

89033

000000



Roy F. Weston, Inc.  
Suite 400  
3 Hawthorn Parkway  
Vernon Hills, Illinois 60061-1450  
847-918-4000 • Fax 847-918-4055

19 November 1997

Mr. Matt Ohl, HSRM-6J  
Remedial Project Manager  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604

U.S. EPA Contract No.: 68-W8-0089

Work Assignment No.: 032-5PZ2 (Yeoman Creek Landfill Site)

Document Control No.: 4500-32-AOUW

Subject: Results of Monthly Monitoring of the Basements North  
of Yeoman Creek Landfill

Dear Mr. Ohl:

Roy F. Weston, Inc. (WESTON®) is pleased to submit the monthly monitoring oversight report for the basements located north of the Yeoman Creek Landfill. The monthly monitoring of the basements was conducted on 28 October 1997 by De-Maximas, Inc. and O&M, Inc. Aircon was also present during the monitoring. The oversight was provided by Mr. Omprakash Patel of WESTON.

During this reporting period, the following basements were monitored:

- Basements located at 1401-1451 West Golf Road.
- Basement located at 2122 Yeoman Street (Evoy Property).
- Basement located at 1615 Sunset Avenue (Terrace Nursing Home).

All basements at 1401-1451 West Golf Road, except the basements at 1431 West Golf Road, were tested with zinc powder to determine if the basements had positive pressure. The results of this test indicated basements at 1415 West Golf Road and 1419 West Golf Road had negative pressure.

Monitoring was done using an OVA (FID) and CGI. This was the first monitoring event performed by the personnel from De-Maximas, Inc. and O&M, Inc. They were not aware of the monitoring locations. In order to continue monitoring smoothly, WESTON oversight personnel identified the locations. The results of monitoring are summarized in Tables 1 through 7.





Mr. Matt Ohl  
U.S. EPA

-2-

19 September 1997

The FID measurements indicated that the readings in the breathing zone at all the monitoring locations in all the basements, except the basement at 1451 West Golf Road, were less than 100 units. The FID measurements exceeded 100 units in the breathing zone in the basement at 1451 West Golf Road.

The FID results also exceeded 100 units at the following locations:

- Floor drain at 1425 West Golf Road basement
- Floor drain and cracks at the 1451 West Golf Road basement.

The percent LEL was significantly higher in the floor drains at the 1425 West Golf Road and 1451 West Golf Road basements.

Low percent oxygen levels were also present in the crack in the floor drain in the 1425 West Golf Road basement. The auto-dialer system appeared to be functioning appropriately.

If you have any questions, please call.

Very truly yours,

ROY E. WESTON, INC.

A handwritten signature in black ink, appearing to read "Omprakash S. Patel", is written over a horizontal line.

Omprakash S. Patel  
Site Manager

OSP/slr  
Attachments

**Table 1**

**Monthly Monitoring of 1401 West Golf Road Basement  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997**

Location	FID (units)	CGI		
		LEL (%)	Hydrogen Sulfide (ppm)	Oxygen (%)
Background (N. of building)	0	0	NM	21
East corner of basement	0.2	0	NM	20
Center of basement	0	0	NM	21
West corner of basement	0	0	NM	21
Top of sump	0	0	NM	20
Sink drain	0	0	NM	21
Restroom drain (plugged)	0	0	NM	21
Shower drain (plugged)	0.2	0	NM	20
Sauna drain (rag stuffed in drain)	0	0	NM	20
Crack in floor (NE corner, AS-1)	0	0	NM	20
Crack in floor (N. of sump, AS-2)	0	0	NM	21

NM - Not measured.

**Table 2**

**Monthly Monitoring of 1407 West Golf Road Basement  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997**

Location	FID (units)	CGI		
		LEL (%)	Hydrogen Sulfide (ppm)	Oxygen (%)
Background (N. of building)	0	0	NM	21
Breathing zone of basement/East	4.9	0	NM	20
Breathing zone of basement/Center	5.0	0	NM	20
Breathing zone of basement/West	5.1	0	NM	20
Top of sump	3.8	0	NM	20
Crack in floor near N. wall (center)	5.8	0	NM	20
Crack in floor at S. wall	5.8	0	NM	20
Floor drain	3.4	0	NM	21

NM - Not measured.

**Table 3**

**Monthly Monitoring of 1415 and 1419 West Golf Road Basement  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997**

Location	FID (units)	CGI		
		LEL (%)	Hydrogen Sulfide (ppm)	Oxygen (%)
<b>Laundry Room</b>				
Background (S. of building)	0	0	NM	21
Breathing zone of basement/Center	3.2	0	NM	21
Sump (no pump installed)	11.0	0	NM	21
<b>Sign-Making Room</b>				
Breathing zone of basement/East	4.9	0	NM	21
Breathing zone of basement/Center	5.2	0	NM	21
Breathing zone of basement/West	5.0	0	NM	21
Crack in floor (center)	5.4	0	NM	21
Floor drain (blocked)	6.0	0	NM	21

NM - Not measured.

**Table 4**

**Monthly Monitoring of 1425 West Golf Road Basement  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997**

Location	FID (units)	CGI		
		LEL (%)	Hydrogen Sulfide (ppm)	Oxygen (%)
Background (N. of building)	0	0	NM	21
Breathing zone of basement/East	14.4	0	NM	21
Breathing zone of basement/Center	11.4	0	NM	21
Breathing zone of basement/West	11.2	0	NM	21
Top of sump	12.8	0	NM	21
Crack in floor near SE corner	11.8	0	NM	21
Crack in floor of workroom (N)	50.0	0	NM	21
Floor drain (blocked)	>1,000*	18**	NM	12+

\* Exceeds 100 units as measured by FI.

\*\* Significantly high percent LEL.

+ Significantly low percent oxygen.

NM - Not measured.

**Table 5**

**Monthly Monitoring of 1431 West Golf Road Basement  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997**

Location	FID (units)	CGI		
		LEL (%)	Hydrogen Sulfide (ppm)	Oxygen (%)
Background (S. of building)	10.0	0	NM	21
Breathing zone of basement/East	20.0	0	NM	21
Breathing zone of basement/Center	11.2	0	NM	21
Breathing zone of basement/West	10.9	0	NM	21
Top of sump (SW corner)	29.0	0	NM	21
Shower drain	21.0	0	NM	21
Sink drain	49.0	0	NM	21
Restroom drain	49.0	0	NM	21

NM - Not measured.

**Table 6**

**Monthly Monitoring of 1451 West Golf Road Basement  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997**

Location	FID (units)	CGI		
		LEL (%)	Hydrogen Sulfide (ppm)	Oxygen (%)
Background (S. of building)	10	0	NM	21
Breathing zone of basement/East	110*	0	NM	21
Breathing zone of basement/Center	105*	0	NM	21
Breathing zone of basement/West	110*	0	NM	21
Top of sump (S. wall)	52	0	NM	21
Floor drain	>1,000*	18**	NM	21
Crack in floor (center of basement)	550*	0	NM	21
Crack in floor (west end)	380*	0	NM	21

\* Exceeds 100 units as measured by FID.

\*\* Significantly high percent LEL.

NM - Not measured.



Table 7

**Results of Monthly Monitoring of the Basements  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997**

Location	Monitoring Location	FID (ppm)	% LEL	% Oxygen
2122 Yeoman Street	Background (W. of building)	0	0	21
	Ambient air (breathing zone)	0	0	21
	Sump (SW corner)	0	0	21
	Floor drain (SW corner)	1.3	0	21
	Entrance to crawlspace	0.4	0	21
	North wall/floor joint	0	0	21
	South wall/floor joint	0	0	21
	East wall/floor joint	0.1	0	21
	West wall/floor joint	3	0	21
1615 Sunset Avenue (Terrace Nursing Home)	Background (N. of building)	0.1	0	21.8
	Laundry room, ambient air	4.1	0	21.5
	Laundry room, crack in floor (E-W @ E)	3.9	0	21.5
	Laundry room, crack in floor (N-S @S)	3.9	0	21.5
	Laundry room, floor drain (E)	5.6	0	21.0
	Laundry room, floor drain (W)	4.1	0	21.0
	Linen room, ambient air	4.1	0	21.0
	Linen room, midroom crack (N-S)	4.4	0	21.0
	Linen room, East end crack (N-S)	3.2	0	21.0
	Linen room, East wall, ambient air at crack	4.7	0	21.0
	Speech therapy room, ambient air	2.4	0	21.0
	Rehab/case plan, ambient air	NM	0	NM
	Supply room, ambient air	1.9	0	21.0
	Boiler room, ambient air	1.2	0	21.5
	Boiler room, floor drain	1.1	0	21.0
	Hair salon, ambient air	1.6	0	21.0
	Rehab, ambient air	2.2	0	21.0
	Activity room, ambient air	2.4	0	21.0
	Activity room, floor drain	2.3	0	21.0

**Table 7**

**Results of Monthly Monitoring of the Basements  
Yeoman Creek Landfill  
Waukegan, Illinois  
28 October 1997  
(Continued)**

Location	Monitoring Location	FID (ppm)	% LEL	% Oxygen
1615 Sunset Avenue (Terrace Nursing Home) (cont.)	Physiotherapy room, ambient	4.4	0	21.0
	Lounge, ambient air	3.0	0	21.0
	South office, ambient air	28	0	21.0
	South caged storage area, ambient air	2.8	0	21.0
	Activity office, ambient air	NM	0	NM
	Vending room, ambient air	2.1	0	21.0
	NW lunchroom, ambient air	3.4	0	21.0
	North caged storage area, ambient air	2.2	0	21.0
	Duct room, ambient air	2.2	0	21.0
	Open storage, ambient air	2.2	0	21.0
	Open storage, floor drain	11.0	0	21.0
	Sump	42	0	21.5
	Sump room, ambient air	2.4	0	21.5

Note: H<sub>2</sub>S (ppm) readings were not measured.