



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BETHLEHEM DISTRICT OFFICE

July 14, 2015



Lower Saucon Township Manager  
3700 Old Philadelphia Pike  
Bethlehem, PA 18015

Attn: Mr. Jack Cahalan

Re: IESI PA Bethlehem Landfill  
Permit # 100020  
Lower Saucon Township, Northampton County

Dear Mr. Cahalan:

Please find enclosed a copy of the report of an inspection performed by this District Office at the IESI PA Bethlehem Landfill, located in your municipality. A copy of the inspection report is being provided to you pursuant to the provisions of Section 1101(a) (1) of Act 101, the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988.

If you have any questions, please feel free to contact me at 610-861-2150.

Sincerely,

J Jessica Wagoner

Solid Waste Specialist

- County Waste Management Program
- Manager
- Asst. Mgr.
- Zoning
- Finance
- Police
- P. Works
- P/C
- P & R
- EAC
- Engineer
- Solicitor
- Planner
- Landfill
- EMC
- Other

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## INSPECTION REPORT – MUNICIPAL WASTE LANDFILL

Site I.D. <u>255983</u>	Telephone # <u>610-317-3200</u>
Site Name <u>IESI PA BETHLEHEM LANDFILL</u>	Operator Name <u>IESI PA BETHLEHEM LANDFILL</u>
Address <u>2335 APPLEBUTTER RD</u>	Address <u>2335 APPLEBUTTER RD</u>
<u>BETHLEHEM, PA 18015</u>	<u>BETHLEHEM, PA 18015</u>
Municipality <u>8924 LOWER SAUCON</u>	County <u>NORTHAMPTON</u>
Responsible Official <u>LEE ZIMMERMAN</u>	Title <u>PA DISTRICT MANAGER</u>
Person Interviewed <u>AL SCHLEYER</u>	Title <u>COMPLIANCE MANAGER</u>
Inspector <u>Jessica Wagoner</u>	Title <u>Solid Waste Specialist</u>
eFACTS ID # <u>PF 268729</u>	<u>SF 266826</u>

Comment: Additional efacts # 2376140, 2376141, 2376142, 2376144, 2380273, 2383821, 2385976, and 2385981

Inspection Date: 6 /29 / 2015 Type: Routine Complete Results: **Violations Noted** Resolved: / /

Permit Expiration Date: 4 / 17 / 2023 Days/Week Operated: 6 Max. Daily Volume: 1800

1 - No Violation Observed    2 - Not-Applicable    3 - Not-Determined    4 - Non-Compliance

STATUS				REVISION	COMMENTS ATTACHED	CHAPTER CITATION	LINE ITEM
1	2	3	4				
<b>GENERAL PROVISIONS</b>							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Required insurance in effect (expiration date <u>12/31/2015</u> )	<input type="checkbox"/>	271.371	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Operation in accordance with approved plans and permit.	<input type="checkbox"/>	273.201(c)(2)	2
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operation within permit boundaries (vertical and horizontal).	<input type="checkbox"/>	273.201(c)(2)	3
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disposal Timing and sequence as per Section 273.112(1).	<input type="checkbox"/>	273.201(c)(2)	4
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No unapproved wastes or liquids.	<input type="checkbox"/>	273.201(d)-(m)	5
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Isolation distances are adhered to.	<input type="checkbox"/>	273.202(a)	6
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Facilities certification requirements followed.	<input type="checkbox"/>	273.203(a), (b)	7
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Written Department approval of new construction prior to waste disposal.	<input type="checkbox"/>	273.203(c)	8
<b>DAILY OPERATIONS</b>							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proper signs posted.	<input type="checkbox"/>	273.211(a)	9
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site perimeter clearly marked and grid coordinate system in use.	<input type="checkbox"/>	273.311(b)-(d)	10
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proper barriers installed around site and access controlled when attendant not present.	<input type="checkbox"/>	273.212(a)-(i)	11
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Access roads maintained and negotiable by collection vehicles.	<input type="checkbox"/>	273.213(a)-(i)	12
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Approved means of measuring and inspected waste utilized.	<input type="checkbox"/>	273.214(a), (b)	13
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adequate equipment on-site and stand-by equipment available.	<input type="checkbox"/>	273.215(a), (b)	14
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vehicles directed promptly to unloading area and promptly unloaded.	<input type="checkbox"/>	273.216(a), (b)	15
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Solid waste spread and compacted as approved by Department as part of permit.	<input type="checkbox"/>	273.216(c)	16
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Operator implements fugitive air contaminant control/measures and prevents and controls air pollution including no exceeding of ambient air quality standards, no open burning, and minimizing generation of fugitive dust emissions from facility.	<input type="checkbox"/>	273.217(a)	17
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Operator complies with Air Quality Plan approval and Air quality Operating Permit.	<input type="checkbox"/>	273.217(b)	18

Site Name	IESI PA BETHLEHEM LANDFILL
ID Number	100020
Date	6/29/15

### INSPECTION REPORT – MUNICIPAL WASTE LANDFILL (Cont'd)

1 - No Violation Observed    2 - Not-Applicable    3 - Not-Determined    4 - Non-Compliance

STATUS				GENERAL REQUIREMENTS	COMMENTS ATTACHED	CHAPTER CITATION	LINE ITEM
1	2	3	4				
<b>DAILY OPERATIONS (Cont'd)</b>							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator does not cause or allow attraction, harborage, or breeding of vector.	<input type="checkbox"/>	273.218(a)	19
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Operator implements nuisance minimization and control plan.	<input type="checkbox"/>	273.218(b)(1)	20
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator performs regular, frequent, and comprehensive site inspections to reduce potential for offsite odors.	<input type="checkbox"/>	273.218(b)(2)	21
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator promptly addresses and correct problems and deficiencies discovered during inspections.	<input type="checkbox"/>	273.218(b)(3)	22
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Operator implements nuisance minimization and control plan to minimize and control other conditions harmful to the environment or public health, or which create safety hazards, odors, dirt, noise, unsightliness and other public nuisances.	<input type="checkbox"/>	273.218(c)	23
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator does not receive solid waste at a landfill in excess of the maximum or average daily volume approved in the permit.	<input type="checkbox"/>	273.221(a)	24
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator implements radiation protection action plan.	<input type="checkbox"/>	273.223(a)	25
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator monitors incoming waste in accordance with Department's guidance or in a manner at least as protective of the environment, facility staff and public health and safety.	<input type="checkbox"/>	273.223(b)	26
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Radiation detector elements shall be as close as practical to wasteload and in appropriate geometry to monitor the waste.	<input type="checkbox"/>	273.223(c)	27
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator has portable radiation monitors capable of determining the dose rate and presence of contamination of a vehicle that has caused an alarm. Upon exceedance of alarm level, a radiological survey of the vehicle is performed.	<input type="checkbox"/>	273.223(d)	28
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator notifies Department immediately and isolates vehicle when radiation dose rates are exceeded.	<input type="checkbox"/>	273.223(e)	29
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Monitoring equipment is calibrated at frequency specified by manufacturer, but not less than once a year.	<input type="checkbox"/>	273.223(f)	30
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If radioactive material is detected, vehicle containing material shall not leave facility without written Department approval and an authorized federal Department of Transportation exemption form.	<input type="checkbox"/>	273.223(g)	31
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Uniform cover of the approved daily cover material is placed on exposed solid waste at the end of each working day or at the end of every 24 hours, whichever interval is less.	<input type="checkbox"/>	273.232(a)	32
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If intermediate cover requires revegetation, it is established within 30 days.	<input type="checkbox"/>	273.233(e)	33
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Slopes constructed during daily landfilling and intermediate cover activities may not exceed 50 percent.	<input type="checkbox"/>	273.233(f)	34
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Operator does not cause or allow waste pollution within or outside the site from operation of the facility.	<input type="checkbox"/>	273.241(a)-(c)	35
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator has restored or replaced adversely affected water supply with an alternative source of like quantity and quality.	<input type="checkbox"/>	273.245(a)	36
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temporary water supply is provided within 48 hours.	<input type="checkbox"/>	273.245(b)	37
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Permanent water supply is provided within 90 days.	<input type="checkbox"/>	273.245(c)	38
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No waste 15 feet of inside top of the lined perimeter berm.	<input type="checkbox"/>	273.252(e)	39

**INSPECTION REPORT – MUNICIPAL WASTE LANDFILL (Cont'd)**

1 - No Violation Observed 2 - Not-Applicable 3 - Not-Determined 4 - Non-Compliance

STATUS				GENERAL REQUIREMENTS	COMMENTS ATTACHED	CHAPTER CITATION	LINE ITEM
1	2	3	4				
<b>DAILY OPERATIONS (Continued)</b>							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lined perimeter berm 4 ft. high constructed and maintained along edge of the lined disposal area.	<input type="checkbox"/>	273.252(f)	40
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Edge of liner clearly marked.	<input type="checkbox"/>	273.252(g)	41
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Alternate leachate recirculation method may be used if approved if one of the liner systems is a composite liner.	<input type="checkbox"/>	273.274(b)	42
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Underground pipes used to transport leachate to leachate storage impoundments or tanks equipped with secondary containment or comply with 245.445.	<input type="checkbox"/>	273.275(g)	43
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator isolates coal seams, coal outcrops and coal refuse from waste deposits to prevent combustion of waste and damage to liner.	<input type="checkbox"/>	273.291(a)	44
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mine openings within site sealed as approved by Department.	<input type="checkbox"/>	273.291(b)	45
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator implements plan for controlling potential damage from subsidence submitted and approved under 273.120.	<input type="checkbox"/>	273.291(c)	46
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landfill designed, constructed, maintained and operated to prevent and minimize potential for fire, explosion, or release of solid waste constituents into air, water, or soil of the Commonwealth.	<input type="checkbox"/>	273.301	47
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency equipment including portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment available. For fire equipment requiring water, facility has a water supply of or adequate quantity and pressure to supply the equipment.	<input type="checkbox"/>	273.302(a)	48
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Emergency equipment tested and maintained.	<input type="checkbox"/>	273.302(c)	49
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adequate space maintained to allow unobstructed movement of emergency personnel and equipment.	<input type="checkbox"/>	273.302(d)	50
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Litter controlled/collected and barriers/fences in place.	<input type="checkbox"/>	273.220(a)-(c)	51
<b>COVER/SLOPES/REVEGETATION</b>							
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Daily/intermediate cover meets performance and design requirements.	<input type="checkbox"/>	273.232(b), 273.233(b), (c)	52
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum 5 day supply of daily and intermediate cover maintained on-site.	<input type="checkbox"/>	273.232(c) & 273.233(d)	53
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Intermediate cover applied within time limits.	<input type="checkbox"/>	273.233(a)	54
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Intermediate slopes do not exceed 50%.	<input type="checkbox"/>	273.232(d)	55
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cap placed over entire surface of final lift meets performance standards.	<input type="checkbox"/>	273.234(a)(1)	56
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final cover meets performance and design requirements; applied within time limits.	<input type="checkbox"/>	273.234(b)-(e)	57
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final slopes stable and erosion controlled.	<input type="checkbox"/>	273.234(f)	58
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final slopes graded 3-15% or terraced to 33% as approved.	<input type="checkbox"/>	273.234(g)	59
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Minimum revegetation and successful revegetation requirements adhered to.	<input type="checkbox"/>	273.235(a)-(e) & 273.236(a), (b)	60
<b>WATER QUALITY PROTECTION</b>							
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surface and groundwater treatment facilities properly operated and maintained.	<input type="checkbox"/>	273.241(b)	61
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surface water percolation minimized/prevented.	<input type="checkbox"/>	273.242(b)(1) & 273.234(e)(4)	62

### INSPECTION REPORT – MUNICIPAL WASTE LANDFILL (Cont'd)

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STATUS				GENERAL REQUIREMENTS	COMMENTS ATTACHED	CHAPTER CITATION	LINE ITEM
1	2	3	4				
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Soil erosion and sedimentation controls designed and implemented as per approved plans; gullies over nine inches repaired.	<input type="checkbox"/>	273.242(a)-(c)	63
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sedimentation ponds and discharge structures designed, constructed, operated, and maintained in accordance with Chapters 273, 102, and 105.	<input type="checkbox"/>	273.243(a)-(g) & 273.244	64
				<b>LINER SYSTEM</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Liner system designed, constructed, operated, and maintained when required.	<input type="checkbox"/>	273.251(a), (b)	65
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Edge of liner requirements adhered to (i.e., no waste within 25 feet if adjacent liner, 4 feet high lined berm, to prevent lateral escape of leachate, adequate spacing on inside of berm to collect stormwater and sediment).	<input type="checkbox"/>	273.252(d)	66
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate detection zone monitored weekly.	<input type="checkbox"/>	273.255(c)	67
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Protective cover protects primary liner and leachate collection system and allows free flow of leachate into the collection system.	<input type="checkbox"/>	273.257(a)	68
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Protective cover meets minimum requirements and at least 18 inches thick.	<input type="checkbox"/>	273.257(b)	69
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate collection system within protective cover meets minimum requirements.	<input type="checkbox"/>	273.258(a), (b)	70
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Barrier designed, constructed and maintained as required to prevent lateral migration of leachate off-site in surface mined areas.	<input type="checkbox"/>	273.259(a)-(d)	71
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 feet of select waste placed over protective cover.	<input type="checkbox"/>	273.260	73
				<b>LEACHATE TREATMENT</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate collected and handled through Department approved method(s).	<input type="checkbox"/>	273.272(a)-(c)	74
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate transportation requirements adhered to.	<input type="checkbox"/>	273.273(a)-(c)	75
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cessation of site operation if alternate leachate handling not available.	<input type="checkbox"/>	273.273(d)	76
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate treatment system permitted and fully operational at least 3 years before closure.	<input type="checkbox"/>	273.273(e)	77
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate recirculation in accordance with regulations.	<input type="checkbox"/>	273.274(1)-(4)	78
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate collection and storage systems on-site have capacity of 30 days or 250,000 gallons, whichever is greater.	<input type="checkbox"/>	273.275(a)-(f)	79
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Leachate flow rate measured daily; analyzed quarterly.	<input type="checkbox"/>	273.276(a)-(b)	80
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Department notified when remedial action(s) required.	<input type="checkbox"/>	273.277(1)-(4)	81
				<b>WATER QUALITY MONITORING</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Approved monitoring system installed and maintained.	<input type="checkbox"/>	273.281(a), (b) & 273.283	82
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Quarterly and annual monitoring requirements adhered to and results submitted Department within time constraints.	<input type="checkbox"/>	273.284 & 273.285	83
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Groundwater assessment plan submitted and implement as required.	<input type="checkbox"/>	273.286(a)-(g)	84
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Groundwater abatement plan submitted and implemented as required.	<input type="checkbox"/>	273.287(a)-(f)	85
				<b>RECORDKEEPING AND REPORTING</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operational records maintained, available and submitted as required.	<input type="checkbox"/>	273.288 & 273.311-273.313	86
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Daily Operational Records kept in accordance with regulations for the life of the facility bond or longer if necessary.	<input type="checkbox"/>	273.311(d)	87

**INSPECTION REPORT – MUNICIPAL WASTE LANDFILL (Cont'd)**

1 - No Violation Observed 2 - Not-Applicable 3 - Not-Determined 4 - Non-Compliance

STATUS				GENERAL REQUIREMENTS	COMMENTS ATTACHED	CHAPTER CITATION	LINE ITEM
1	2	3	4				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator submits quarterly operation report.	<input type="checkbox"/>	273.312	88
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator submits annual operation report with fee.	<input type="checkbox"/>	273.313	89
				<b>MINERALS AND GAS</b>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Gas venting and monitoring in accordance with approved plans.	<input type="checkbox"/>	273.292(a)-(d)	90
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Combustible gas levels not exceeded.	<input type="checkbox"/>	273.292(e)	91
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Forced gas venting if required.	<input type="checkbox"/>	273.292(f)	92
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Gas recovery conducted as per approved plan and §273.293, including annual analysis.	<input type="checkbox"/>	273.293(a), (b)	93
				<b>EMERGENCY PROCEDURES</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Contingency plan implemented if there is an emergency.	<input type="checkbox"/>	273.303(a)-(c)	94
				<b>RECYCLING</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Operator shall salvage and recycle waste in accord with recycling plan. (273.196)	<input type="checkbox"/>	273.331(a)	95
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Salvaging and recycling controlled by operator and prevents interference within operations and prevents health hazardous nuisance.	<input type="checkbox"/>	273.331(b)	96
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Salvaged materials stored in an approved area or transported offsite.	<input type="checkbox"/>	273.331(c)	97
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drop off center established for at least three recyclables.	<input type="checkbox"/>	273.332(a)	98
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drop off center properly located, contains bins or containers, open at least 8 hours per week and 4 hours during evenings or weekends.	<input type="checkbox"/>	273.332(b), (c)	99
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Approved public notice of availability of drop off center availability is provided.	<input type="checkbox"/>	273.332(d)	100
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	On or before January 15 each year, operator informs municipality in writing of weight and type of materials recycled previous year.	<input type="checkbox"/>	273.332(e)	101
				<b>SPECIAL HANDLING AND RESIDUAL WASTES</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special handling and residual wastes disposed with prior Department approval, and in accordance with permit and Chapter 273.	<input type="checkbox"/>	273.501	102
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Infectious waste disposal restrictions adhered to.	<input type="checkbox"/>	273.511(a)-(d)	103
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chemotherapeutic waste disposal restrictions adhered to.	<input type="checkbox"/>	273.512	104
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sewage sludge co-disposal and monofill requirements followed.	<input type="checkbox"/>	273.513	105
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sewage sludge sampling requirements adhered to and sludge meets standards for control of pathogens, vectors, and odors.	<input type="checkbox"/>	273.513(c)	106
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disposal of municipal waste incineration ash in landfill or landfill cell that meets Chapter 273 requirements.	<input type="checkbox"/>	273.514(a)	107
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ash residue disposal in dedicated landfill or landfill cell unless co-disposal in accordance with Chapter 273 (including leachability treatment).	<input type="checkbox"/>	273.514(b)	108
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ash residue covered immediately or as approved by the Department.	<input type="checkbox"/>	273.514(c)	109





## INSPECTION REPORT COMMENTS

Date of Inspection 6/29/15 Identification Number 100200

Company/Facility/Site Name IESI PA Bethlehem Landfill

On June 24, 2015 this inspector conducted a routine partial inspection at IESI and on June 29, 2015 this inspector conducted a routine complete inspection at IESI PA Bethlehem Landfill (IESI). These inspections were also in follow up to the April 21, 2015 inspection. Ms. Tara Quinlivan, Air Quality Specialist, was also present on behalf of the Department. Mr. Allen Schleyer was present on behalf of IESI.

### June 1, 2015 Meeting at IESI (#2376140)

On June 1, 2015 representatives from the Department, the Pennsylvania Department of Health (PADOH), and the Agency for Toxic Substances and Disease Registry (ATSDR)/Centers for Disease Control and Prevention (CDC) were present for a meeting with IESI. At this time it was discussed that the ATSDR/CDC would be collecting information to evaluate if a public health assessment is warranted.

### June 1-4, 2015 Mobile Analytical Unit (MAU) (#2376141, 2376142, and 2376144)

The Department's MAU conducted air monitoring June 1-4, 2015 in the area of IESI. The data collected is under review.

Also during this time the Department conducted ambient air monitoring at ten points surrounding the landfill, and odor patrols in the area surrounding the landfill. The monitoring and odor patrol sheets are attached.

### June 15, 2015 Follow-up to washout on Applebutter Rd. (#2380273)

On June 15, 2015 a member of the Department's Emergency Response Team responded to a report of garbage on Applebutter Rd. following heavy rain.

Debris was noted on Applebutter Rd., however the road was passable. IESI was notified of the incident. It was agreed that IESI would address the debris the next morning. A copy of the Emergency Response report is attached.

On June 16, 2015 this inspector conducted a follow up at IESI regarding the washout incident. While approaching the landfill it was noted that several washouts had occurred along Applebutter Rd. that were unrelated to the landfill.

Mr. Schleyer stated that the landfill had received 3.28 inches of rain during the event and that the rain gauge detected rainfall rates at approximately 5.75 inches per hour. After an investigation it was determined that storm water overwhelmed a pipe and jumped the channel.

Basin 4 and 6 water levels rose up to the risers but did not crest the emergency bypass. While onsite crews were cleaning and repairing the channel. Crews were also repairing washouts and gullies. Some deep gullies were noted on the western slope, they did not appear to have waste exposed. At this time the slopes were too wet to get equipment on to make the repairs. Mr. Schleyer stated that in a few days when things dry out they would address the slope.

Mr. Schleyer stated that they cleaned Applebutter Rd. at 06:00 hours. They removed a few bags worth of litter and removed some stone, and then they ran a street sweeper in the area.

#### June 24, 2015 Site Tour (#2385976)

Prior to entering the landfill an odor patrol was conducted. A slight intermittent garbage odor was detected along Applebutter Rd. No other landfill related odors were detected at this time. The weather at this time was 69.9°F, clear, 59% humidity, with a SW wind at 6.9 mph.

At the time of this inspection the Department's Air Quality Program was conducting a surface monitoring inspection.

During the site tour the working face was observed. Working face odors were noted in the immediate area of the working face. Several trucks were observed tipping through the day. The mister line was operating throughout the day. The flare was operating at 1428 scfm and 1658°F, BRE was also in operation. The western slope was viewed; some erosion was noted towards the bottom of the slope, the erosion occurred during a significant rain event during the previous week. Most of the slope had been re-graded but this section needed to dry a little more before equipment could be placed on it.

During surface monitoring, a portion of the northern slope, top, and southern slope of the landfill were covered. While conducting surface monitoring landfill gas odors were detected intermittently. Some erosion and/or washouts were noted at LC-20 (2.50ppm), southeast of EW 4-20 (696ppm), south of EW 4-19 (111-415 ppm), and below EW 4-18 (611 ppm). A mattress was coming through the intermediate cover south of HW 4-23 (590 ppm), and waste (wood, garbage bags, and a tire) was noted coming through the intermediate cover at EW 4-43 (573 ppm). Geotextile was coming through the intermediate cover at the bases of wells EW 4-28 (13.67 ppm), LC-17 (34.55 ppm), and HW 4-17 (717 ppm). Gaps were noted in the soil at the bases of wells EW 4-19 (684 ppm), and EW 4-49 (3012-10,000 ppm).

Twenty-one exceedances were noted during surface monitoring. Refer to the Air Quality report dated June 24 and 29, 2015 (# 2383153) for full details of the surface monitoring inspection.

When the areas noted above were discovered, Mr. Schleyer immediately had crews begin repair work on the slopes. It was also noted that a litter crew was onsite.

#### June 29, 2015 Site Tour (#2385982)

Prior to entering the landfill an odor patrol was conducted, no landfill related odors were detected at this time. The weather at this time was 67.3°F, with a SSE wind at 5.8mph.

During this inspection the areas identified as having exceedances during the June 24, 2015 inspection were re-monitored. It was noted that IESI had made repairs to those areas identified, and that IESI was continuing to add soil and re-grade the southern slope. While walking the southern slope some additional areas were identified that require additional cover, and there was a seep southeast of EW 4-20. Litter also needs to be addressed on the southern slope. The cover soil requires further evaluation as it does not seem to be adequate, and the slopes require stabilization/vegetation.

Of the wells that were re-monitored, ten continue to be in exceedance, and a well that did not have a prior noted exceedance was now in exceedance. Two wells (HW 4-26 and HW 4-12) had gaps at the base. It was noted that soil had been added at the base but following weekend rains it appears to have gapped again. Refer to the Air Quality report dated June 24 and 29, 2015 (# 2383153) for full details of the surface monitoring inspection.

The North Slope road was observed. Crews were making repairs to an erosion channel in the road. The flare was in operation at the time of this inspection, but BRE was down. BRE went down over the weekend.

#### Records Review:

Daily tonnage- Records were reviewed for June 2015. There did not appear to be any exceedances. Highest daily tonnage was 976.38 tpd.

Overweight trucks- Records were reviewed for May and June 2015. IESI recorded 35 overweight trucks for this time period.

Insurance- The policy expires 12/31/15.

Radiation detector calibration- The stationary and handheld detectors calibration expires 6/12/16. Daily background checks- records were reviewed for June 2015 and appear complete.

Radiation hits- Since the last inspection there were no hits.

Scale Calibration- The scale was calibrated on 12/30/14. Mr. Schleyer stated they were expecting the scale to be calibrated that day.

Leachate flow- May 2015- 1,196,974 gallons

Patrol Logs- Copies of the May and June patrol logs are attached.

DEP Staff - Since the last routine inspection the following PA DEP staff have been onsite:

5/19/15- R. Bellas, J. Graham, M. Wejkszner, and A. Schweitzer

6/11/15- S. French

6/16/15- J. Wagoner

#### Complaints

Since the last routine complete inspection at IESI the Department has received 14 complaints. The attached spreadsheet lists data collected for these complaints. In addition, complaints were followed up with an odor patrol conducted by the Department. IESI's daily operations records were reviewed for these dates. No violations were noted regarding these complaints.

#### Additional Comments

IESI representatives met with Department staff on July 7, 2015 to discuss proposed measures to address issues of the South Slope. IESI is proposing a temporary/final cap on 7.5 acres of the South Slope which will include Wind Defender to maintain cap. The wells will be booted along with decommissioning of non-producing wells. Shallow gas collectors are also planned for installation in this area. An additional ~2.5 acres of temporary cap is proposed on the western portion of the South Slope. Cell 4-F will have ~2.8 acres of Final Cap. A Minor Mod is planned for submission within 2 to 3 weeks. Blue Flame is monitoring the well field 2 times per month to identify any gas management issues.

#### Violations

1. IESI failed to operate the landfill in accordance with approved plans and permit, in violation of 25 Pa Code §273.201 (c) (2). (See #2 and #3 Below)

2. IESI failed to maintain intermediate cover so as to prevent odors, and to cover solid waste after it is placed without change in its properties and without regard to weather, in violation of 25 Pa Code §273.233 (b) (1) and (2), and Permit 100030 Part II Section III Condition 3-b. Specifically, slight landfill gas odors were detected in areas of intermediate cover. Also solid waste was visible through the intermediate cover on the southern slope.
  
3. IESI failed to implement the gas control and monitoring plan approved under §273.171 (relating to the gas monitoring and control plan), in violation of 25 PA Code §273.292 (a), and Permit 100020 Part III Section I Condition VII-1. Specifically, settlement was noted at the bases of several wells leaving a gap between the well base and cover soil. A reading between 3,012 and 10,000ppm (Methane) was noted at one of the wells.

This concludes this inspection as violations were noted as indicated above.

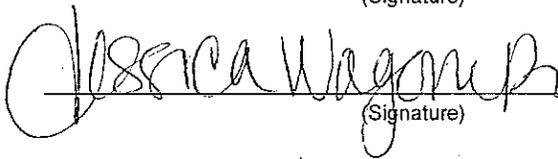


Person Interviewed Sent via Certified Mail 7010 2780 0003 3918 1127

(Signature)

Date \_\_\_\_\_

Inspector



(Signature)

Date 7/14/15

Location: IESI PA Bethlehem Landfill  
Municipality/County: Lower Saucon  
Twp. /Northampton Co.  
Date/Time: 6/24/15 12:00-15:30 hours  
Remarks: Routine partial inspection with  
surface monitoring.  
Photographer: Jessica Wagoner  
Initials: *JW*



Photo #1: Mattress coming through intermediate cover, and litter on slope.



Photo #2: Tire coming through intermediate cover, and litter mixed with cover soil.



Photo #3: Plywood coming through intermediate cover.



Photo #4: Bags of garbage coming through intermediate cover, and litter mixed with cover soil.



Photo #5: Crews adding additional cover soil where solid waste was noted coming through intermediate cover.



Photo #6: Crews adding additional cover soil where solid waste was noted coming through intermediate cover.

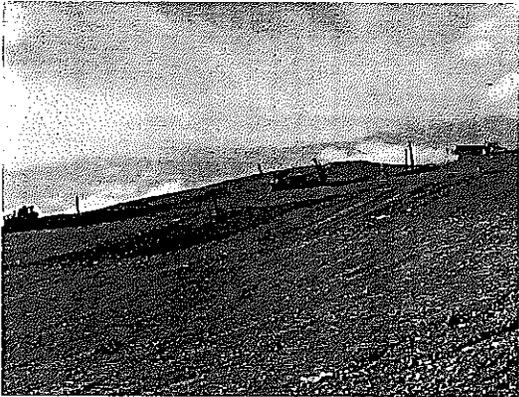


Photo #7: Crews adding additional cover soil where solid waste was noted coming through intermediate cover.



Photo #8: Crews adding additional cover soil where solid waste was noted coming through intermediate cover.

Location: IESI PA Bethlehem Landfill

Municipality/County: Lower Saucon

Twp. /Northampton Co.

Date/Time: 6/29/15 12:00-13:00 hours

Remarks: Routine complete inspection  
with surface monitoring.

Photographer: Jessica Wagoner

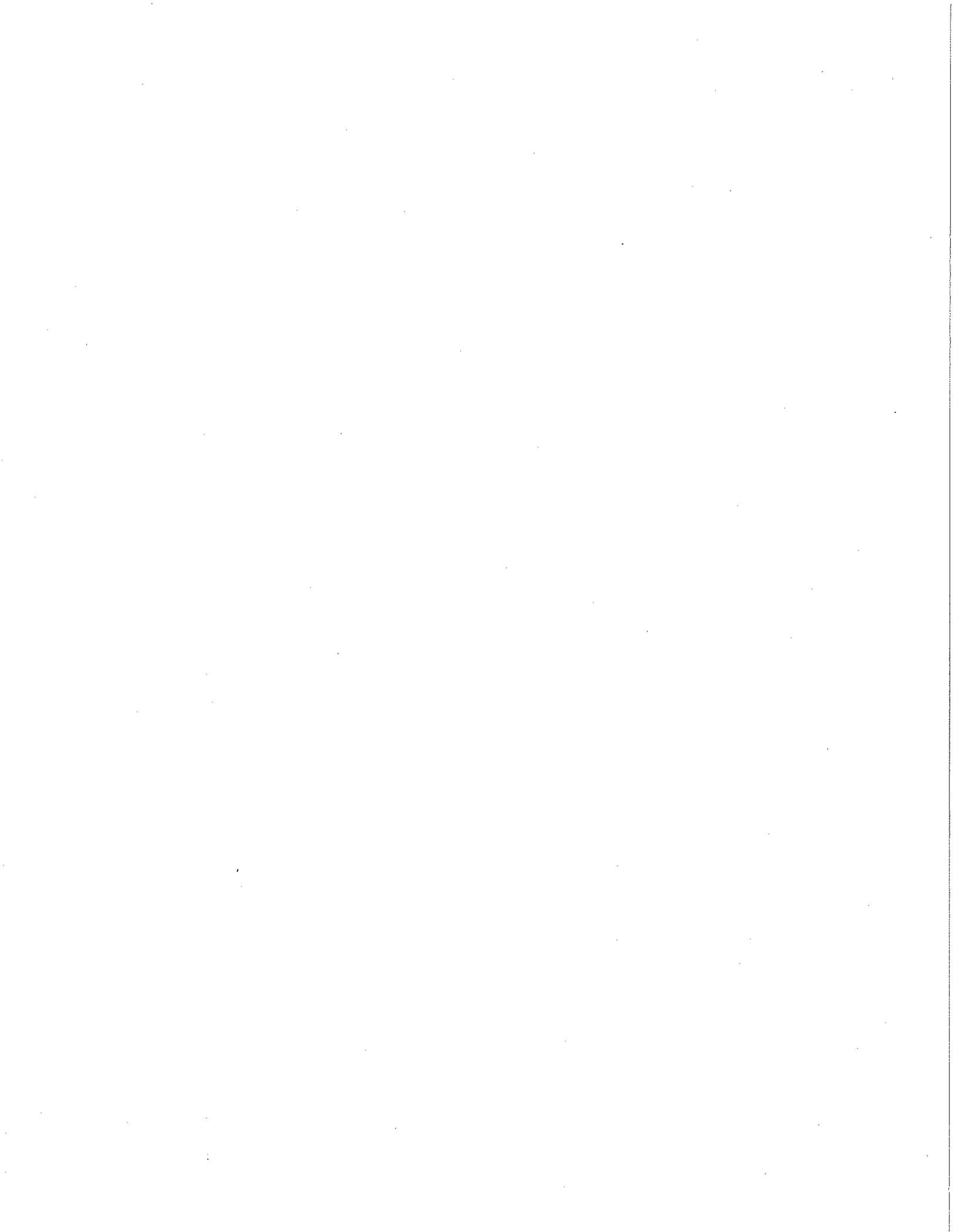
Initials: 



Photo #1: Additional cover added to area where a mattress was coming through the intermediate cover on 6-24-15.



Photo #2: Additional soil added around the base of a well (EW 4-43) and additional cover soil added to area where solid waste was coming through intermediate cover on 6-24-15.



2383821

IESI PA BETHLEHEM LANDFILL  
ODOR PATROL SURVEY

Investigator: Jessica Wagner Date: 01/24/15  
Weather Conditions: 09.9°F, Clear 59% SW @ 10 mph

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
MAWEN ST.	0926	N			
SHIMMERSVILLE	0927	N			
SALAMAN AVE	0929	N			
ROBERTS AVE	0930	N			
MIXSELL AVE	0931	N			
ADAMS AVE	0932	N			
JONASTON AVE	0933	N			
JEFFERSON AVE	0935	N			
RIVERSIDE DR.	0935	N			
FITE AVE.	0935	N			
SCHWAB AVE.	0937	N			
WYWOOD AVE.	0937	N			
SHIMMERSVILLE RD.	0940	N			
APPLEBUSTER RD.	0940	N			
SKYLINE DR.	0943	N			
APPLEBUSTER RD.	0950	SL	I	G	
LOWER SALAMAN RD.	0954	N			
REDINGTON RD.	0958	N			





June 1-4, 2015 Ambient Air Sampling and Odor Patrol Logs

Ambient Sampling Points

#1- Pull off near intersection of Main St. and Shimersville Rd.

N 40° 37.338' W 075° 19.977'

#2- Saucon Ave. cul-de-sac

N 40° 37.586' W 075° 19.477'

#3- Mennonite Church located along Mixsell Ave.

N 40° 37.690' W 075° 19.553'

#4- Steel City Fire Department parking lot

N 40° 37.875' W 075° 19.634'

#5- Bike Hill Climb

N 40° 37.785' W 075° 18.871'

#6- Pull off at intersection of Riverside Dr. and Redington Rd.

N 40° 38.318' W 075° 17.574'

#7- Kingston Park

N 40° 37.428' W 075° 16.977'

#8- Pull off at Self Storage located along Applebutter Rd.

N 40° 37.356' W 075° 18.110'

#9- Dead end of Skyline Dr.

N 40° 37.327' W 075° 18.875'

#10- Pull off near intersection of Applebutter Rd. and Shimersville Rd.

N 40° 37.120' W 075° 19.956'

Case Name: 1ES1

# Air Monitoring Data



**Pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

23TU141

Specialist(s): J. Magones / A. Fowler

Date: 6/1/15

PADEP Northeast Region

Time	Location	Lat	Long	Met Data	%LEL	%O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 1240	Fire Dept. (#4)			76.40°F Wind 06 ENE	0	20.8	0	0	1.56	0.49	No odor
2 1254	Skyline Dr. (#9)			65.30°F Wind 10 WNW	0	20.8	0	0	3.49	2.35	Slight LF6
3 1259	Applebutter (#10)			68.00°F Wind 0	0	20.8	0	0	2.23	2.85	No odor.
4 1304	Saucan Rd. (#2)			67.20°F Wind 0	0	20.8	0	0	1.18	4.54	No odor.
5 1308	Memonite Church (#3)			65.80°F Wind 1.8 WNW	0	20.8	0	0	1.38	2.01	No odor
6 1314	Fire Dept (#4)			66.90°F Wind 1.8 SE	0	20.8	0	0	1.24	1.88	No odor.
7 1319	Bike Climbs (#5)			64.20°F Wind 0	0	20.8	0	0	2.20	2.06	No odor
8 1323	Riverside (#6)			66.00°F Wind 0	0	20.8	0	0	1.40	1.82	No odor
9 1329	Kingston Park (#7)			67.20°F Wind 0	0	20.8	0	0	1.08	1.01	No odor
10 1334	SELESTAY (#8)			64.90°F Wind 2.0 SSE	0	20.8	0	0	1.40	1.10	No odor
11 1350	Skyline C (#9)			65.10°F Wind 2.0 NW	0	20.8	0	0	3.41	0.85	Slight garage LF9
12 1354	Applebutter Rd. (#10)			66.50°F Wind 0	0	20.8	0	0	1.76	0.91	No odor
13 1357	Shinersville (#1)			66.50°F Wind 0.8 SW	0	20.8	0	0	1.16	0.90	No odor
14 1359	Saucan Ave (#2)			66.40°F Wind 0	0	20.8	0	0	1.17	0.76	No odor
15 1403	Memonite (#3)			66.90°F Wind 1.0 S	0	20.8	0	0	1.11	0.68	No odor

Instruments(s): <sup>Foxboro</sup> TNA-1000A & MSA Sinus Multi-gas Detector

Serial Number: See Comments

Calibration Gas: See Comments

Date Calibrated: 6/1/15

**AQ/WMM Programs**



Comments:  
 windmate Wm-200 Serial #12151  
 Foxboro TNA-1000A - AAFAZ-ABD  
 Serial # 66068g  
 Calibration gas:  
 Isobutylene 100ppm  
 Methane 500ppm  
 Air zero THC 41ppm

MSA Sinus Multi-gas Detector  
 Serial # 1001484  
 Calibration gas:  
 SPAN gas  
 Isobutylene 100ppm

# Air Monitoring Data

Case Name: IES1

Specialist(s): J. Waggoner / A. Faulch Date: 6/1/15



2370141

PADEP Northeast Region

Time	Location	Lat	Long	Met. Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1	1411 Fire Dept (#4)			05.8 of wind 1.2 NE	0	20.8	0	0	1.10	0.58	No odor
2	1416 Bike Club (#5)			05.10 F wind 4.5 S	0	20.8	0	0	1.27	0.65	No odor
3	1420 Riverside (#6)			wind 0	0	20.8	0	0	0.57	0.52	No odor
4	1429 Kingston Park (#7)			06.50 F wind 0	0	20.8	0	0	0.92	0.47	No odor
5	1434 Self Storage (#8)			05.04 F wind 0	0	20.8	0	0	1.0	0.52	No odor
6	1443 Skyline (#9)			04.40 F wind 1.9 WSW	0	20.8	0	0	0.51	0.95	grape odor
7											
8											
9											
10											
11											
12											
13											
14											
15											

Instrument(s): see page 1

Serial Number: \_\_\_\_\_

Calibration Gas: \_\_\_\_\_

Date Calibrated: \_\_\_\_\_

**AQ/WMM Programs**
**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Comments: \_\_\_\_\_

2376141

Investigator: A. Faulen / J. Madonell Date: 6/11/15  
 Weather Conditions: 76°F, Wind O. & ENE

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Shinersville Rd.	1247	SL	I	O	Woodburning
Applebutter Rd.	1249	N			
Skyline Dr.	1253	SL	I	LFG	
Applebutter Rd.	1259	N			
Shinersville Rd.	1302	N			
Saucun Ave.	1304	N			
Roberts Ave.	1306	N			
Snyder Ave.	1306	N			
Mathews Ave.	1307	N			
Mixsell Ave.	1307	N			
Adams Ave.	1310	N			
Johnston Ave.	1311	SL	P	O	Woodburning - resident burning
Snyder Ave.	1311	N			
Schwab Ave.	1313	SL	I	O	Woodburning
Adams Ave.	1314	N			
Riverside Dr.	1317	N			
Riverside Dr.	1321	N			No odor noted, but active burn barrel noted.
Redington Rd.	1326	N			

2576141

Investigator: A. Fawcett / S. Wagoner Date: 6/11/15  
 Weather Conditions: \_\_\_\_\_

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR		DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
		INTENSITY S = Strong M = Moderate SL = Slight N = None	DURATION P = Persistent I = Intermittent N = None		
Lower Saucon Rd.	1328	N			
Applebutter Rd.	1328	N			
Country Side Ln.	1329	N			
Limpar Lane	1329	N			
Applebutter Rd.	1334	N			
Ringhofer Rd.	1337	N			
Sherry Hill Rd.	1340	N			
Applebutter Rd.	1343	N			
Skyline Dr.	1349	SL	I	G/LFG	
Applebutter Rd.	1354	N			
Shinersville Rd.	1357	N			
Saucon Ave.	1359	N			
ROBERTS AVE	1401	N			
Snyder Ave	1402	N			
Mathews Ave.	1402	N			
Mixsell Ave.	1403	N			
Adams Ave.	1405	N			
Johnston Ave.	1406	M	P	O	residual burning - woodburning

2570141

Investigator: A. Fausch / S. Waggoner Date: 6/1/15  
 Weather Conditions: \_\_\_\_\_

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Snyder Ave.	1407	SL	I	O	woodburning
Soward Ave	1409	SL	I	O	woodburning
Adams Ave	1409	N			
Dhirston Ave.	1409	N			
Jefferson Ave	1410	N			
Riverside Dr.	1410	N			
Riverside Dr.	1423	N			
Redington Rd.	1426	N			burn barrel - smoking
Lower Saucon Rd.	1428	N			
Applebutter Rd.	1428	N			
Countryside Ln	1429	N			
Limpax	1429	N			
Applebutter Rd.	1434	N			
Skyline Dr.	1441	SL	I	O	grape odor - misters running
Applebutter Rd					

2376141

# Surface Methane Monitoring Calibration Form



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Site: IESI Community

Date: 6/1/15

Model: TVA-1000

Serial #: 660688

Weather: Overcast, 62.1°F

Wind: 10.4 ENE

Zero Accepted (Y/N): Y

Span Accepted (Y/N): Y

### Response Time (450 ppm)

T<sub>1</sub>: 4.24 sec

T<sub>2</sub>: 5.60 sec

T<sub>3</sub>: 5.18 sec

Avg Response: 5.00 sec

Ok if response is <30 sec

### Calibration Precision (500 ppm)

R<sub>1</sub>: 475 ppm

R<sub>2</sub>: 471 ppm

R<sub>3</sub>: 472 ppm

$$\frac{25 \quad 29 \quad 28}{|500-R_1| + |500-R_2| + |500-R_3|}{3(500)} \times 100 = \underline{5.4} \%$$

Ok if deviation is <10%

Calibrated by: Amy Fauch

# Air Monitoring Data

2370142



PADEP Northeast Region

Case Name: LES1

Specialist(s): J. Wagner / A. Fackel

Date: 6/2/15

Time	Location	Lat	Long	Met. Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 835	Shimersville (#1)			52.3°F wind 1.3 W	0	20.8	0	0	1.34	0.06	no odor
2 840	Saucun (#2)			54.1°F wind 0	0	20.8	0	0	1.55	0.09	no odor
3 845	Mennonite Church (#3)			53.4°F wind 0.3 WSW	0	20.8	0	0	1.93	0.12	no odor
4 853	Fire Co. (#4)			53.6°F wind 1.7 SSW	0	20.8	0	0	1.77	0.12	no odor
5 858	Bike Hill Climb (#5)			53.4°F wind 0.6 SW	0	20.8	0	0	2.12	0.14	no odor
6 903	Riverside x Redington (#6)			55.4°F wind 0	0	20.8	0	0	1.80	0.14	no odor
7 911	Kingston Park (#7)			57.3°F wind 1.3 ENE	0	20.8	0	0	1.45	0.11	slight wood burning odor
8 918	Self Storage (#8)			57.7°F wind 0.4 WNW	0	20.8	0	0	1.68	0.15	no odor
9 933	Skyline (#9)			59.5°F wind 0.3 W	0	20.8	0	0	4.20	0.14	moderate "grape" odor, very light garbage odor.
10 943	Appleby's Roll-off (#10)			57.9°F wind 0.3 WSW	0	20.8	0	0	1.43	0.20	no odor
11 949	Shimersville (#11)			56.8°F wind 0	0	20.8	0	0	1.39	0.16	no odor
12 953	Saucun (#12)			58.8°F wind 0	0	20.8	0	0	1.42	0.14	no odor
13 958	Mennonite Church (#13)			56.8°F wind 0.3 SE	0	20.8	0	0	1.40	0.16	no odor
14 1002	Fire Co. (#14)			56.8°F wind 0.1 SE	0	20.8	0	0	1.55	0.15	no odor
15 1006	Bike Hill Climb (#15)			55.2°F wind 0	0	20.8	0	0	1.60	0.14	no odor

Instruments): Foxboro TVA-1000A & MSA

Serial Number: see comments

Calibration Gas: see comments

Date Calibrated: 6/2/15

**AQ/WM Programs** **pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Comments:  
 WINDmate 12797 SERIAL # :  
 Foxboro TVA-1000 A - AATAZ-ABD  
 Serial # 660C88  
 Calibration gas:  
 Isobutylene 100 ppm  
 Methane 500 ppm  
 Air zero THC 41 ppm  
 MSA Sirius MultiGas Detector  
 Serial # 1001484  
 Calibration gas:  
 SPAN gas  
 Isobutylene 100 ppm

# Air Monitoring Data



2574142

Case Name: LES1

PADEP Northeast Region

Specialist(s): J. Waggoner / A. Faulch Date: 6/2/15

Time	Location	Lat	Long	Met. Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 1015	Riverside Redington (#6)			57.0°F wind 0	0	20.8	0	0	1.42	0.13	no odor
2 1020	Kingston (#7)			54.5°F wind 0	0	20.8	0	0	1.23	0.12	no odor
3 1026	Self Storage (#8)			55.2°F wind 0	0	20.8	0	0	1.30	0.15	no odor
4 1033	Skyline (#9)			56.3°F wind 0.5 W	0	20.8	0	0	4.70	0.15	Moderate "grape" odor light gas bag odor
5 1043	Applebutter Rolloff (#10)			54.8°F wind 0.6 ESE	0	20.8	0	0	1.50	0.17	no odor
6 1108	Shiversville (#1)			57.3°F wind 1.3 WSW	0	20.8	0	0	1.15	0.15	no odor
7 1112	Saucan (#2)			59.9°F wind 0	0	20.8	0	0	1.10	0.16	no odor
8 1116	Mennonite Church (#3)			57.3°F wind 0.1 ESE	0	20.8	0	0	0.75	0.14	no odor
9 1122	Fire Co. (#4)			58.2°F wind 0.3 S	0	20.8	0	0	1.05	0.15	no odor
10 1125	Bike Hill Climb (#5)			57.3°F wind 0	0	20.8	0	0	1.10	0.15	no odor
11 1130	Riverside x Redington (#6)			57.2°F wind 0.4 SSW	0	20.8	0	0	0.90	0.14	no odor
12 1137	Kingston (#7)			53.7°F wind 0.9 SSW	0	20.8	0	0	1.13	0.13	light wood burning odor
13 1144	Self Storage (#8)			59.7°F wind 0	0	20.8	0	0	0.70	0.15	no odor
14 1153	Skyline (#9)			58.6°F wind 0	0	20.8	0	0	2.00	0.16	light-gas odor
15 1200	Applebutter Rolloff (#10)			57.2°F wind 0.1 W	0	20.8	0	0	0.90	0.18	no odor

Instrument(s): See page 1

Serial Number: See page 1

Calibration Gas: See page 1

Date Calibrated: 6/2/15

Comments:



# Air Monitoring Data



Pennsylvania  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

23749142

Case Name: LES1

PADEP Northeast Region

Specialist(s): J. Waggoner / A. Faulch Date: 6/2/15

Time	Location	Lat	Long	Met Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 1428	Riverside Bedlington (#6)			58.6°F wind 0	0	21.2	0	0	0.65	0.22	no odor
2 1436	Kingston Park (#7)			57.7°F wind 0.7 WNW	0	20.8	0	0	0.60	0.20	no odor
3 1441	Self Storage (#8)			60°F wind 0.1 SW	0	21.2	0	0	0.51	0.20	no odor
4 1448	SKYLINE (#9)			57.2°F wind 0.1 S	0	21.2	0	0	3.05	0.21	light garbage-odor
5 1454	Applebutter Puff (#10)			59.0°F wind 0.6 E	0	21.2	0	0	0.48	0.20	very light sewage odor
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

Instrument(s): See page 1

Serial Number:

Calibration Gas:

Date Calibrated: 6/2/15

AQ/WM Programs



Pennsylvania  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Comments:

2376142

Investigator: J. Wagner / A. Fackel Date: 6/2/15  
 Weather Conditions: Rain, 52.3°F, wind 1.3 W

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Skimmersville	8:35	N			
Sauccon	8:38	N			
Roberts	8:44	N			
Snyder	8:45	N			
Mathews	8:45	N			
Mixsell	8:45	N			
Adams	8:48	N			
Johnston	8:49	N			
Snyder	8:50	N			
Schwab	8:50	N			
Fritz	8:52	N			
Mathews	8:53	N			
Riverside	8:56	N			
Redington	9:05	N			
Linn Sauccon Rd	9:08	N			
Applebutter Rd	9:09	N			
Countryside	9:10	M	P	O	Wood burning odor
Limpar	9:11	SL	I	O	Wood burning odor

1

2

237607412

Investigator: J. Wagoner / A. Fawcok

Date: 6/2/15

IESI PA BETHLEHEM LANDFILL  
ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Countryside	915	SL	1	O	very light wood burning odor
Applebutter	916	N			
Ringhofer	920	N			
Sherry Hill	922	N			
Applebutter	925	SL	1	O/LFG	very light wood burning odor light gas odor west of landfill entrance
Skylive	930	SL/M	1	O/G	very light garbage odor & moderate "grape" odor at end of skylive. IESI misters running
Applebutter	943	N			
Shimersville	948	N			

2376142

Surface Methane Monitoring  
Calibration Form



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Site: IES1

Date: 6/2/15

Model: TVA-1000

Serial #: 660688

Weather: 48.5°F, overcast

Wind: 6.9 N

Zero Accepted (Y/N): yes

Span Accepted (Y/N): yes

Response Time (450 ppm)

T<sub>1</sub>: 3.91 sec

T<sub>2</sub>: 4.10 sec

T<sub>3</sub>: 3.80 sec

Avg Response: 3.96 sec

Ok if response is <30 sec

Calibration Precision (500 ppm)

R<sub>1</sub>: 499 ppm

R<sub>2</sub>: 498 ppm

R<sub>3</sub>: 499 ppm

$$\frac{|500-R_1| + |500-R_2| + |500-R_3|}{3(500)} \times 100 = \underline{0.26}\%$$

Ok if deviation is <10%

Calibrated by: Jessica Wagoner

1.86 ppm BDO  
08:09 HR

# Air Monitoring Data



PADEP Northeast Region

Case Name: **TEST**

Specialist(s): **Tara Quinlan, Todd Shires**

Date: **6/3/2015**

Time	Location	Lat	Long	Met Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odom
1 9:13	Site 1			55° Overcast NE 4 mph	0	20.8	0	0	1.56	0.13	none
2 9:17	Site 2			58° Overcast CALM 0 mph	0	20.8	0	0	1.89	0.15	None
3 9:21	Site 3			58.2° Overcast N 1 mph	0	20.8	0-3	0	1.93	0.15	SL+I Wood burning or combustion on odor
4 9:25	Site 4			59.3° Overcast CALM 0 mph	0	20.8	0	0	1.93	0.15	None
5 9:28	Site 5			58.3° Overcast CALM 0 mph	0	20.8	0	0	1.76	0.16	None
6 9:33	Site 6			58.4° Overcast W 1 mph	0	20.8	0	0	1.70	0.16	SL+I (moderate) vehicle exhaust (moderate)
7 9:41	Site 7			55.7° Overcast NNW 1.5 mph	0	20.8	0	0	1.78	0.12	None
8 9:46	Site 8			55.9° Overcast NE 2.5 mph	0	20.8	0	0	1.61	0.13	None
9 9:53	Site 9			56° Overcast N 5.8 mph	0	20.8	0	0	2.31	0.14	None
10 9:55	Site 9			56.3° Overcast N 1.6 mph	0	20.8	0	0	5.50 - 6.50	0.15	SL to M + I 100% vehicle exhaust
11 10:00	Site 10			56.9° Overcast NNW 1.4 mph	0	20.8	0	0	1.78	0.14	None
12 10:02	Site 1			57.2° Overcast NNW 1.6 mph	0	20.8	0	0	1.84	0.17	None
13 10:05	Site 2			60.7° Overcast NNW 1 mph	0	20.8	0	0	1.47	0.15 - 0.16	SL+I vehicle exhaust (near roadway)
14 10:21	Site 3			59.7° Overcast NE 1 mph	0	20.8	0	0	1.31	0.13	None
15 10:25	Site 4			59.1° Overcast N 1.1 mph	0	20.8	0	0	1.29	0.15	None

*Handwritten notes:*  
 - Site 1-5: "off road"  
 - Site 6-7: "off road"  
 - Site 8-10: "Ambient Sampling Points"  
 - Site 11: "off road"

**Comments:** 9:48 AM woodburning odor traveling west on Applebutter Road

Background: OFFICE/BDO FID = 1.52 ppm  
 0 ppm PID = 1.76 ppm

I = intermittent, P = Persistent, SL = Slight or light, M = Moderate, S = Strong

**Instrument(s):** Foxboro TVA 1000 (FID + PID)  
 TVA Sirius MultiGas Meter (LEL, O<sub>2</sub>, CO, H<sub>2</sub>S)

**Serial Number:** Foxboro TVA: 660688 ANFA2-ABD  
 SIRIUS: 1001484

**Calibration Gas:** Foxboro TVA: Isobutylene 100 ppm, Air Zero  
 Methane 500 ppm, The City ppm, Isobutylene

**Date Calibrated:** 6/3/2015



Pennsylvania  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION

Case Name: TEST

Air Monitoring Data



PADEP Northeast Region

Specialist(s): Quinklan / Sines Date: 6/3/2015

Time	Location	Lat	Long	Met. Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> (ppm)	FID(ppm)	PID(ppm)	Odors
1 10:28	Site 5			59.1° Overcast NNE 1 mph	0	20.8	0	0	1.24	0.14	SLTI grass odor (Field being mowed)
2 10:33	Site 6			59° Overcast N 1 mph	0	20.8	0	0	1.25	0.15	SLTI Floral-like odor
3 10:44	Site 7			58.1° Overcast NNE 1 mph	0	20.8	0	0	0.89	0.14	None
4 10:57	Site 8			60.1° Overcast NW 3.5 mph	0	20.8	0	0	0.95	0.15	None
5 11:04	Site 9			59.6° Overcast NNW 10.4 mph	0	20.8	0	0	3.31	0.16	SLTI working grass odor m. xed with
6 11:26	Site 10			60.5° Overcast NNW 3.5 mph	0	20.8	0	0	0.67	0.17	None
7 11:29	Site 1			60.4° Overcast NNW 9.2 mph	0	20.8	0	0	0.80	0.16	None
8 11:33	Site 2			60.7° Overcast NNE 2 mph	0	20.8	0	0	0.94	0.17	None
9 11:37	Site 3			60.4° Overcast NNE 1 mph	0	20.8	0	0	0.71	0.16	None
10 11:39	Site 4			60.4° Overcast NNE 1 mph	0	20.8	0	0	0.86	0.18	None
11 11:42	Site 5			60.5° Overcast N 1 mph	0	20.8	0	0	0.96	0.16	SLTI grass and mower exhaust (mowing)
12 11:47	Site 6			60.7° Overcast SE 1.1 mph	0	20.8	0	0	0.77	0.18	None
13 11:54	Site 7			61.1° Overcast NNE 8 mph	0	20.8	0	0	0.76	0.17	None
14 11:59	Site 8			61.4° Overcast N 3.5 mph	0	20.8	0	0	0.80	0.17	None
15 12:08	Site 9			62.1° Overcast CALM or m. light	0	20.8	0	0	3.00 - 5.50	0.19	SLTI working face, landfill gas and grass

of page

Location

Instrument(s):

Serial Number: See page 1

Calibration Gas:

Date Calibrated:

AQ/WMM Programs



Comments: • At 10:58 AM SLTI working face and landfill gas odor while traveling west on Applebutter Rd after landfill and B&E until reached farm on Applebutter, then SL-MTP measure/agricultural odor  
 • At 12:01 - 12:42 PM SL-MTP working face and landfill gas odor while traveling west on Applebutter Rd after landfill + B&E until reached farm on Applebutter Rd, then SL-MTP measure/agricultural odor  
 • At 12:05 PM traveling east on Skyline Dr prior to Hudson Lane detour above road SLTI working face, landfill gas, and grass odor

# Air Monitoring Data



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Northeast Region

Case Name: TEST  
Specialist(s): Quinnivan Shires Date: 6/8/15

Time	Location	Lat	Long	Met Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 12:15	Site 10			61.9° Cloudy NE 2 mph	0	20.8	0	0	0.81	0.18	none
2 13:18	Site 1			64° Partly Cloudy NNE 2 mph	0	20.8	0	0	1.34	0.15	none
3 13:21	Site 2			64.5° Partly Cloudy NNE 2 mph	0	20.8	0	0	1.45	0.15	none
4 13:24	Site 3			64.5° Partly Cloudy NNE 2 mph	0	20.8	0	0	1.27	0.14	none
5 13:27	Site 4			64.9° Partly sunny CALM gusts	0	20.8	0	0	1.47	0.12	none
6 13:30	Site 5			65° Partly Clear CALM dr. PA	0	20.8	0	0	1.38	0.13	none
7 13:35	Site 6			66.3° Partly Clear NNW 2 mph	0	20.8	0	0	1.20	0.13	none
8 13:42	Site 7			66.5° Partly Clear NNW 2 mph	0	20.8	0	0	1.08	0.13	none
9 13:55	Site 8			66° Partly Sunny SNE 2 mph	0	20.8	0	0	1.40	0.16	none
10 14:03	Site 9			66.4° Partly Sunny SNE 2 mph	0	20.8	0	0	3.46	0.17	STI lead/fill/gas and backing trace odors
11 14:12	Site 10			68° Partly Sunny SSE 2 mph	0	20.8	0	0	1.00	0.17	none
12 14:15	Site 1			68.8° Partly Sunny NNE 2 mph	0	20.8	0	0	0.89	0.18	none
13 14:18	Site 2			68.8° Partly Sunny NNE 2 mph	0	20.8	0	0	0.90	0.18	none
14 14:22	Site 3			68.9° Partly Sunny NNW 2 mph	0	20.8	0	0	0.91	0.16	none
15 14:26	Site 4			69.4° Partly Clear NNW 2 mph	0	20.8	0	0	0.75	0.15	none

copy of  
VOC page

Comments: At 13:49 (1:49 PM) -

Specialist in vehicle applied hand sanitizer to hands and VOC on Sirius alarm went off - immediately placed Sirius outside of vehicle in ambient air and alarm stopped / VOC dropped to background

At 13:58 (1:58 PM) traveling west on Applebutter Rd. detected STI lead/fill/gas odor past landfill TBEs until reached farm and detected SL+I manure/signature odor

At 14:16 (2:10 PM) SL+I Sewage-like odor detected at intersection of Shinnestille Rd. and Applebutter Rd.



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

AQ/WMM Programs

Instrument(s):  
Serial Number:  
Calibration Gas: See pg. 1  
Date Calibrated:  
FID, PID, U-gas did not appear elevated  
TR

# Air Monitoring Data



Case Name: TEST

PADEP Northeast Region

Specialist(s): Quinnivan / Stires

Date: 6/3/2015

Time	Location	Lat	Long	Met. Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 14:30	Site 5			69.3° Mostly Clear NW 5 mph	0	20.8	0	0	0.69	0.19	none
2 14:34	Site 6			69.3° Mostly Clear NW 3 mph	0	20.8	0	0	0.75	0.18	none
3 14:43	Site 7			69.8° Mostly Clear N 4 mph	0	20.8	0	0	0.45	0.18	none
4 14:49	Site 8			69.2° Mostly Clear WSW 2 mph	0	20.8	0	0	0.50	0.18	none
5 14:57	Site 9			68.5° Mostly Clear S mph NE	0	20.8	0	0	0.61	0.19	placid and hazy odor like odor SL+I
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

Instrument(s):

Serial Number: See pg. 1

Calibration Gas:

Date Calibrated:

AQ/WM Programs



Comments: • 14:32 (1:32 pm) Creosote odor SL+I along Riverside Dr. traveling east near railroad  
 • 14:48 (2:48 pm) SL+I working face odor, then SL+I H<sub>2</sub>S like odor traveling west on Applebutter Rd. prior to Site 8 (east/south of landfill); O<sub>2</sub> was 21.4% and FID did not appear elevated above background (H<sub>2</sub>S was O ppm also)

14:52 (2:52 pm) SL+I Rural/honeyuckle-like odor traveling west on Applebutter Rd. after landfill/BKE. Did NOT detect landfill gas (working face or manure) agricultural odor on this stretch of Applebutter this time around.

Surface Methane Monitoring  
Calibration Form



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Site: IESI/Community

Date: 6/3/2015

Model: TVA - 1000 Foxboro AFAZ-ABD

Serial #: 660688

Weather: ENE 3mph, 57°F  
overcast 87% humidity  
at 8:30 AM

Wind: 8:30 AM = ENE 3mph

Zero Accepted (Y/N): Y

Span Accepted (Y/N): Y

Response Time (450 ppm)

T<sub>1</sub>: 5 sec

T<sub>2</sub>: 5 sec

T<sub>3</sub>: 5 sec

Avg Response: 5 sec

✓ (Ok) if response is <30 sec

Calibration Precision (500 ppm)

R<sub>1</sub>: 510 ppm

R<sub>2</sub>: 500 ppm

R<sub>3</sub>: 505 ppm

$$\frac{|500-R_1| + |500-R_2| + |500-R_3|}{3(500)} \times 100 = \frac{15}{1500} \times 100 = 1\%$$

✓ (Ok) if deviation is <10%

Calibrated by: Quintivan/Stines

Case Name: IESI

Air Monitoring Data



2370144

Specialist(s): J. Waggoner/A. Faulch Date: 6/4/15

PADEP Northeast Region

Time	Location	Lat	Long	Met. Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 8 <sup>26</sup>	Kingston Park (#7)			01.10°F Wind 2.9 N	0	20.7	0	0	1.51	0.20	No odor
2 0835	Self Storage (#8)			01.10°F Wind 0	0	20.8	0	0	2.00	0.18	No odor
3 0849	Skyline (#9)			00.80°F Wind 0.0 NE	0	20.8	0	0	2.59	0.22	Slight nagsucker
4 0854	Applebutter (#10)			00.90°F Wind 0	0	20.8	0	0	1.48	0.20	No odor
5 0858	Shinersville (#1)			01.50°F Wind 0	0	20.8	0	0	1.07	0.21	No odor
6 0901	Saucon (#2)			02.40°F Wind 0	0	20.8	0	0	1.82	0.20	No odor
7 0904	Merrimack (#3)			01.20°F Wind 0.2 NE	0	20.8	0	0	2.01	0.20	No odor
8 0913	Fire Dept (#4)			00.40°F Wind 2.4 SE	0	20.8	0	0	1.46	0.20	No odor
9 0920	BikeClimb (#5)			02.00°F Wind 0.9 WSW	0	20.8	0	0	1.82	0.20	No odor
10 0933	Riverside (#10)			02.40°F Wind 0.5 ENE	0	20.8	0	0	1.09	0.21	No odor
11 0940	Kingston Park (#7)			01.10°F Wind 0.2 N	0	20.8	0	0	1.49	0.22	No odor
12 0945	Self Storage (#8)			01.70°F Wind 0.4 SE	0	20.8	0	0	1.31	0.21	No odor
13 0953	Skyline (#9)			01.80°F Wind 0.5 N	0	20.8	0	0	2.20	0.20	No odor
14 0958	Applebutter (#10)			01.70°F Wind 1.8 NE	0	20.8	0	0	1.56	0.21	No odor
15 1001	Shinersville (#1)			03.10°F F.2 NNE	0	20.8	0	0	2.08	0.21	No odor

Instrument(s): Foxboro TVA-1000 # MSA

Serial Number: See comments

Calibration Gas: See comments

Date Calibrated: 6/4/15

AQ/WM Programs Pennsylvania

Comments:  
 Windmate Serial # 12151  
 Foxboro TVA1000A-AAFAZ-ABD  
 Serial # 600088  
 Calibration gas:  
 Isobutylene 100ppm  
 Methane 500ppm  
 Air zero THC 21ppm  
 MSA Sirius multi gas detector  
 Serial # 1001484  
 Calibration gas:  
 Span gas  
 Isobutylene 100ppm

# Air Monitoring Data



2370144

Case Name: LES1

Specialist(s): JW/AF

Date: 6/4/15

PADEP Northeast Region

Time	Location	Lat	Long	Met. Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1	10015 SAUCON (#2)			W3.1°F W3.0 NW Wind 3.0 NE	0	20.8	0	0	1.80	0.20	Slight sour odor. 100% H <sub>2</sub>
2	10110 MEMMONITE (#3)			W3.1°F Wind 3.0 NE	0	20.8	0	0	1.37	0.19	Cutgrass
3	10115 FIRE DEPT (#4)			W1.7°F Wind 2.0 NE	0	20.8	0	0	1.92	0.19	No odor
4	10221 BIKE CLIMB (#5)			W4.4°F Wind 0.5 NNW	0	20.8	0	0	1.53	0.22	No odor
5	10216 RIVERSIDE (#6)			W2.9°F Wind 0.4 SE W3.6°F Wind 0	0	20.8	0	0	1.36	0.18	No odor
6	1034 KINGSTON PARK (#7)			W4.9°F Wind 0	0	20.8	0	0	1.40	0.00	No odor
7	10410 SELF STORAGE (#8)			W3.8°F Wind 0.5 SE	0	20.8	0	0	1.33	0.21	No odor
8	10516 SKYLINE (#9)			W6.7°F Wind 0	0	20.8	0	0	1.83	0.20	No odor
9	1103 APPLEBUCKER (#10)			W5.8°F Wind 3.1 NE	0	20.8	0	0	1.02	0.23	No odor
10	1105 SNIMERSVILLE (#11)			W4.4°F Wind 0.5 ESE	0	20.8	0	0	1.38	0.22	No odor
11	1109 SAUCON (#12)			W5.3°F Wind 4.0 NNE	0	20.8	0	0	1.29	0.21	No odor
12	1115 MEMMONITE (#13)			W4.6°F Wind 1.0 ESE	0	20.8	0	0	1.15	0.22	No odor
13	1118 FIRE DEPT (#14)			W4.8°F Wind 0	0	20.8	0	0	1.29	0.25	No odor
14	1122 BIKE CLIMB (#15)			W0.3°F Wind 3.2 ENE	0	20.8	0	0	1.54	0.22	No odor
15	1128 RIVERSIDE (#16)										

Instrument(s): See  
 Serial Number: See page  
 Calibration Gas: See page  
 Date Calibrated: 6/1

AQ/WMI Programs



Air Monitoring Data



2374144

Case Name: IES1

Specialist(s): JW/AE

Date: 6/4/15

PADEP Northeast Region

Time	Location	Lat	Long	Met Data	% LEL	% O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1 1250	Kingsman Park (#7)			71.7 °F Wind 1.2 SSE	0	20.8	0	0	0.89	0.30	ND odor
2 1254	Self Storage (#8)			69.0 °F Wind 0.2 ESE	0	20.8	0	0	0.85	0.29	NO odor
3 1303	Skyline (#9)			71.9 °F Wind 2.8 NE	0	20.8	0	0	0.94	0.27	Hydrocarbon/Floral
4 1309	Applebutter (#10)			70.8 °F Wind 2.4 ESE	0	21.2	0	0	1.07	0.28	NO odor
5 1311	Shimmersville (#1)			72.3 °C Wind 0.9 SSW	0	20.8	0	0	1.02	0.29	NO odor
6 1315	Saucon (#2)			71.7 °F Wind 0.8 SSW	0	20.8	0	0	1.14	0.29	NO odor
7 1318	Memmonite (#3)			71.2 °F Wind 0.8 ENE	0	21.2	0	0	1.09	0.28	NO odor
8 1325	Fire Dept (#4)			72.6 °F Wind 4.1 S	0	21.2	0	0	0.90	0.29	NO odor
9 1329	Bike Climbo (#5)			71.4 °F Wind 0.6 WSW	0	20.9	0	0	0.88	0.27	NO odor
10 1334	Riverside (#6)			70.8 °F Wind 1.4 E	0	20.8	0	0	1.01	0.29	NO odor
11 1341	Kingsman Park (#7)			70.3 °F Wind 5.5 S	0	20.8	0	0	1.01	0.28	NO odor
12 1347	Self Storage (#8)			71.2 °F Wind 0.8 S	0	21.2	0	0	0.89	0.27	NO odor
13 1353	Skyline (#9)			72.3 °F Wind 2.3 ESE	0	20.8	0	0	0.74	0.25	hydrocarbon/floral
14 1400	Applebutter (#10)			69.0 °F Wind 2.9 E	0	20.9	0	0	0.92	0.27	NO odor
15 1402	Shimmersville (#1)			73.4 °F Wind 0.2 WSW	0	20.8	0	0	1.10	0.28	NO odor

Instrument(s): Se  
 Serial Number:  
 Calibration Gas:  
 Date Calibrated:

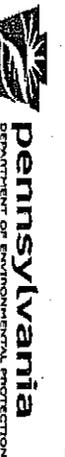
AQ/WM Programs



page 1

Comments:  
 Windmate

# Air Monitoring Data



2370144

Case Name: IESI

PADEP Northeast Region

Specialist(s): JW/AE

Date: 6/4/15

Time	Location	Lat	Long	Met. Data	%LEL	%O <sub>2</sub>	CO (ppm)	H <sub>2</sub> S (ppm)	FID (ppm)	PID (ppm)	Odors
1	1400 SAUCON (#2)			08.7°F Wind 3.3N	0	20.8	0	0	1.04	0.27	NO odor.
2	1409 MEMPHIS (#3)			70.1°F Wind 2.3NNE	0	20.8	0	0	1.01	0.24	NO odor.
3	1412 FIRE DEPT. (#4)			71.0°F Wind 3.3NE	0	20.8	0	0	0.93	0.28	NO odor.
4	1415 BIKE CLIMB (#5)			72.8°F Wind 0.4WSW	0	20.8	0	0	1.00	0.28	NO odor.
5	1420 RIVERSIDE (#6)			69.8°F Wind 0.0W	0	20.8	0	0	0.80	0.27	NO odor.
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											

Instrument(s): See

Comments:

Serial Number:

Calibration Gas:

Date Calibrated:

AQ/WMM Programs



Pennsylvania  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

2376144

# Surface Methane Monitoring Calibration Form



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Site: IES1

Date: 6/4/15

Model: TVA1000A-AAFAZ-ABD

Serial #: 660688

Weather: 54.5°F, overcast

Wind: NW 8.1 mph

Zero Accepted (Y/N): yes

Span Accepted (Y/N): yes

### Response Time (450 ppm)

T<sub>1</sub>: 3.73 sec

T<sub>2</sub>: 3.96 sec

T<sub>3</sub>: 3.67 sec

Avg Response: 3.78 sec

Ok if response is <30 sec

### Calibration Precision (500 ppm)

R<sub>1</sub>: 502 ppm

R<sub>2</sub>: 500 ppm

R<sub>3</sub>: 500 ppm

$$\frac{|500-R_1| + |500-R_2| + |500-R_3|}{3(500)} \times 100 = \underline{0.13\%}$$

Ok if deviation is <10%

Calibrated by: J. Wayne

2.08 ppm  
BDO  
07:43-JW

237-0104

Investigator: T. Wagner / A. Faulstich Date: 6/4/15  
 Weather Conditions: 50-30F overcast to 9 mph W (weather underground - Wassergras Station)

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Applebutter Rd.	0822	SL	I	O	vehicle exhaust, fresh cut grass.
Countryside Ln.	0823	N			
Limpac	0823	N			
Countryside Ln	0832	SL	I	O	honeysuckle
Applebutter Rd.	0834	SL	I	O	honeysuckle (Approaching self storage)
Ringhofer Rd.	0838	N			
Sherry Hill Rd.	0841	SL	I	O	honeysuckle
Applebutter Rd.	0845	N			
Skyline Dr.	0849	SL	I	O	honeysuckle
Applebutter Rd.	0852	N			
Shimerville Rd	0852	N			
Saugon Rd Ave SW	0901	N			
ROBERTS AVE	0903	N			
Snyder Ave	0903	N			
Mathews Ave	0904	N			
Mixsell Ave	0904	N			
Adams Ave.	0907	N			
Donston Ave	0907	SL	I	O	musty, vegetation

2376744

Investigator: JW/AF  
Weather Conditions:

Date: 4/4/15

IESI PA BETHLEHEM LANDFILL  
ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY	ODOR DURATION	ODOR DESCRIPTION	COMMENTS & OBSERVATIONS
		S = Strong M = Moderate SL = Slight N = None	P = Persistent I = Intermittent N = None	EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	
Jefferson Ave.	0908	SL	I	O	pine
Riverside DR	0908	N			
Fitch Ave.	0909	SL	I	O	floral
Jonston Ave.	0910	N			
Snyder Ave.	0910	N			
Schwab Ave.	0912	N			fresh cut grass.
Fitz Ave.	0912	N			
Riverside Dr.	0913	N			
Riverside DR.	0932	N			
Redington Rd.	0937	N			
Lower Slucon Rd.	0938	SL	I	O	honeysuckle
Countryside Ln	0939	N			
Lampar Ln.	0939	N			
Applebutter Rd.	0945	N			
Applebutter Rd	0950	N			tracking
Skyline Dr.	0952	SL	I	O	floral near Applebutter intersection
Skyline DR.	0955	SL	I	LFG	near Hader Ln (3.55ppm)
Applebutter Rd.	0958	N			

2370144

Investigator: JW/AE Date: 1/4/15 IESI PA BETHLEHEM LANDFILL  
 Weather Conditions: 59.3°F overcast, 3.5 mph NW (windy ground, rain, ODOR PATROL SURVEY  
 wassergass)

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Shimersville Rd.	1001	N			
Saucun Ave.	1005	N			garbage day
Roberts Ave.	1010	N			
Snyder Ave.	1010	N			
Mathews Ave.	1010	N			
Mixsell Ave.	1010	SL	P	O	fresh cut grass
Adams Ave.	1012	N			
Johnston Ave.	1013	SL	I	O	burning odor
Jefferson Ave.	1014	SL	I	O	burning odor
Riverside Dr.	1017	N			
Mathews Ave.	1018	N			
Johnston Ave.	1018	N			
Snyder Ave.	1019	N			
Schward Ave.	1020	N			
Mathews Ave.	1020	N			
Riverside Dr.	1026	N			
Redington Rd.	1031	N			
Lower Saucun Rd.	1032	N			

25710144

Investigator: JW/AF Date: 6/4/15  
 Weather Conditions: \_\_\_\_\_

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Country Side Ln	1033	N			
Lampar Ln	1033	N			
Applebutter Rd.	1040	N			
Ringhofer Rd.	1044	N			
Sheehy Hill Rd.	1047	SL	I	O	wetburning/burning odor
Applebutter Rd.	1052	SL	I	O	honeyuckle wetburning
Skyline Dr.	1055	SL	I	LFG	near Header Ln - quickly dispersed
Applebutter Rd.	1103	N			
Shinersville Rd.	1105	N			
Saucun Ave.	1109	N			
<del>Roberts</del> Saucun	1112	N			
Riverside Dr.	1113	N			
Mathews Ave.	1114	N			
Wissell Ave.	1115	N			
Adams Ave.	1118	SL	I	O	cut grass
Riverside Dr.	1118	N			
Riverside Dr.	1126	SL	I	D	honeyuckle
Bedington Rd.	1131	N			

1

5

2370244

Investigator: JW/AF

Date: 6/4/15

IESI PA BETHLEHEM LANDFILL

Weather Conditions: 104.0°F overcast, NNE @ 11.5 mph

Waste gas, PA, ODOR PATROL SURVEY  
WATER STATION

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Countyside Lane	1250	N			
Limpbar Ln	1250	N			
Applebutter Rd.	1254	N			
Skyline Dr.	1303	SL	I	O	tracking on roadway honeysuckle/floral
Applebutter Rd.	1309	N			
Shinersville Rd.	1311	SL	I	S	
Saucon Ave.	1314	N			
Roberts Ave.	1317	SL	I	O	honeysuckle
Snyder Ave.	1318	N			
Mixsell Ave.	1318	N			
Adams Ave.	1320	N			
Donston Ave.	1321	N			
Jefferson Ave.	1321	N			
Riverside Dr.	1322	N			
Adams Ave.	1322	SL	I	O	vehicle exhaust - near garage
Donston Ave.	1323	N			
Snyder Ave.	1324	N			
Schwab Ave.	1325	N			

237-0144

Investigator: JW/AF  
 Weather Conditions: \_\_\_\_\_  
 Date: 12/4/15

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Mathews Ave	1325	N			
Riverside Dr	1334	M	P	O	diesel exhaust, near Rodington, following truck
Redington Rd.	1338	N			
Lower Saucon Rd.	1340	SL	I	O	cut grass, honeysuckle
Country Side Ln.	1341	N			
Limpert Ln	1341	N			
Applebutter Rd.	1350	N			
Skyline Dr.	1353	SL	I	O	Floral/Vegetation
Applebutter Rd	1400	N			
Spencersville Rd.	1402	N			
Saucon Ave	1406	N			
Roberts Ave	1409	N			
Snyder Ave.	1409	N			
Mixsell Ave.	1409	N			
Adams Ave.	1412	N			
Riverside Dr	1419	N			

**DEPARTMENT OF ENVIRONMENTAL PROTECTION  
EMERGENCY RESPONSE FIELD INSPECTION REPORT**

<b>Type of incident:</b> Stormwater/debris discharge from Landfill		<b>Date:</b> Mon. June 15, 2015	
<b>Facility or Location:</b> IESI Landfill – runoff from landfill through and next to front gate across Applebutter Rd.			
<b>Municipality:</b> Lower Saucon Twp.		<b>County:</b> Northampton	
<b>Latitude:</b> 40° 37' 18"		<b>Longitude:</b> 75° 18' 32.4"	
<b>Call Out Time:</b> 2110hrs		<b>Return Time:</b> 0010hrs on 6/16/15	
<b>Site Arrival Time:</b> 2220hrs		<b>Site Departure Time:</b> 2300hrs	
<b>Beginning Mileage:</b> 46109		<b>Ending Mileage:</b> 46183	
<b>Complainant Name and Address:</b> Unknown			
<b>Telephone Number ( )</b>			
<b>Responsible Party Name and Address:</b> IESI Landfill, 2335 Applebutter Rd., Bethlehem, PA 18015.			
<b>Telephone Number (610) 317-3200</b>			
<b>Weather Conditions:</b> Cloudy, 70s, High surface water runoff flow from very heavy prior rain.			
<b>Remarks:</b> 2107hrs – call from Bob Bisignani, ER Coordinator, to respond to the report of garbage on Applebutter Rd. from IESI Landfill following heavy rain. 2220hrs – arrived at the entrance to IESI Landfill. Debris including plastic, wood, stone, rip-rap rock was observed from the landfill entrance gate strewn across Applebutter Rd. to the south side of the road. The vegetation on the south side of the road was laid over indicating a high volume of water had passed through this area, but no water was currently flowing there. Traffic was able to pass through the scattered debris. A local police cruiser and a Freemansburg Vol. Fire Co. engine passed by the entrance while I was there. I observed other areas along Applebutter Rd. that contained stone and mud, unrelated to the runoff from the landfill. I drove up to the self-store rental business and turned around before parking at the landfill entrance. Very high flows were observed in the local streams and in runoff along Applebutter Rd. While at the landfill entrance I called Al Schleyer, IESI Compliance Specialist, ( at 2042hrs) who was unaware of the runoff issue at the landfill. He offered to meet me at the Landfill entrance with a shovel, but I told him that it wasn't necessary, and he said that they would address the debris from the landfill first thing in the morning. There was a slight odor at the landfill entrance, but it was not of the intensity or duration to be considered a malodor. After leaving the landfill entrance, I drove back on Applebutter Rd. and on to Steel City where I drove to the road closed signs near the hill climb – there was no landfill odor present on my route.			
<b>Materials Used:</b> N/A			
<b>Sample Collected?</b> N/A		<b>Sample Numbers:</b>	
<b>Investigated By:</b> J. Kunkle (ER-JK-061515)		<b>Analysis?</b>	
		PADEP   Northeast Regional Office	
Page 1 of 1			

**BETHLEHEM LANDFILL**  
**LEACHATE DEMAND REPORT**  
**May 2015**

<u>Location</u>	<u>Total gallons</u>
LMC-6	7,520
LMC-7	20,273
LMC-8	40,103
LMC-10	1,580,000
PS-1	512,202
PS-2	160,703
PS-3	34,052
Phase-IV	706,957

Total LMC-10 Flow = LMC-6, 7, 8, Abatement Well System, Phase I and II, and LFG condensate. Phase-IV total from PS-1, PS-2 and PS-3.

**Total Discharge**

LMC-10	1,580,000
<u>Phase IV</u>	<u>706,957</u>
<b>TOTAL</b>	<b>2,286,957 gallons</b>

**Total Leachate**

Leachate	490,017
<u>Phase IV</u>	<u>706,957</u>
<b>TOTAL</b>	<b>1,196,974 gallons</b>

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).  
 Abatement System Flow = 1,089,983 gallons (Neptune Flow meters)

**MAY 2015**

Total Transactions for month (TT, RL, RO, FL)

**OVERWEIGHT VEHICLES**

80000 0.03 2400  
73280 0.03 2198.4

**32,100**  
**75,476**

(Record each vehicle that exceeds 73,280 pounds and each combination vehicle that exceeds 80,000 pounds)

DATE	TIME	GROSS WEIGHT	TYPE		Transfer Station	TRUCK #	DRIVER NAME	ISSI	WEIGHMASTER	WARNING	SUSPENSION					DATE SCALE CALIBRATED
			TT, RO	RL, FL							#1	#2	#3	#4	#5	
5/6/2015	8:31 AM	80,380	TT		50	VOY104-27212	MIGUEL TLATELPA	DEE		X						5/20/2015
5/7/2015	7:36 AM	80,260	TT		50	VOY156-31466	GABRIEL MUNOZ	DEE		X						5/20/2015
5/7/2015	1:05 AM	80,080	TT		50	VOY275-30464	MANUEL BERRIOS	DEE		X						5/20/2015
5/8/2015	7:26 AM	84,400	DTL			CAR207	LESTER BALDWIN	DEE		X						5/20/2015
5/11/2015	7:36 AM	80,600	TT		50	VOY156-31466	GEM MCGUIRE	DEE		X						5/20/2015
5/12/2015	7:57 AM	80,760	TT		50	VOY106-28380	ABERLARDO GUITTERREZ	DEE		X						5/20/2015
5/12/2015	8:34 AM	80,380	TT		50	STR680-31430	MANUEL LEMA	DEE		X						5/20/2015
5/13/2015	12:51 PM	82,060	TT		50	CRUZ525-0128	WILLIAM VENTURA	DEE		X						5/20/2015
5/15/2015	12:25 PM	81,540	RO			RUB RO1	PASQUALE SODONA	DEE		X						5/20/2015
5/16/2015	8:00 AM	80,160	TT		50	CP8822-44	JOSE SEGUNDO	BONNIE		X						5/20/2015
5/16/2015	9:18 AM	81,900	TT		50	STR680-31430	MANUEL LEMA	BONNIE		X						5/20/2015
5/18/2015	7:26 AM	80,600	TT		COURT	STR304-06164	JOSE VARGAS	DEE		X						5/20/2015
5/18/2015	2:01 AM	80,200	TT		COURT	STR601-27146	JUSSIER ALVES	DEE		X						5/20/2015
5/19/2015	7:47 AM	80,260	TT		COURT	STR304-06164	JOSE VARGAS	ADAM		X						5/20/2015
5/20/2015	1:08 AM	82,480	TT		50	CRUZ525-0128	IVAN CRUZ	DEE		26-May						5/20/2015
5/22/2015	11:48 AM	80,140	TT		50	VOY275-30464	MAUAE BERRIOS	BONNIE		X						5/20/2015
5/23/2015	11:10 AM	80,880	TT		50	ROW25-96561	ROQUE DEAZA	DEE		X						5/20/2015
5/26/2015	8:48 AM	80,800	TT		50	VOY106-28380	ABERLARDO GUITTERREZ	DEE		X						5/20/2015
5/26/2015	7:13 AM	80,200	TT		50	AMS23-26943	ABEL COLON	DEE		X						5/20/2015
5/28/2015	7:09 AM	80,700	TT		50	CRUZ525-0128	IVAN CRUZ	DEE								5/20/2015
5/28/2015	9:01 AM	82,520	TT			LV409-137	RICKY BOYER	DEE		2-Jun						5/20/2015
5/29/2015	7:36 AM	80,060	TT		50	ROW25-96561	ROQUE DEAZA	DEE								5/20/2015
5/29/2015	9:12 AM	80,680	TT		50	VOY413-30463	JESUS CAMPOS	DEE		X						5/20/2015









# Hanover

Engineering Associates Inc

JUN 29 2015

June 26, 2015

Mr. Jack Cahalan, Manager  
Lower Saucon Township  
3700 Old Philadelphia Pike  
Bethlehem, PA 18015

RE: Inspection Conducted on June 25, 2015  
IESI Bethlehem Landfill  
Hanover Project LS90-7

Dear Mr. Cahalan:

The purpose of this letter is to report the results of the above-referenced "pre-meeting" inspection, which was conducted by me along with Allen Schleyer, Compliance Manager for IESI, and Priscilla deLeon, Council Liaison. The following items were noted during the inspection:

1. The Bethlehem Renewable Energy (BRE) plant was not running. Mr. Schleyer stated that the plant underwent a shutdown due to an issue with a filter. The chart at the landfill flare recorded a gradual shutdown over several hours of time starting at approximately 6:00PM on June 25, 2015.
2. The landfill flare was running at a flow rate of 3,570 Standard Cubic Feet per Minute (SCFM) and a temperature of 1,688 degrees Fahrenheit. The largest blower was observed to be in operation today. An instrument readout at the flare control panel indicated that this flow rate was a little over ninety percent (90%) of the flare's capacity.
3. The truck wash was not in use due to dry conditions.
4. Sediment was observed along the shoulders of Applebutter Road and at the mouth of the landfill entrance driveway. No mud, blowing litter, or odor was observed along Applebutter Road, the entrance driveway, or at the landfill office upon my arrival at the facility. Ms. deLeon reported earlier detecting a gas odor at the landfill office. A slight garbage odor was observed at the west end of the MSE wall. A slight "sweet" or "grape" odor was detected in the vicinity of the mister lines when they were running. This inspector observed a slight gas odor at the landfill office at the end of the inspection. No other odors were observed.
5. The southern mister line was running upon the start of the inspection, and shut down on timer operation during the inspection. The northern mister line activated during the inspection. Both lines appeared to be fully functional.
6. Wind direction during the inspection was predominantly from the north to northwest (blowing from), with an estimated speed of five to ten miles per hour (5-10 mph).
7. Garbage was being disposed of in Cell 4D Stage 2, near the interface with Cell 4E. The working face was not inspected, and number of trucks waiting and off-loading was not observed.
8. Cover soil is still being imported. No Alternative Daily Cover material is being used.

S  
ROUTING

- Council
- Manager *Orig*
- Asst. Mgr.
- Zoning
- Finance
- Police
- P. Works
- P/C
- P & R
- EAC
- Engineer
- Solicitor
- Planner
- Landfill
- EMC
- Other *web*

9. Work to construct new Cell 4E Stage 3 was currently taking place, involving the placement of fill soil for the sub base of the cell. Soil to be used for the construction of this cell is being imported.
10. A large portion of the western face has had soil added and graded to remove erosion channels. Mr. Schleyer states that this work will continue until the entire face has been dressed up. This inspector observed this work taking place.
11. The west high wall was observed. No major changes since the last inspection were evident. No slope failures and no major movement of soil or rock along the wall were observed. The inlet of the stormwater pipe at the bottom of the high wall has been cleaned out.
12. The channel at the bottom of the south slope has been cleaned out and reformed. Stone filter berms have been added to the channel in several places. The inlet to the junction box at the downpipe has been cleaned off. However, the box itself is still full of sediment. Mr. Schleyer reports that Mobile Dredge is scheduled to clean out the junction box and outgoing stormwater pipe.
13. I confirmed that there is still no vegetation or other means of stabilization on the areas of intermediate cover along the shoulder and southern face of the landfill. Mr. Schleyer previously stated that IESI is evaluating different methods of stabilization for these areas, including vegetation, Posi-Shell, and temporary capping, and is committed to proceeding with this work.
14. The condition of the north slope road was inspected. A large amount of erosion was observed along the portion of the road that runs downhill from the maintenance building. An erosion channel up to three feet (3') deep was observed in the road in this area. Further downhill, a large amount of rocks were observed strewn across the western fork of the road. Mr. Schleyer called his Operations Manager, Mike Sheldon, to this area and conferred with him on the necessary repair work.
15. This inspector conducted an odor patrol through Steel City starting at 9:35AM (in conjunction with other work being conducted in the area). No landfill-related odors or sounds were observed during this inspection. This inspector conducted an odor patrol along Skyline Drive (in accordance with the new procedure), beginning at 12:50PM. No landfill-related odors were observed during this inspection.

If you have any comments or questions regarding any of the above, or find that you need additional information, please do not hesitate to call me immediately.

Respectfully,

HANOVER ENGINEERING ASSOCIATES, INC.



Christopher A. Taylor, PG, HMI  
Host Municipality Inspector

cat:cat/dad

S:\Projects\Municipal\LSoucon\Twp\LS90-07-BethLandfill\Docs\IESI landfill report of June 25, 2015 insp.doc

# IESI ODOR COMPLAINT LOG (2335 Applebutter Rd, Bethlehem, PA 18017)

Date	Time	Address	Distance		Weather Data (Allentown (PASS))		Wind (out of)		Residence / Drive- Description / Notes	Gas Management Data			
			from Landfill (miles)	Skies	Temperature °F	Wind (out of) mph	Flare (scfm)	BRE (scfm)		Total (scfm)	Date of Initial Response	Addressed in Insp Report Date	
05/21/15	0815 hrs	Lower Saucon Rd., Hellertown	NA	Clear	53.1	NE @ 3.5 mph	Drive-by	Garbage odor along Applebutter Rd.	3105	0	3105	5/28/2015	6/29/2015
05/22/15	0707 hrs	Roberts Ave, Steel City	1.059	clear	51.1	WNW @ 8.1	Residence	Sour decay odor on property.	3201	0	3201	5/28/2015	6/29/2015
05/23/15	2224 hrs	Schwab Ave, Steel City	1.180	Clear	59.0	N @ 4.6 mph	Residence	Foul odor on property.	3439	0	3439	5/28/2015	6/29/2015
05/03/15	1434 hrs	Johnston Ave, Steel City	1.170	Mostly cloudy	66.9	Variable @ 6.9	Residence	Sweat odor came into home.	1943	1735	3678	6/16/2015	6/29/2015
05/03/15	2149 hrs	Johnston Ave, Steel City	1.170	Mostly cloudy	64.0	calm	Residence	LFG on property.	1907	1709	3616	6/16/2015	6/29/2015
05/04/15	1156 hrs	Johnston Ave, Steel City	1.170	Mostly cloudy	66.0	E @ 12.7	Residence	LFG on property.	1931	1698	3629	6/16/2015	6/29/2015
05/04/15	1322 hrs	Johnston Ave, Steel City	1.170	overcast	66.9	E @ 10.4mph	Residence	LFG on property.	1931	1701	3632	6/16/2015	6/29/2015
05/15/15	0749 hrs	Fritz Ave, Steel City	0.990	Scattered Clouds	75.2	WSW @ 10.4	Residence	Strong odor on property.	3080	0	3080	6/16/2015	6/29/2015
05/15/15	1859 hrs	Johnston Ave, Steel City	0.980	Partly Cloudy	75.9	WSW @ 11.5	Residence	Strong odor on property.	1084	2152	3256	6/16/2015	6/29/2015
05/15/15	2017 hrs	Mixsell Ave, Steel City	0.795	Partly Cloudy	75.9	WSW @ 11.5	Residence	Strong odor on property.	1082	2174	3256	6/16/2015	6/29/2015
05/15/15	2031 hrs	Johnston Ave, Steel City	0.980	Mostly cloudy	77.0	WSW @ 6.9mph	Drive-by	Run off on Applebutter Rd. from heavy rains.	1076	2174	3250	6/16/2015	6/29/2015
05/15/15	2045 hrs	Ivywood Ave, Steel City	1.077	Mostly cloudy	77.0	WSW @ 6.9mph	Drive-by	Run off on Applebutter Rd. from heavy rains.	1077	2171	3248	6/16/2015	6/29/2015
05/15/15	2134 hrs	Saucon Ave, Steel City	0.883	Overcast	77.0	SW @ 5.9	Residence	Strong odor on property.	1078	2153	3231	6/16/2015	6/29/2015
05/18/15	0756 hrs	Johnston Ave, Steel City	1.170	overcast	64.9	ESE @ 5.8 mph	unknown	Strong odor from landfill	1430	2208	3638	6/24/2015	6/29/2015

**Additional Odor Patrols Conducted at IESI**

Investigator: Jessica Wagner Date: 5/28/15  
 Weather Conditions: 81°F, scattered clouds, W @ 5 mph

IESI PA BETHLEHEM LANDFILL  
 ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Saucan Ave	1331	SL	I	O	cut wood.
Saucan Cude SAC	1333	SL	P	O	vegetation/flora
Roberts Ave.	1335	N			
Mixsell Ave.	1337	N			
Adams. Ave.	1338	SL	I	O	vegetation/flora
Johnston Ave.	1339	SL	I	O	grass - resident mowing
Snyder Ave.	1340	N			
Schwab Ave.	1342	N			
Mathews Ave	1342	N			
Riverside Dr.	1349	SL	I	O	rainwater bed.
Redington Rd.	1352	N			
Lower Saucan Rd.	1354	SL	I	O	pesticide
Countyside	1356	N			
Linnet Rd.	1356	N			
Applebutter Rd	1403	SL	I	S	near Skyline.
Skyline Dr.	1407	N			
Applebutter.	1412	N			

0

0

2380213

Investigator: Jessica Waggoner Date: 11/16/15  
Weather Conditions: 78.8°F, 40% RH, E @ 3.5 mph

IESI PA BETHLEHEM LANDFILL  
ODOR PATROL SURVEY

SURVEY LOCATION	TIME	ODOR INTENSITY S = Strong M = Moderate SL = Slight N = None	ODOR DURATION P = Persistent I = Intermittent N = None	ODOR DESCRIPTION EG = Rotten Egg LFG = Landfill Gas G = Garbage S = Sewage D = Dredge O = Other (describe)	COMMENTS & OBSERVATIONS
Main St	0855				
Shimmersville Rd.	to	M	P	S	Detected while traveling to landfill.
Applebutter Rd	0900				
Shimmersville					
Saucan Ave	0937	SL	I	S	
Roberts Ave	0940	N			
Snyder Ave	0941	N			
Snyder Ave	0942	N			
Mixsell Ave	0943	N			
Adams Ave	0943	N			
Johnston Ave	0943	N			
Jefferson Ave	0944	N			
Riverside Dr.	0945	N			
Pritz Ave	0945	N			
Johnston Ave	0949	N			
Schubert Ave	0949	N			
Adams Ave	0949	N			
Riverside Dr.	0955	N			Closed after bike climb



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BETHLEHEM DISTRICT OFFICE

July 14, 2015

Lower Saucon Township Manager  
3700 Old Philadelphia Pike  
Bethlehem, PA 18015

Attn: Mr. Jack Cahalan

Re: IESI PA Bethlehem Landfill  
Permit # 100020  
Lower Saucon Township, Northampton County

Dear Mr. Cahalan:

Please find enclosed a copy of the report of an inspection performed by this District Office at the IESI PA Bethlehem Landfill, located in your municipality. A copy of the inspection report is being provided to you pursuant to the provisions of Section 1101(a) (1) of Act 101, the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988.

If you have any questions, please feel free to contact me at 610-861-2150.

Sincerely,

A handwritten signature in black ink, appearing to read "Jessica Wagoner".

Jessica Wagoner  
Solid Waste Specialist  
Waste Management Program

Enclosure