramp and on the compactor ramp were repaired on February 3 and 4, 2007. Two 45' boreholes were drilled to drain leachate into the waste.
- Two (2) french drains were installed on the NW slope.
- Daily landfill gas well inspection was carried out as well as adjustments to the LFG well field were conducted.

### **Week ending Feb 10/07**

- Four (4) new vertical LFG wells were constructed and commissioned on the NW corner of the landfill (GW 83, 84, 85, 86). Constructed the LFG collection piping to these new LFG wells and hooked into the system on February 14, 2007. Frozen wellheads were thawed and dewatered the LFG wells were completed.
- Nielsen Systems completed the hot water system for the odour control misting system. The water is heated from 4 deg C to 15 deg C using a heat exchanger from the flare. The odour control nozzle line was also heat traced. The systems can now operate to temperatures below -20 deg C.
- The leachate pump stations from the lined area of the cell were sealed by Baker Construction and Plumbing Village to eliminate odours from the leachate collection system.

### **Week ending Feb 17/07**

- Leachate seep on the south slope was repaired and installed a dewatering pump in a flooded well (GW 9) near that seep. We now have a total of five (5) LFG wells dewatering pumps in the field working 24/7.

- The installation of the collection system for the five (5) LFG wells on the NW slope was completed. The wells are now connected to the gas collection system. Frozen LFG wellheads were repaired. The LFG wellheads were cleaned and insulated.
- A training and field evaluation from Mike Allen (WM Manager of LFG Operations) was conducted at the site. The personnel were retrained on the LFG field operation & well optimization,

#### **Week ending Feb 24/07**

- The LFG wells were dewatered on a daily basis. Two (2) new dewatering pumps on the south slope were installed in wells 10 and 11. Wellheads insulation was upgraded. The site engineer was trained on WM Landfill Gas Management System (database).

#### **Week ending March 3/07**

- The remainder of the LFG wellheads were insulated and repaired. The header pipe on the south slope, near the cleanout manhole, was rerouted around the manhole. The manhole is now connected as a well. The LFG well field was balanced and LFG flows were monitored using a Pitot tube and orifice plate.
- The NE corner of the LF slope was sealed with clay to repair LFG seeps.
- The LFG wells were dewatered on a daily basis.
- Posted the LFG technician job.

#### **Week ending March 10/07**

- A section on the North Slope below the access ramp (1 Ha) was capped with one (1.0) metre of clay.
- The LFG wells were dewatered on a daily basis

#### **Week ending March 17/07**

- Two (2) Ha of capping on the North Slope was completed.
- The LFG wells were dewatered on a daily basis.



**Week ending March 24/07**

- The flow monitoring on the LFG field was completed on Wednesday March 21, 2007 using the new WM procedures. The LFG field was re-balanced this week. Three (3) new dewatering pumps were installed in LFG wells (8, 11 and 12) on the south slope. The LFG wells were dewatered on a daily basis.

**Week ending March 31/07**

- One (1) more new dewatering pump was installed in LFG well 31 on the south slope. The LFG field was balanced. Began applying a cementitious mixture of Posi-Shell on the NE slope as an interim cover to seal the slope and eliminate gas seeps.

**Week ending April 7/07**

- A LFG technician was hired.
- The field was rebalanced and the LFG water levels were monitored.
- The application of Posi-Shell as an interim cover seal on the North Slope was completed

**Week ending April 14/07**

- Mike Allen (WM Manager of Landfill Gas Operations) & William Schubert (WM Mid West Division Director of Engineering) visited the site on April 10 and 11, 2007 to review LFG field performance. A schedule and budget was established to optimize the LFG field performance.
- The new WM LFG wellheads were delivered on April 10, 2007. The conversion to the new LFG well heads began on April 11, 2007. Thirty (30) new LFG well heads were installed this week.
- Inputted the LFG well information into the WM LGMS. This allows us to download our data from the well head in the field directly into the LGMS database for review by the WM landfill gas operations team. The new landfill gas technician was trained to monitor the field with the Gas Extraction Monitor (GEM).

**Week ending April 21/07**

- Completed the conversion to the new WM LFG wellheads with the installation of sixty (60) new wellheads this week. The LFG well field was monitored this week and the data was loaded into the WM Landfill Gas Management System database.
- Capping of the NE corner of the LF footprint and re-grading the ditches was completed.

**Week ending April 28/07**

- The LFG well field was monitored and balanced. All the LFG dewatering pumps were inspected.

**Week ending May 5/07**

- Completed two rounds of monitoring and balancing of the LFG well field. The data was entered into the LGMS.

**Week ending May 12/07**

- Monitored and balanced the LFG well field and inspected the dewatering pumps. Completed more capping on the East Slope.

**Waste Management of Canada Corporation - Ottawa Landfill Site**  
**Schedule of completed Landfill Gas Management Actions and Planned future Enhancements**

	Tasks	Status	Completion date																																															
			Dec-06					January				February				March				April				May				June				July				August				September										
			3	10	17	24	31	7	14	21	28	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	16										
1	<b>Evaluation of Odour Sources</b>																																																	
	Conduct Surface Emission Survey (ASA)	Completed Dec/06 & May/07 studies																																																
	Submission of ASA report	Completed 2006 & spring Survey																																																
	Undertake community odour monitoring survey (RWDI)	Completed																																																
	Undertake Community Odour Monitoring Survey (WM)	On-going																																																
	Train odour panel (RWDI)	On-schedule																																																
	Ambient Air Monitoring work (RWDI)	On-schedule																																																
	Response to Community Odour Inquiries	On-going																																																
	Submission of Ambient Air Report to MOE	On-schedule																																																
2	<b>Complete operational improvements</b>																																																	
	Installation of gas collection system on the NE slope	Completed																																																
	Install new wells on NE slope (9 wells)	Completed																																																
	Installed 6 dewatering pump in LFG wells on NE corner	Completed																																																
	Installation of gas collection system on the NW slope	Completed																																																
	Install new wells on Northwest end of landfill mound (5 wells)	Completed																																																
	LFG field review by WM LFG field Manager (Mike Allen)	Completed																																																
	LGMS training of Site Engineer	Completed																																																
	Install 9 additional dewatering pumps in LFG wells	Completed																																																
	Hire a LFG Well Field Technician	Completed																																																
	Daily inspection of well field	On-going																																																
	Adjustments of well field performance (COMCOR)	On-going monthly																																																
		Replacement of 20 LFG wells & insulation of 10 new gas we	On-going																																															
3	<b>Additional Enhancements</b>																																																	
	Winterize odour control system	Completed																																																
	Apply cementeous cover NE Slope and top of site (Posi-She	Completed on March 16/07																																																
	Regrade, topsoil & seed completed portions of east, south a	On-going																																																
	Complete annual capping (2ha)	Completed 1.5 Ha on the North slope on March 15/07. Remaining 0.5 Ha is on-schedule																																																
	Place Interim Cover (approx 3ha)	Completed 3 Ha on top of LF																																																

Work completed since January Newsletter