

Bethel-Danebo Closed Landfill Progress Report

For July 2016

Actions during this month:

- Gas sampling at trench probes and the gas collection system.
- Blower has run continually without issue since June the 25th 2015.
- The blower vacuum is at 7.4. The soils have dried and have some larger cracking.
- Blower exhaust was sampled for methane (BLOWEXAU) a constant 0.3% was observed. I plan to make this a regular sample location.
- Repair of passive exhaust riser on BCI lot. Picture of broken riser attached.

- **Actions scheduled to be taken within the next two months:**

- Continue sampling schedule. Water samples from designated wells and probes. Standard bailers do not fit in the probes for sampling. Landfill engineer is researching potential sampling devices.

Problems experienced during the month:

While doing gas sampling this month I noticed the probe in the middle of BCI's storage lot had a lean to it. After further investigation I discovered the riser had been broken off below the ground and someone had placed a 2x4 in the pipe in the ground and slipped the broken off riser pipe over the 2x4. This pipe had been hit in the past and broken off above ground. It was reported to me and I was able to easily fix it. This break went unreported and I suspect had been broken for months. I dug the pipe out and capped it at ground level. I have marked the cap and working with BCI to place a metal plate over it. I suspect this riser break could be the cause of vacuum reduction and the increase in methane percentage at probe08. August's sampling should tell.

On a random visit past the site I observed several pits that had been dug on lot 26. They appear to have been dug by a back hoe and were anywhere between 4 and 8 feet deep. The lot has had a "for sale" sign on it and I would guess someone was interested in buying. The neighbors tell me it happened on a Sunday and they did not see it being done. The pits were filled the next week and smoothed out with no more activity. One picture attached.

Device ID	Date/Time	CH4	CO2	O2	Balance	%LEL
GEM™5000; G5 V1_11_16; LSGAM:6_0_20160627; {85165934647}		%	%	%	%	%

Probe001	7/12/2016 11:12	0	4.9	17.1	78	0
Probe002	7/12/2016 11:19	0	2.1	19.3	78.6	0
Probe003	7/12/2016 11:25	0.3	14.8	7.4	77.5	6
Probe004	7/12/2016 11:30	6.7	14.3	12.2	66.8	>>>>
Probe005	7/12/2016 11:36	0	2.9	17.7	79.4	0
Probe006	7/12/2016 11:40	1.6	10.5	10.6	77.3	32
Probe007	7/12/2016 11:45	0	7.6	14.5	77.9	0
Probe008	7/12/2016 11:49	2.8	14.8	5.7	76.7	56
Probe009	7/12/2016 11:55	0	2.8	15.8	81.4	0
Probe010	7/12/2016 12:00	0	7.8	14.1	78.1	0
LC14-GP6	7/12/2016 12:22	0	5.3	14.4	80.3	0
LC14-GP4	7/12/2016 12:31	70.3	26.1	0	3.6	>>>>

Don Strunk
Supervisor/Technical Specialist
Lane County Waste Management Division





Device ID	Date/Time	CH4	CO2	O2	Balance
GEM™5000; G5 V1_11_16; LSGAM:6_0_20160627; {85165934647}		%	%	%	%
Probe001	7/12/2016 11:12	0	4.9	17.1	78
Probe002	7/12/2016 11:19	0	2.1	19.3	78.6
Probe003	7/12/2016 11:25	0.3	14.8	7.4	77.5
Probe004	7/12/2016 11:30	6.7	14.3	12.2	66.8
Probe005	7/12/2016 11:36	0	2.9	17.7	79.4
Probe006	7/12/2016 11:40	1.6	10.5	10.6	77.3
Probe007	7/12/2016 11:45	0	7.6	14.5	77.9
Probe008	7/12/2016 11:49	2.8	14.8	5.7	76.7
Probe009	7/12/2016 11:55	0	2.8	15.8	81.4
Probe010	7/12/2016 12:00	0	7.8	14.1	78.1
LC14-GP6	7/12/2016 12:22	0	5.3	14.4	80.3
LC14-GP4	7/12/2016 12:31	70.3	26.1	0	3.59999999 99999943

Init. Power	Adj. Power	Baro. Press.	Sys. Press.	Gas Pod Type	Gas Pod Value	CO	H2S	SO2
e3BTU/h	e3BTU/h	inches Hg	inches H2O			ppm	ppm	
N/A	N/A	29.65	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.65	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.65	N/A	N/A	N/A	1	0	N/A
N/A	N/A	29.66	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.66	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.66	N/A	N/A	N/A	1	1	N/A
N/A	N/A	29.67	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.67	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.67	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.67	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.68	N/A	N/A	N/A	0	0	N/A
N/A	N/A	29.69	N/A	N/A	N/A	0	13	N/A

NO2	CL2	H2	HCN	Inst-Tech	Latitude	Longitude	Altitude	UTC
		LMH					ft	
N/A	N/A	0	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	0	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	2	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	4	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	3	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	1	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	6	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	9	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	9	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	11	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	4	N/A	N/A_	N/A	N/A	N/A	N/A
N/A	N/A	11	N/A	N/A_	N/A	N/A	N/A	N/A

Rel. Press.	Site Chosen	Comments	Answers	Site Answers
inches H2O				
0.03	???????	???????	??	???
0.02	???????	???????	??	???
0	???????	???????	??	???
0	???????	???????	??	???
-0.01	???????	???????	??	???
0	???????	???????	??	???
0.01	???????	???????	??	???
0	???????	???????	??	???
0	???????	???????	??	???
0	???????	???????	??	???
0	???????	???????	??	???
0.01	???????	???????	??	???

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For July 2016

Actions during this month:

- Gas sampling at trench probes and the gas collection system.
- Blower has run continually without issue since June the 25th 2015.
- The blower vacuum is at 7.9. The soils have received a little precipitation.
- Blower exhaust was sampled for methane (BLOWEXAU)
- Method for ground water extraction from wells was tested and confirmed capable.

• **Actions scheduled to be taken within the next two months:**

- Continue sampling schedule.
- Water samples to be taken from designated wells and probe.

• **Problems experienced during the month:**

- The property where probes 7 and 8 are located was locked and inaccessible for sampling.
- I had software problems with a program expiration and communication with the Gem. I was able to extract the information and convert it to PDF. I was unable to paste the data here where I usually do but it is attached to the email as a PDF.

Don Strunk
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Lane County Waste Management Division

Device ID	Date/Time	CH4	CO2	O2	Balance	%LEL	Init. Static I	Adj. Static I
GEM™5000; G5 V1_11_16; LSC%		%	%	%	%	%	inches H2O	inches H2O
Probe001	8/8/2016 9:23	0	4.9	18.9	76.2		0 N/A	N/A
Probe002	8/8/2016 9:27	0.2	2.1	21.8	75.9		4 N/A	N/A
Probe003	8/8/2016 9:31	0	7.6	16.4	76		0 N/A	N/A
Probe004	8/8/2016 9:35	0	9.6	13.2	77.2		0 N/A	N/A
Probe005	8/8/2016 9:39	0	3.3	19.4	77.3		0 N/A	N/A
Probe006	8/8/2016 9:43	0.2	8.2	15	76.6		4 N/A	N/A
LP26GP05	8/24/2016 13:51	0	0.6	19.3	80.1		0 N/A	N/A
LP25MP07	8/24/2016 13:58	0	3	16.9	80.1		0 N/A	N/A
LC14-GP8	8/24/2016 14:20	0.7	23.8	0.1	75.4		14 N/A	N/A
LP23MP08	8/24/2016 14:35	65.2	20.8	1.7	12.3 >>>>		N/A	N/A
LP19MP12	8/24/2016 14:54	0	6.7	14.1	79.2		0 N/A	N/A
LP17MP01	8/24/2016 15:01	0	10.3	7.6	82.1		0 N/A	N/A
LC14-GP2	8/24/2016 15:15	5.9	25.2	0	68.9 >>>>		N/A	N/A
LP00SD03	8/24/2016 15:23	0	0.1	19.7	80.2		0 N/A	N/A
LC14-GP4	8/24/2016 15:26	63.2	32.3	0	4.5 >>>>		N/A	N/A
LC14-GP6	8/24/2016 15:33	0	3.9	14.5	81.6		0 N/A	N/A
BLOWEXAL	8/24/2016 15:53	0	0.2	18.5	81.3		0 N/A	N/A
Probe001	8/24/2016 15:59	15.2	19.3	0.4	65.1 >>>>		N/A	N/A
Probe002	8/24/2016 16:03	20.9	23.9	0	55.2 >>>>		N/A	N/A
Probe003	8/24/2016 16:07	0	7.6	12.2	80.2		0 N/A	N/A
Probe004	8/24/2016 16:10	0	11.6	5.6	82.8		0 N/A	N/A
Probe005	8/24/2016 16:14	0	4.9	13.6	81.5		0 N/A	N/A
Probe006	8/24/2016 16:17	0.4	16.5	0.5	82.6		8 N/A	N/A
Probe009	8/24/2016 16:26	0	4.5	10.4	85.1		0 N/A	N/A
Probe010	8/24/2016 16:30	0	10.3	8.9	80.8		0 N/A	N/A
LP25GP26	8/24/2016 16:37	2.5	22.8	0.3	74.4		50 N/A	N/A

Sys. Press. inches H2O	Gas Pod Ty	Gas Pod Va	CO ppm	H2S ppm	SO2	NO2	CL2	H2 LMH
N/A	N/A	N/A		0	0	N/A	N/A	0
N/A	N/A	N/A		0	0	N/A	N/A	0
N/A	N/A	N/A		0	0	N/A	N/A	0
N/A	N/A	N/A		0	0	N/A	N/A	0
N/A	N/A	N/A		0	0	N/A	N/A	0
N/A	N/A	N/A		0	0	N/A	N/A	0
N/A	N/A	N/A		0	0	N/A	N/A	3
N/A	N/A	N/A		0	0	N/A	N/A	9
N/A	N/A	N/A		0	2	N/A	N/A	28
N/A	N/A	N/A		0	17	N/A	N/A	33
N/A	N/A	N/A		0	0	N/A	N/A	26
N/A	N/A	N/A		0	0	N/A	N/A	21
N/A	N/A	N/A		2	27	N/A	N/A	61
N/A	N/A	N/A		1	0	N/A	N/A	21
N/A	N/A	N/A		1	14	N/A	N/A	31
N/A	N/A	N/A		0	0	N/A	N/A	25
N/A	N/A	N/A		0	0	N/A	N/A	23
N/A	N/A	N/A		1	0	N/A	N/A	30
N/A	N/A	N/A		0	0	N/A	N/A	63
N/A	N/A	N/A		0	0	N/A	N/A	37
N/A	N/A	N/A		0	0	N/A	N/A	33
N/A	N/A	N/A		0	0	N/A	N/A	29
N/A	N/A	N/A		0	0	N/A	N/A	33
N/A	N/A	N/A		0	0	N/A	N/A	30
N/A	N/A	N/A		0	0	N/A	N/A	32
N/A	N/A	N/A		0	0	N/A	N/A	32

Anemomet	PeakCH4	PeakCO2	Anemomet	MinO2	Temp. GA	Rel. Press.	Site Choser	Comments
m/s	%	%	m3/hr	%	DegF	inches H2O		
N/A	N/A	N/A	N/A	N/A	N/A	0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.04	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0.02	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0.02	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0.02	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	0	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.01	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.02	,,,,,,	,,,,,,
N/A	N/A	N/A	N/A	N/A	N/A	-0.01	,,,,,,	,,,,,,

