

ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY

231 HAYWOOD STREET, ASHEVILLE, NC 28801

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August 20, 2010

Mr. Zinith Barbee
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Subject: Quarterly Landfill Gas Monitoring Results—May 26, 2010 and August 11, 2010
International Paper Company—Closed Canton Landfill 5, Permit No. 44-01
Canton, North Carolina

Dear Mr. Barbee,

On behalf of International Paper Company (IP), Altamont understands, per a telephone conversation with Mr. Ervin Lane, Hydrogeologist for the North Carolina Department of Environment and Natural Resources (NCDENR), Solid Waste Section (SWS) on August 19, 2010, that we are to provide you with landfill gas monitoring results associated with the International Paper Company Closed Industrial Solid Waste Landfill 5 (Permit # 44-01) per the approved Landfill Gas Monitoring Plan submitted to Ms. Christine Ritter of the SWS on December 10, 2009. The referenced monitoring plan stated that, Altamont on behalf of IP would provide landfill gas monitoring results to the SWS on an annual basis with the groundwater quality monitoring report for the site. The groundwater quality monitoring report has been submitted to Mr. Lane with a cover letter on August 20, 2010.

Altamont provides this information to you despite the fact that no exceedances were detected in either Landfill Gas Compliance Boundary Probes (LFG CBPs) or structures located within the landfill parcel boundary. This letter and its attachments summarize the landfill gas monitoring results from the quarterly sampling events that took place on May 26, 2010 and August 11, 2010. The referenced site is located in Canton, North Carolina as indicated in the attached Figure 1.

Installation of LFG CBPs at the site were completed on May 21, 2010. LFG CBPs were installed in locations approved by the SWS as indicated on the attached Figure 2.

Henceforth, with your concurrence, we request that landfill gas monitoring results only be reported to the SWS if methane gas levels are found to be in exceedance SWS regulation (100% of the Lower Explosive Limit (LEL) for Methane in LFG CBP or 25% of the LEL for Methane in structures within the landfill parcel) per North Carolina General Statute 15A North Carolina Administrative Code 13B .1626(4)(c).

Results from sampling of LFG CBPS are shown on Table 1. Results from ambient screening locations within structures are shown on Table 2.

Mr. Barbee
August 20, 2010
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We appreciate your time and consideration on this project. Please feel free to call or respond with any questions or comments that you may have.

Sincerely,

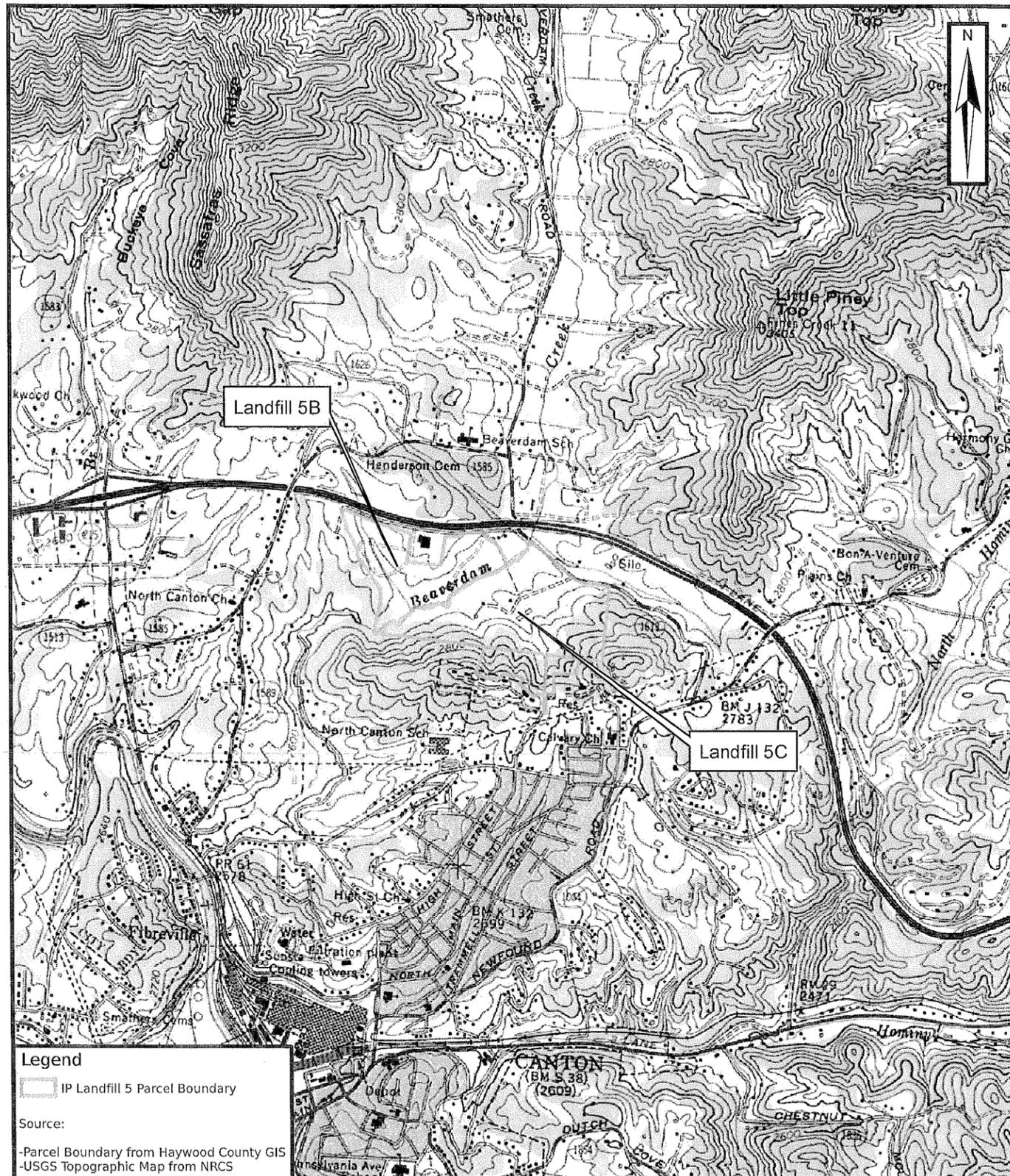
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Joel D. Lenk, P.G.

Enclosures: Figure 1-Site Location Map
Figure 2-Existing Probe and Ambient Landfill Gas Monitoring Locations
Table 1-Landfill Gas Sampling Results for Compliance Boundary Probes
Table 2-Landfill Gas Sampling Results for Ambient Locations within Structures

Cc: Mr. Tom Richardson, International Paper Company
Ms. Christine Ritter, NCDENR Solid Waste Section
Ms. Andrea Keller, NCDENR Solid Waste Section, ARO



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SITE LOCATION MAP

LANDFILL 5 (44-01)
 CLOSED INTERNATIONAL PAPER LANDFILL
 CANTON, NORTH CAROLINA

FIGURE

1

Drawn By: Anna Saylor
 Project Manager: Joel Lenk
 Client: International Paper Co.
 Date: 8/13/2010



Table 1
Landfill Gas Sampling Results for
Compliance Boundary Probes Installed May 17-21, 2010
Closed International Paper Landfill 5 (44-01)
Canton, North Carolina

Location	Date	Time	Lower Explosive Limit (%)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Barometric Pressure (inches of mercury)
Exceedence Limit			100	5	NL	NL	NA
4401B-CBP1	5/26/2010	11:35	46	2.3	6.6	10.2	27.27
	8/11/2010	10:56	28	1.4	16.8	0.5	27.32
4401B-CBP2	5/26/2010	13:01	0	0.0	5.1	14.7	27.19
	8/11/2010	10:20	0	0	3	16.8	27.28
4401B-CBP3	5/26/2010	15:54	2	0.1	2.7	15.3	27.16
	8/11/2010	10:36	0	0	0.6	19.5	27.31
4401B-CBP4	5/26/2010	13:36	0	0.0	0.5	19.6	27.23
	8/11/2010	12:28	0	0	0.2	20.2	27.35
4401B-CBP5	5/26/2010	13:45	0	0.0	0.3	20.1	27.25
	8/11/2010	12:35	0	0	0.2	20	27.37
4401B-CBP6	5/26/2010	13:50	0	0.0	0.5	19.6	27.25
	8/11/2010	12:38	0	0	0.6	19.4	27.38
4401C-CBP8	5/26/2010	14:57	2	0.1	0.9	18.6	27.07
	8/11/2010	13:05	0	0	1.1	18.6	27.22
4401C-CBP9	5/26/2010	14:37	0	0.0	0.5	19.3	27.09
	8/11/2010	11:28	0	0	2.3	16.6	27.23
4401C-CBP10	5/26/2010	14:30	0	0.0	0.2	19.7	27.10
	8/11/2010	11:32	0	0	0.8	19.1	27.23
4401C-CBP11	5/26/2010	14:19	0	0.0	0.2	20.1	27.12
	8/11/2010	11:49	0	0	0.6	19.4	27.26
4401C-CBP12	5/26/2010	14:05	0	0.0	0.6	19.2	27.15
	8/11/2010	12:12	0	0	1.7	17.6	27.29
4401C-CBP13	5/26/2010	13:57	0	0.0	0.1	20.1	27.26
	8/11/2010	12:19	0	0	0.5	19.4	27.39

Notes:

1. August 11, 2010 readings taken with a Landtec Gas Analyzer and Extraction Monitor (GEM) 2000 by Technician Parker Brooks.
2. Exceedence limits are taken from the North Carolina Solid Waste Management Rules 15A NCAC 13B.
3. NL indicates no established Solid Waste Management exceedence limit.
4. NA indicates not applicable.

Table 2
Landfill Gas Sampling Results for Ambient Locations within Structures
Closed International Paper Landfill 5 (44-01)
Canton, North Carolina

Location	Date	Time	FID (ppm)		Notes
			without carbon filter	with carbon filter	
Exceedence Limit			12,500	12,500	
LF5B-A1	5/26/2010	11:18	6.35	ND	Maintenance Office
	8/11/2010	9:45	0.52	0.32	
LF5B-A2	5/26/2010	11:43	-0.61	ND	Baseball Storage Shed
	8/11/2010	9:48	0.68	0.29	
LF5B-A3	5/26/2010	11:45	-1.51	ND	Football Storage Shed
	8/11/2010	9:53	0.67	0.42	
LF5B-A4	5/26/2010	12:05	-2.06	ND	Concession Stand
	8/11/2010	10:01	-0.20	-0.07	
LF5B-A5	5/26/2010	12:34	-1.81	ND	West Side of Barn
	8/11/2010	10:12	0.27	0.15	
LF5B-A6	5/26/2010	12:36	-1.72	ND	East Side of Barn
	8/11/2010	10:23	-0.12	-0.03	
Ambient Air	5/26/2010	11:15	-1.34	ND	Reading taken on-site in parking lot
	8/11/2010	10:16	-0.11	-0.06	
Sharpie Cap	5/26/2010	11:13	99.86	ND	
	8/11/2010	10:18	14.89	0.77	

Notes:

1. August 11, 2010 readings were taken with a Foxboro TVA 1000 FID meter by Parker Brooks.
2. FID indicates flame ionization detector, which detects hydrocarbon vapors including methane.
3. ppm indicates parts per million.
4. Regular tip versus carbon filter indicates one reading was taken without a detachable carbon filter and one reading was taken with.
5. Exceedence limits were calculated based on 25% of the Lower Explosive Limit for detected explosive gases in structures, according to the North Carolina Solid Waste Management Rules 15A NCAC 13B.
6. ND indicates no data was collected that sample period.



- Legend**
- Ambient Landfill Gas Monitoring Locations
 - ⊙ Installed Landfill Gas Compliance Boundary Probes
 - ▭ Approximate Waste Boundary
 - ▭ Property Boundary
 - ▭ Approximate Locations of Proposed WNCRLC Buildings
 - ▭ 100-Year Floodplain
 - Haywood County Hydrology
 - 20-Foot Interval Contours

SOURCE:
 Color Orthophotograph - NCDA Haywood County 2008
 Property Boundary - Haywood County GIS 2009
 Hydrology - Haywood County GIS
 100-Year Floodplain - NC Floodplain Mapping Program
 Contour Lines - NCDOT, 2007 LIDAR

NOTE:
 Ambient Sample Locations LF5C A7 - 15 will not be sampled and 4401C-CBP7 will not be installed until WNCRLC Buildings are constructed.

REV	DATE	DESCRIPTION	BY	CHK	APV

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DRAWN BY: Anna Saylor
 PROJECT MANAGER: Joel Lenk
 CLIENT: International Paper Co.
 DATE: 8/16/2010

SCALE
 0 100 200 400 Feet

**Existing Probe and Ambient
 Landfill Gas Monitoring
 Locations**

Landfill 5 (44-01)
 Closed International Paper Landfill
 Canton, North Carolina

FIGURE
2