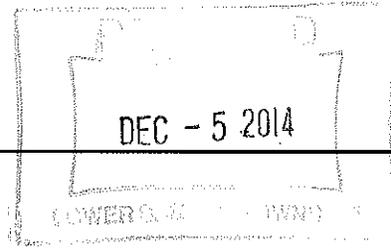


Hanover

Engineering Associates Inc



December 4, 2014

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

RE: Inspection Conducted on December 3, 2014
IESI Bethlehem Landfill
Hanover Project LS90-7

Dear Mr. Cahalan:

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

1. The Bethlehem Renewable Energy (BRE) plant was running.
2. The landfill flare was running at a flow rate of 1044 Standard Cubic Feet per Minute (SCFM) and a temperature of 1635 degrees Fahrenheit.
3. The truck wash was in use due to wet conditions.
4. No mud, odors, or blowing litter were observed along Applebutter Road, the entrance driveway, or at the landfill office.
5. No litter was observed in the trees within the perimeter fence. Litter was observed on the face of the MSE wall. Mr. Schleyer stated that pickers would be scheduled to remove. Windscreens were in use at the working face. Wind direction during the inspection was predominantly from the west/southwest (blowing from), with an estimated speed of five to ten miles per hour (5-10 mph).
6. Garbage was being disposed of in Cell 4E at the interface of Stages 1 and 2. Two (2) trucks were off-loading and eight (8) trucks were waiting. The muddy site conditions caused delays in getting the trucks to the working face. Mr. Schleyer stated that IESI had added stone to the trucking road to try to improve conditions. The truck tipper was parked on site at the working face and had been used earlier, but was not being used during the inspection.
7. Soil for daily cover material had been trucked in from off-site and stockpiled at the north end of Cell 4E, where a large stockpile still exists. All cover soil currently being used is being imported. No Alternative Daily Cover material is being used. No excavation work was taking place at the north end of Cell 4E to generate cover material.
8. The west high wall was observed and appears to be substantially unchanged since the last inspection. No major slope failures along the wall were observed.
9. A slight garbage odor was observed near the west end of the MSE wall. A slight landfill gas odor was observed along the southern access road.
10. Neither the spray line along the northern perimeter nor the spray line along the southern access road was running at the time of the inspection.

S
ROUTING

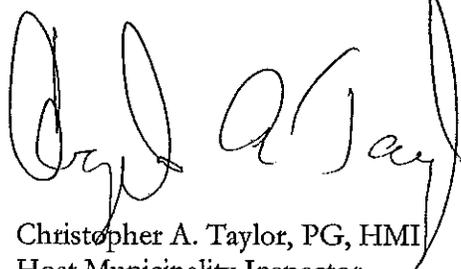
- Council
- Manager *orig*
- Asst. Mgr.
- Zoning
- Finance
- Police
- P. Works
- P/C
- P & R
- EAC
- Engineer
- Solicitor
- Planner
- Landfill
- EMC
- Other

11. A new control panel that will supply emergency power to Pump Stations 1, 2, and 3 in the event of a power outage is still staged in the parking lot, awaiting installation.
12. Mr. Schleyer stated that SCS Field Services are working on site to run additional vacuum lines to some wells which have demonstrated repeated exceedances of 500 parts per million of methane during previous Surface Emission Monitoring events. The intent is to increase the vacuum pull at these wells. This inspector spoke to the technician from SCS, who stated that vacuum lines had been run to wells HW 418 and 418R so far this day.
13. Mr. Schleyer provided copies of documents that had previously been requested, as follows:
 - September 2014 Leachate Demand and Groundwater Demand Reports.
 - Third Quarter 2014 Groundwater Demand Report.
 - Surface Emission Monitoring data from SCS Field Services for the Third Quarter 2014 monitoring event.
 - Extraction Well Boot Detail for wells completed in areas of final capping.These documents are attached herewith for distribution.
14. This inspector conducted a patrol through Steel City and the narrows, beginning at 2:35PM. No landfill-related odors or sounds 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\LSauconTwp\LS90-07-BethLandfill\Docs\IESI landfill report of Dec 3, 2014 insp.doc

Enclosure(s)



October 20, 2014

Mr. William Tomayko
Program Manager
PA Department of Environmental Protection
2 Public Square
Wilkes-Barre, PA 18711-0790

Re: Abatement Well Reports/Data Collection Update

Dear Mr. Tomayko:

Enclosed are the Leachate Demand and Ground Water Demand Reports for the month of September 2014. The overall Abatement Well pump stations, data collection and reporting equipment were operational.

Also included is the Third Quarter 2014 Groundwater Demand report

If you have any questions please call either Sam Donato or me at 610-317-3200.

Sincerely

Allen M. Schleyer
Compliance Manager

Enclosure

Cc: Bharat Bham, PADEP Bethlehem Office
Samuel Donato, District Manager
J. Cahalan, Lower Saucon Township
File

BETHLEHEM LANDFILL

**LEACHATE DEMAND REPORT
September 2014**

<u>Location</u>	<u>Total gallons</u>
LMC-6	7,249
LMC-7	15,773
LMC-8	55,326
LMC-10	1,419,000
PS-1	424,801
PS-2	174,930
PS-3	42,922
Phase-IV	642,653

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	1,419,000
<u>Phase IV</u>	<u>642,653</u>
TOTAL	2,061,653 gallons

Total Leachate

Leachate	336,526
<u>Phase IV</u>	<u>642,653</u>
TOTAL	979,179 gallons

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).
Abatement System Flow = 1,082,474 gallons (Neptune Flow meters)

BETHLEHEM LANDFILL

GROUNDWATER DEMAND REPORT September 2014

Well No.	Water Level (avg. ft SWL*)	Flow (avg. GPM)	(Total gal)
AB-1	82.9	4.6	212,588
AB-2	68.9	0.2	10,214
AB-3	23.0	<0.1	2,125
AB-4	47.4	1.4	62,215
AB-5	47.2	0.5	22,240
AB-6	36.1	1.9	85,805
AB-7	36.3	2.2	103,404
AB-8	27.9	0.7	30,460
AB-9	13.0	5.0	228,634
AB-10	47.5	7.0	324,748
TW-1	76.5	<0.1	41
Total Flow			1,082,474 gallons

*SWL above transducer set point

* Per DEP approval well TW-1 was shut down September 14, 2009.

BETHLEHEM LANDFILL

GROUNDWATER DEMAND REPORT

Third Quarter 2014
July through September

Well No.	Water Level (avg. feet trans.)	Flow	
		(avg. GPM)	(Total gal)
AB-1	84.7	4.5	601,033
AB-2	72.5	0.3	42,825
AB-3	22.0	0.1	6,090
AB-4	38.5	1.5	204,472
AB-5	46.5	0.5	68,185
AB-6	40.5	2.1	273,056
AB-7	32.5	2.3	299,801
AB-8	22.9	0.7	99,267
AB-9	14.5	4.5	598,910
AB-10	53.0	8.2	1,085,560
TW-1	*90.6	<0.1	51
Total Gallons			3,279,250

SWL above the transducer set point
* Based on ERG measurement

SCS FIELD SERVICES

File No. 07209021.01 Task 2
October 13, 2014

Mr. Al Schleyer
IESI Bethlehem Landfill
2335 Applebutter Road
Bethlehem, PA 18015

Subject: Surface Emission Monitoring (SEM) at IESI Bethlehem Landfill, Bethlehem, PA

Dear Mr. Schleyer:

On August 26, 2014, SCS Field Services (SCS-FS) conducted the 3rd Quarter 2014 surface emissions monitoring (SEM) at the subject landfill for IESI. The following report summarizes the work performed and presents the monitoring data collected.

The monitoring took place as specified in 40 CFR 60.755 (c) and (d), and 40 CFR 60, Appendix A, Method 21. A total of 502 points on the landfill were tested for emissions of volatile organic compounds (VOC), as methane, using a Foxboro TVA-1000B flame ionization detector. Monitoring was performed over the path as detailed on the *SEM Route Map*, prepared by SCS Engineers in 2012, included as Attachment 1.

The Calibration and Pertinent Data Forms for the monitoring performed are provided in Attachment 2. The NSPS SEM data are presented in Table 1, Attachment 3.

Observations

Over the area surveyed, three points were found to have emission levels exceeding 500 ppm above background. Emissions were observed at the following locations:

- Tag #110 – Base of well EW-4-30,
- Tag #176 – Approximately 50 feet SE of EW-4-28 and HW-4-20, and
- Tag #177 – Approximately 50 feet NE of EW-4-27R,

The SEM exceedances were reported to IESI. SCS-FS recommended that cover maintenance be performed on each area.

Ten-Day Recheck Monitoring

Ten-Day recheck monitoring was performed on September 5, 2014 at the areas found in exceedance during the quarterly monitoring after additional cover was added by IESI. The emission levels at all of the locations were less than 500 ppm above background. The monitoring data are included in Table 2, Attachment 3.



Mr. Al Schleyer
October 13, 2014
Page 2

Thirty-Day Recheck Monitoring

Thirty-Day recheck monitoring was performed on September 25, 2014 at the areas found in exceedance during the quarterly monitoring. The emission levels at both of the locations were less than 500 ppm above background. The monitoring data are included in Table 3, Attachment 3.

No further monitoring is required until the next quarterly event, which is tentatively scheduled during November 2014.

Sincerely,



Keith Kleckner
Project Superintendent
SCS FIELD SERVICES



Thomas M. Lock
Project Manager
SCS FIELD SERVICES

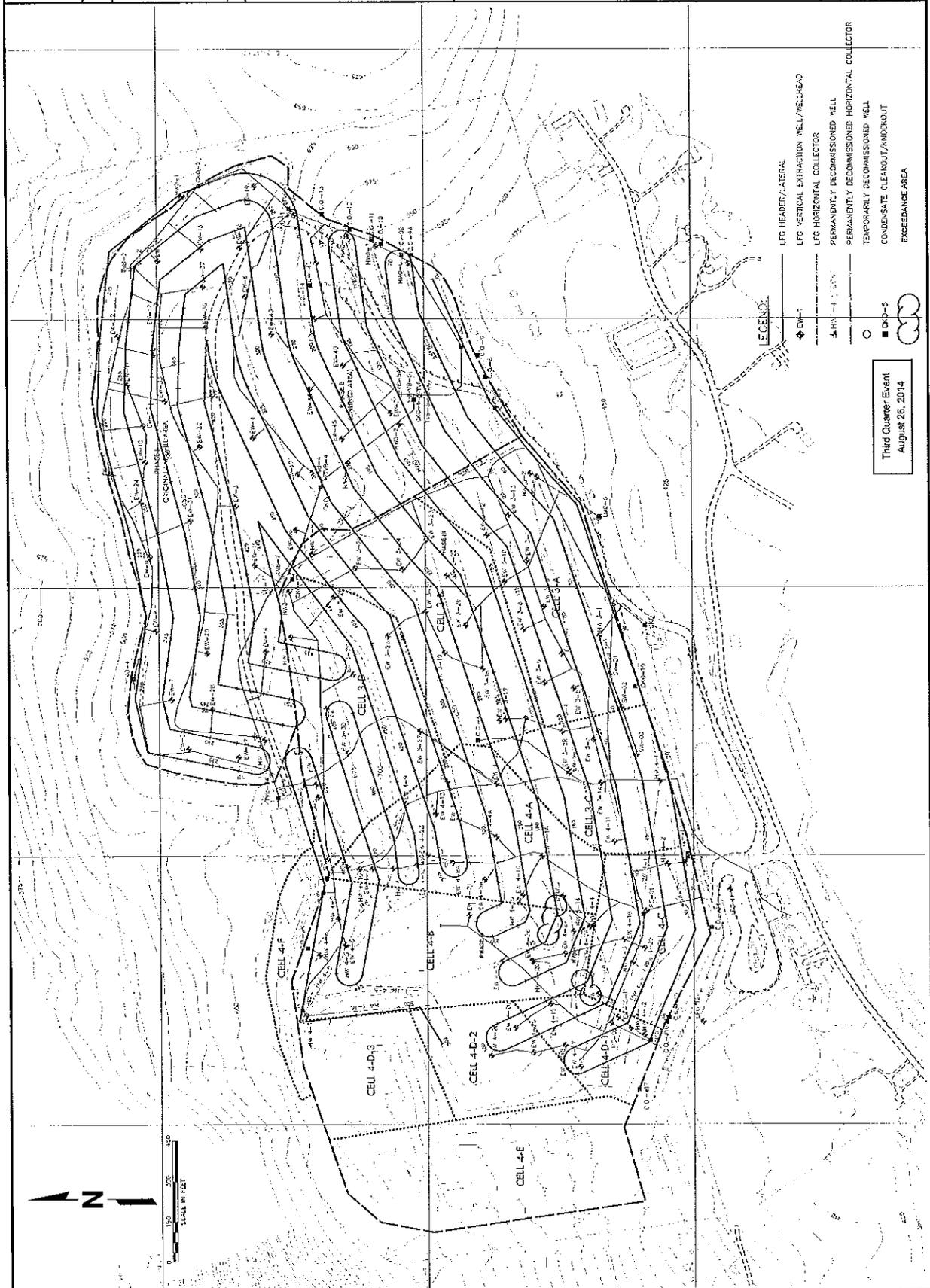
cc: Derek Dyer, SCS Engineers

Attachments

ATTACHMENTS

1. SEM Monitoring Plan
2. SEM Calibration and Pertinent Data Forms
3. SEM Data (Tables 1, 2, and 3)

ATTACHMENT 1
SEM Monitoring Plan



ATTACHMENT 2

SEM Calibration and Pertinent Data Forms

SCS FIELD SERVICES

**NSPS Surface Emissions Monitoring
Calibration and Pertinent Data Form**

Date: 08/26/14 Site: Bethlehem Landfill Job Number: 07214090.00

Technician(s): Ben Lock

Weather Observations

Wind Speed: 2 MPH Wind Direction: W Barometric Pressure: 30.26 "Hg
Air Temperature: 78 °F General Weather Conditions: Sunny

Calibration Information

Instrument S/N 414006484 Span Calibration Gas Manufacturer: Landtec
Span Cal Gas Lot #: 42138-01 Expiration Date: 5/1/2015 Concentration: 491 ppm
Zero Cal Gas Lot #: 1366017 Expiration Date: 8/17/2015 Concentration: 0 ppm

Pre-monitoring Calibration Precision Check

Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.

Trial	Zero Air Reading (ppm)	Cal Gas Reading (ppm)	Cal Gas Conc. - Cal Gas Reading
1	0	499	8
2	0.01	497	6
3	0.03	499	8
Average Difference:			7

Calibration Precision = Average Difference / Cal. Gas Conc. X 100%
 = 7 / 491 X 100%
 = 1.49 %

Pre-monitoring Response Time Check

Procedure: Introduce zero concentration methane/H2S into the instrument. Quickly change to the calibration gas. Measure the amount of time it takes the instrument to read 90% of the calibration gas concentration. This average response time must be less than or equal to 30 seconds.

Trial	Start Time (Add Cal Gas) (hh:mm:ss)	Time at 90% Reading (hh:mm:ss)	Time Elapsed (Seconds)
1	12:39:00 PM	12:39:11 PM	11
2	12:39:30 PM	12:39:38 PM	8
3	12:40:00 PM	12:40:05 PM	5
Average Response Time:			8

Background Concentration Checks

Upwind Location Description: W of site on access road Reading: 3.47 ppm
 Downwind Location Description: E of site on access road Reading: 14.41 ppm
 Average Background Reading: 8.94 ppm

Post-monitoring Calibration Precision Check

Zero Air Reading: 0.12 ppm Cal Gas Reading: 500 ppm

Notes/Comments: _____

SCS FIELD SERVICES

**NSPS Surface Emissions Monitoring
Calibration and Pertinent Data Form**

Date: 09/05/14 Site: Bethlehem Landfill Job Number: 07214090.01

Technician(s): Ben Lock

Weather Observations

Wind Speed: 2 MPH Wind Direction: SW Barometric Pressure: 30.18 "Hg
Air Temperature: 76 °F General Weather Conditions: Cloudy

Calibration Information

Instrument S/N 414006484 Span Calibration Gas Manufacturer: Landtec
Span Cal Gas Lot #: 42138-01 Expiration Date: 5/1/2015 Concentration: 491 ppm
Zero Cal Gas Lot #: 1366017 Expiration Date: 8/17/2015 Concentration: 0 ppm

Pre-monitoring Calibration Precision Check

Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.

Trial	Zero Air Reading (ppm)	Cal Gas Reading (ppm)	Cal Gas Conc. - Cal Gas Reading
1	0.07	500	9
2	0.02	501	10
3	-0.9	500	9
Average Difference:			9

Calibration Precision = Average Difference / Cal. Gas Conc. X 100%
 = 9 / 491 X 100%
 = 1.90 %

Pre-monitoring Response Time Check

Procedure: Introduce zero concentration methane/H2S into the instrument. Quickly change to the calibration gas. Measure the amount of time it takes the instrument to read 90% of the calibration gas concentration. This average response time must be less than or equal to 30 seconds.

Trial	Start Time (Add Cal Gas) (hh:mm:ss)	Time at 90% Reading (hh:mm:ss)	Time Elapsed (Seconds)
1	10:20:00 AM	10:20:12 AM	12
2	10:20:30 AM	10:20:38 AM	8
3	10:21:00 AM	10:21:05 AM	5
Average Response Time:			8

Background Concentration Checks

Upwind Location Description: SW of site on access road Reading: 5.44 ppm
 Downwind Location Description: NE of site on access road Reading: 14.40 ppm
 Average Background Reading: 9.92 ppm

Post-monitoring Calibration Precision Check

Zero Air Reading: 0.12 ppm Cal Gas Reading: 502 ppm

Notes/Comments: _____

SCS FIELD SERVICES

**NSPS Surface Emissions Monitoring
Calibration and Pertinent Data Form**

Date: 09/25/14 Site: Bethlehem Landfill Job Number: 07214090.01

Technician(s): Ben Lock

Weather Observations

Wind Speed: 4 MPH Wind Direction: NE Barometric Pressure: 30.36 "Hg
Air Temperature: 56 °F General Weather Conditions: Raining

Calibration Information

Instrument S/N 414006484 Span Calibration Gas Manufacturer: Landtec
Span Cal Gas Lot #: 42138-01 Expiration Date: 5/1/2015 Concentration: 491 ppm
Zero Cal Gas Lot #: 1366017 Expiration Date: 8/17/2015 Concentration: 0 ppm

Pre-monitoring Calibration Precision Check

Procedure: Calibrate the instrument. Make a total of three measurements by alternating zero air and the calibration gas. Record the readings and calculate the average algebraic difference between the instrument reading and the calibration gas as a percentage. The calibration precision must be less than or equal to 10% of the calibration gas value.

Trial	Zero Air Reading (ppm)	Cal Gas Reading (ppm)	Cal Gas Conc. - Cal Gas Reading
1	0.66	503	12
2	0.61	505	14
3	0.55	502	11
Average Difference:			12

$$\begin{aligned} \text{Calibration Precision} &= \text{Average Difference} / \text{Cal. Gas Conc.} \quad \times 100\% \\ &= \frac{12}{491} \times 100\% \\ &= \underline{2.51} \% \end{aligned}$$

Pre-monitoring Response Time Check

Procedure: Introduce zero concentration methane/H2S into the instrument. Quickly change to the calibration gas. Measure the amount of time it takes the instrument to read 90% of the calibration gas concentration. This average response time must be less than or equal to 30 seconds.

Trial	Start Time (Add Cal Gas) (hh:mm:ss)	Time at 90% Reading (hh:mm:ss)	Time Elapsed (Seconds)
1	12:06:00 PM	12:06:13 PM	13
2	12:06:30 PM	12:06:40 PM	10
3	12:07:00 PM	12:07:06 PM	6
Average Response Time:			10

Background Concentration Checks

Upwind Location Description: NE of site on access road Reading: 2.88 ppm
Downwind Location Description: SW of site on access road Reading: 9.90 ppm
Average Background Reading: 6.39 ppm

Post-monitoring Calibration Precision Check

Zero Air Reading: 0.52 ppm Cal Gas Reading: 499 ppm

Notes/Comments: _____



ANALYSIS CERTIFICATION

METHOD OF PREPARATION: GRAVIMETRIC / PRESSURE TRANSFILLING

ANALYTICAL PRINCIPLE: GC (TCD)

ACCURACY:: ± 2% Relative

LOT Number	COMP 1 CH ₄	COMP 2 AIR	COMP 3	COMP 4	COMP 5	COMP 6	Exp Date
42138-01	500 PPM	Balance					May/2015
Actual	491 PPM	Balance					

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited company. Results are in mole percent, unless otherwise indicated. Mixtures are prepared by either partial pressure or gravimetric method. Gas mixtures are traceable to N.I.S.T. weights and/or N.I.S.T. gas mixture reference materials

No effecting environmental conditions during analysis.

FILL PRESSURE 1000 PSI
EXPIRATION DATE: May, 2015
CERTIFICATION DATE: May 16, 2012
ANALYSIS BY: Jason Goldrup

“We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request.”
 The only liability of this company for gas which fails to comply with this analysis shall be replacement thereof by the company without extra cost.

LANDTEC North America, Inc.
 850 S. Via Lata, Suite 112
 Colton, CA 92324
 Phone: (909) 783-3636 • Fax: (909) 825-0591



ANALYSIS CERTIFICATION

METHOD OF PREPARATION: GRAVIMETRIC / PRESSURE TRANSFILLING

ANALYTICAL PRINCIPLE: GC (FID)

ACCURACY:: ± 2% Relative

LOT Number	COMP 1 O ₂	COMP 2 N ₂	COMP 3	COMP 4	COMP 5	COMP 6	Exp Date
1366017	21%	Balance	(<1 PPM THC)				Aug/2015

Gas mixtures manufactured with balances calibrated by an ISO 17025 accredited company. Results are in mole percent, unless otherwise indicated. Mixtures are prepared by either partial pressure or gravimetric method. Gas mixtures are traceable to N.I.S.T. weights and/or N.I.S.T. gas mixture reference materials

No effecting environmental conditions during analysis.

FILL PRESSURE 500 PSIG @ 70f

EXPIRATION DATE: August 17, 2015

CERTIFICATION DATE: August 17, 2012

ANALYSIS BY: Ray Turgeon

"We certify that all the cylinders for the Lot numbers identified herein are manufactured and tested within the requirements of CFR 49 part 178.65 and that physical and chemical test reports are on file and copies will be furnished upon request."

The only liability of this company for gas which fails to comply with this analysis shall be replacement thereof by the company without extra cost.

LANDTEC North America, Inc.
 850 S. Via Lata, Suite 112
 Colton, CA 92324
 Phone: (909) 783-3636 • Fax: (909) 825-0591

ATTACHMENT 3

Table 1 – NSPS SEM Data

Table 2 – 10-Day SEM Recheck Data

Table 3 – 30-Day SEM Recheck Data

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
1	3	Start of NSPS route
2	3	
3	3	
4	2	
5	2	
6	3	
7	3	
8	3	
9	3	
10	3	
11	3	
12	3	
13	3	
14	3	
15	3	
16	3	
17	6	
18	8	
19	9	
20	9	
21	7	
22	8	
23	9	
24	13	
25	18	
26	11	
27	34	
28	21	
29	66	
30	50	
31	132	
32	22	
33	19	
34	14	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
35	37	
36	58	
37	41	
38	32	
39	43	
40	23	
41	17	
42	66	
43	65	
44	21	
45	8	
46	12	
47	13	
48	10	
49	9	
50	6	
51	6	
52	6	
53	6	
54	6	
55	6	
56	5	
57	5	
58	5	
59	5	
60	5	
61	5	
62	5	
63	5	
64	5	
65	5	
66	5	
67	5	
68	5	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
69	5	
70	5	
71	5	
72	5	
73	5	
74	5	
75	5	
76	5	
77	5	
78	5	
79	6	
80	5	
81	6	
82	5	
83	5	
84	5	
85	5	
86	5	
87	5	
88	5	
89	5	
90	7	
91	9	
92	8	
93	6	
94	7	
95	6	
96	13	
97	13	
98	31	
99	11	
100	461	
101	41	
102	75	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
103	108	
104	88	
105	72	
106	284	
107	251	
108	237	
109	309	
110	8020	Base of well EW-4-30
111	165	
112	11	
113	12	
114	57	
115	12	
116	11	
117	41	
118	16	
119	16	
120	20	
121	9	
122	7	
123	7	
124	7	
125	6	
126	6	
127	6	
128	6	
129	5	
130	5	
131	5	
132	6	
133	6	
134	6	
135	6	
136	6	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
137	6	
138	6	
139	6	
140	6	
141	6	
142	6	
143	6	
144	6	
145	6	
146	6	
147	6	
148	6	
149	6	
150	6	
151	6	
152	6	
153	6	
154	6	
155	6	
156	6	
157	6	
158	6	
159	6	
160	6	
161	6	
162	6	
163	6	
164	6	
165	6	
166	38	
167	14	
168	34	
169	62	
170	66	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
171	116	
172	98	
173	50	
174	56	
175	482	
176	1086	50 ft SE of EW-4-28 and HW-4-20
177	1353	50 ft NE of EW-4-27R
178	20	
179	12	
180	47	
181	51	
182	42	
183	6	
184	6	
185	6	
186	6	
187	7	
188	6	
189	6	
190	6	
191	6	
192	6	
193	6	
194	6	
195	6	
196	6	
197	6	
198	6	
199	6	
200	6	
201	6	
202	7	
203	6	
204	7	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
205	6	
206	7	
207	7	
208	6	
209	6	
210	6	
211	6	
212	7	
213	6	
214	6	
215	6	
216	6	
217	6	
218	6	
219	6	
220	6	
221	6	
222	6	
223	6	
224	6	
225	6	
226	6	
227	6	
228	6	
229	6	
230	6	
231	6	
232	6	
233	6	
234	6	
235	6	
236	6	
237	7	
238	6	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
239	7	
240	6	
241	6	
242	6	
243	6	
244	6	
245	6	
246	6	
247	6	
248	6	
249	6	
250	6	
251	6	
252	6	
253	6	
254	6	
255	6	
256	6	
257	7	
258	7	
259	6	
260	6	
261	6	
262	6	
263	7	
264	6	
265	6	
266	6	
267	6	
268	6	
269	6	
270	6	
271	6	
272	6	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
273	6	
274	6	
275	6	
276	6	
277	6	
278	6	
279	6	
280	6	
281	6	
282	7	
283	7	
284	9	
285	18	
286	30	
287	15	
288	57	
289	101	
290	116	
291	109	
292	140	
293	30	
294	64	
295	51	
296	81	
297	142	
298	53	
299	69	
300	31	
301	69	
302	20	
303	9	
304	10	
305	9	
306	9	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
307	8	
308	8	
309	7	
310	6	
311	7	
312	6	
313	7	
314	7	
315	7	
316	9	
317	12	
318	10	
319	14	
320	10	
321	11	
322	12	
323	8	
324	7	
325	7	
326	7	
327	7	
328	6	
329	7	
330	9	
331	7	
332	7	
333	7	
334	8	
335	8	
336	7	
337	7	
338	7	
339	7	
340	7	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
341	9	
342	10	
343	12	
344	11	
345	11	
346	9	
347	8	
348	7	
349	7	
350	7	
351	7	
352	7	
353	7	
354	7	
355	7	
356	7	
357	7	
358	7	
359	7	
360	7	
361	7	
362	7	
363	7	
364	7	
365	7	
366	7	
367	7	
368	7	
369	7	
370	8	
371	7	
372	7	
373	6	
374	6	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
375	6	
376	6	
377	5	
378	5	
379	6	
380	6	
381	7	
382	60	
383	7	
384	14	
385	49	
386	27	
387	26	
388	146	
389	163	
390	36	
391	22	
392	25	
393	7	
394	14	
395	20	
396	24	
397	9	
398	14	
399	11	
400	8	
401	7	
402	11	
403	8	
404	14	
405	16	
406	40	
407	23	
408	51	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
409	38	
410	15	
411	30	
412	17	
413	10	
414	9	
415	7	
416	6	
417	6	
418	6	
419	8	
420	7	
421	7	
422	6	
423	6	
424	6	
425	6	
426	6	
427	6	
428	6	
429	6	
430	7	
431	6	
432	6	
433	6	
434	6	
435	7	
436	6	
437	6	
438	6	
439	6	
440	7	
441	7	
442	6	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
443	8	
444	8	
445	7	
446	8	
447	7	
448	7	
449	8	
450	11	
451	10	
452	8	
453	8	
454	12	
455	23	
456	55	
457	472	
458	33	
459	25	
460	21	
461	48	
462	20	
463	8	
464	8	
465	11	
466	15	
467	9	
468	19	
469	20	
470	22	
471	15	
472	22	
473	18	
474	17	
475	19	
476	28	

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

**TABLE 1. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

Third Quarter - August 26, 2014

Tag	FID Conc. (ppm)	Notes
477	23	
478	18	
479	14	
480	11	
481	8	
482	7	
483	6	
484	6	
485	6	
486	17	
487	86	
488	146	
489	256	
490	25	
491	196	
492	20	
493	50	
494	53	
495	38	
496	42	
497	14	
498	7	
499	9	
500	16	
501	7	
502	7	End of NSPS route

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

15 OF 15

**TABLE 2. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

10-Day Rechecks - September 5, 2014

Tag	FID Conc. (ppm)	Notes
110	266	Base of well EW-4-30
176	171	50 ft SE of EW-4-28 and HW-4-20
177	128	50 ft NE of EW-4-27R

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

1 OF 1

**TABLE 3. NSPS SURFACE EMISSIONS TESTING RESULTS
IESI Bethlehem Landfill, Bethlehem, PA**

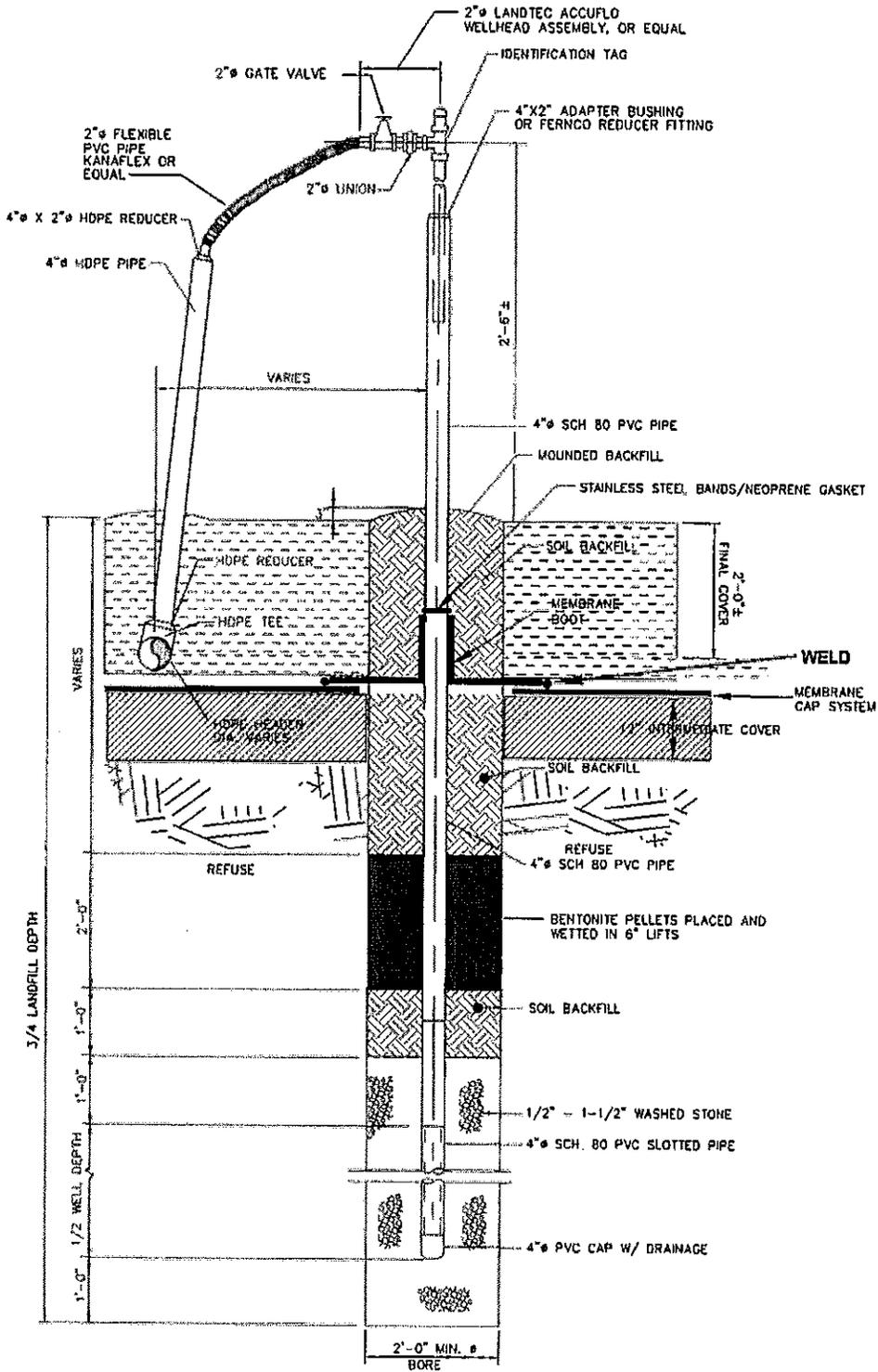
30-Day Rechecks - September 25, 2014

Tag	FID Conc. (ppm)	Notes
110	327	Base of well EW-4-30
176	216	50 ft SE of EW-4-28 and HW-4-20
177	126	50 ft NE of EW-4-27R

ppm - parts per million
nd - not detected
<1 - less than 1

SCS FIELD SERVICES
717-671-5102

1 OF 1



D:\DWG\BETHELEHEM\2014\1162_1DTL13-0.dwg, LI, 11/24/2014, 9:27:45 AM



martin and martin incorporated
 phone: (717) 37 south main street • suite A
 264-6759 chambersburg, pennsylvania . 17201

EXTRACTION WELL BOOT DETAIL

LOWER SAUCON TWP NORTHAMPTON CO.
PA Bethlehem Landfill Corp.
 A Progressive Waste Solutions Company
 PENNSYLVANIA

Scale:	NTS
Job #	1162.1
Date:	11.4
By:	MSH
Chk'd:	KNB