

June 24, 2019

Project No. 19116224

**Mr. Mark Amann**

New York State Dept. of Environmental Conservation  
6274 E. Avon-Lima Road  
Avon, New York 14414-9519

**RE: CERTIFICATION REPORT ON CELL 10/11 INTERIM SOIL CAP CONSTRUCTION  
HIGH ACRES LANDFILL, FAIRPORT, NEW YORK**

Dear Mr. Amann:

On behalf of Waste Management of New York, LLC (WMNY), Golder Associates Inc. (Golder) has prepared this letter report to document construction of the Cell 10/11 interim soil cap at the High Acres Landfill and Recycling Center (HALRC), located in the Town of Perinton, Monroe County, New York. The Cell 10/11 interim soil cap was constructed in accordance with the letter prepared by Barton & Loguidice (B&L), dated July 12, 2018, providing Construction Quality Control/Construction Quality Assurance (CQC/CQA) procedures to be implemented during interim soil cap construction. The New York State Department of Environmental Conservation (NYSDEC) approved the CQC/CQA procedures in a letter addressed to WMNY dated July 12, 2018. Golder provided part-time monitoring of the construction procedures and materials employed by the contractors and implemented the CQA program, and as such, is submitting this letter report on behalf of WMNY.

**PROJECT OVERVIEW**

The Cell 10/11 interim soil cap construction covers approximately 25 acres in area and ties into the existing exposed geomembrane cover on the north and east sides of the soil cap. The west and south sides tie into the existing interim cover soil. The limits of the Cell 10/11 interim soil cap are shown on Record Drawing No. J-01 provided in Attachment 1.

This letter report documents the construction and CQA activities conducted during the placement of the Cell 10/11 interim soil cap in 2018 and 2019, which were performed in accordance with the B&L letter dated July 12, 2018. This letter report presents all field observations and documentation, photographs, CQA test data, and other pertinent information associated with the following construction activities:

- Interim cover preparation;
- Soil placement and compaction; and,
- Topsoil placement.

In September 2018 Hoffman Construction Services (HCS) of Butler, Pennsylvania was retained by WMNY to perform earthwork activities associated with the Cell 10/11 interim soil cap. HCS commenced earthwork activities and established sediment and erosion control measures. Due to inclement weather beginning in late October 2018, HCS was unable to complete the interim soil cap project in 2018. The wet conditions of the soil prevented the minimum compaction requirements from being achieved. This suspension of soil cap placement was discussed with and agreed to by the NYSDEC and completion of the project was delayed until the Spring of 2019. In March 2019, Zoladz Construction Services (Zoladz) of Alden, New York was retained by WMNY to complete the Cell 10/11 interim soil cap.

Golder performed field CQA activities during placement of the interim soil cap under contract to WMNY. Golder conducted field documentation of construction activities that included photographic documentation. CQA survey was conducted by Passero Associates, L.L.C. (Passero) of Rochester, New York. The record survey drawing showing the Cell 10/11 interim soil cap is provided in Attachment 1. Selected photographs are provided in Attachment 2.

Conformance testing of soil materials was conducted by 3<sup>rd</sup> Rock Laboratories of East Aurora, New York under contract to Golder. In-place compaction (moisture/density) testing was performed by Golder. The compaction (moisture/density) tests were performed using a Troxler Nuclear Density Gauge (Model 3440) in general accordance with American Society of Testing and Materials (ASTM) Test Method D6938.

This letter report serves as a comprehensive record of CQA documentation and test results associated with the Cell 10/11 interim soil cap construction. The CQA test results, pertinent project documentation, and Record Drawings are included as attachments to this letter report.

## DESCRIPTION OF CONSTRUCTION

### Interim Soil Cap Material

Fill used to construct the Cell 10/11 interim soil cap consisted of native on-site soil excavated from the Cell 13A mass excavation. The material was required to have a maximum particle size no greater than 6 inches and be free of deleterious material such as ice, organics, frozen soil, saturated soil, or other material considered unsuitable by the CQA Engineer.

In accordance with approved CQA/CQC procedures provided in B&L letter dated July 12, 2018, pre-construction samples of on-site material were obtained for testing as follows:

Test	Method	Frequency
Moisture Content	ASTM <sup>1</sup> D2216	1 per 10,000 yd <sup>3</sup>
Atterberg limits	ASTM D4318	1 per 10,000 yd <sup>3</sup>
Grain Size Analysis	ASTM D422	1 per 10,000 yd <sup>3</sup>
Modified Proctor Compaction	ASTM D1557	1 per 10,000 yd <sup>3</sup>
Remolded Permeability	ASTM D5084	1 per 10,000 yd <sup>3</sup>

<sup>1</sup> American Society for Testing and Materials

The total estimated volume of interim soil cap placed was approximately 80,667 cubic yards (yd<sup>3</sup>). Golder obtained 9 samples throughout construction prior to placement to meet the required frequency listed above. A summary of the number and types of tests performed is as follows:

Test	No. of Tests
Moisture Content	9
Atterberg limits	9
Grain Size Analysis	9
Modified Proctor Compaction	9
Remolded Permeability	9

Laboratory testing was conducted by 3rd Rock. The laboratory test results for interim soil cap materials are provided in Attachment 3. All the interim soil cap samples from the Cell 13A mass excavation area were approved. It should be noted that only pockets of sandy soil from the excavation were excluded from the interim soil cap.

### Interim Soil Cap Placement

The minimum 24-inch thick interim soil cap material was placed on top of the pre-existing minimum one-foot thick intermediate cover. The intermediate cover soil surface was rough graded prior to placement of the interim soil cap in order to fill low area which were holding water and had noticeable softer soils. Prior to placement of fill, the intermediate cover soil was compacted with the padfoot compactor. The interim soil cap was constructed by placing two separate lifts. Each lift was placed to an approximate 13- to 14-inch loose thickness using a low ground pressure bulldozer and compacted with a Caterpillar CP563E padfoot vibratory compactor to achieve an approximate 12-inch final thickness. Lift thickness was controlled by the Contractors using GPS-guided bulldozers. Golder observed fill placement procedures and verified lift thickness as construction progressed. At times, the Contractor used a Caterpillar CS54 smooth drum vibratory roller for additional compaction prior to the placement of the following lift and to seal the lift prior to expected rain events.

Following field moisture/density testing, the surface of each lift was scarified by tracking with the cleats of the bulldozer. Lifts observed to be too dry were scarified and wetted using a water truck to moisture condition the surface of the lift. Lifts which were too wet were scarified to allow for drying prior to compaction.

Fill placement began on September 6, 2018 and was substantially completed on May 23, 2019. No placement activities occurred between October 23, 2018 and March 28, 2019 due to inclement weather.

### Field Test Results

The interim soil cap was tested by Golder for compaction using a Troxler 3440 nuclear moisture/density gauge in general accordance with ASTM D6938. Field moisture/density tests on the fill were taken on a regular basis throughout construction at the approximate frequency of one test per 10,000 square feet per lift. Based on a 25-acre area and two lifts, a minimum number of 218 moisture/density tests were required. Golder performed a total of 254 tests, meeting the minimum requirement of one test per 10,000 square feet. The modified Proctor curves used for testing the fill were averaged together, in most cases, from the samples obtained during preconstruction

testing. Areas not compacted to at least 90 percent of the modified Proctor (ASTM D1557) maximum dry density, as determined by field moisture/density testing, were subjected to additional rolling by the compactor until retesting indicated that the compaction specification had been achieved. In several areas where the material was excessively wet, the material was reworked and allowed to dry prior to compaction.

A summary table of the field moisture/density test results on the interim soil cap is presented in Attachment 4. All final field moisture/density test results on the Cell 10/11 interim soil cap met the requirements of the CQA/CQC procedures provided in B&L letter dated July 12, 2018.

### **Topsoil Placement**

Topsoil was placed to a nominal depth of 4 to 6 inches over the entire 24-inch thick Cell 10/11 interim soil cap area. Topsoil was obtained from an on-site stockpile located near Sedimentation Basin No. 5 that was created during the topsoil stripping operations during previous cell construction activities. In addition, topsoil was obtained during stripping operations of the Cell 11MID2 overliner slope. Topsoil was typically spread and graded by a John Deere 850 bulldozer.

### **Seeding**

The Cell 10/11 interim soil cap side slopes were hydroseeded by Hydroseeding Technologies in October 2018 and again in May 2019, using a mix of seed and mulch. The top section of the interim soil cap was conventionally seeded by WMNY using a spreader with a local seed mix. No mulch was placed on the top portion of the interim soil cap.

### **Record Surveying**

Completed sections of the Cell 10/11 interim soil cap were surveyed by Passero on an approximate 50-foot square grid, at the toe and crest of the slopes, and at all grade breaks. A topographic plan of the final conditions based on the field survey performed by Passero is shown on Drawing No. J-01 entitled "Final Conditions Cell 10/11 Interim Soil Cap" and is provided in Attachment 1.

### **CERTIFICATION**

Golder certifies that, based upon and subject to the conditions in the B&L letter dated July 12, 2018, Cell 10/11 interim soil cap has been constructed in accordance with the approved construction quality assurance letter referenced above. All field CQA services provided by Golder were performed under the supervision of a Professional Engineer (P.E.) registered in the State of New York. Record drawings and documentation are provided as attachments to this letter report. This Certification of Construction is issued under the seal of Mr. Francis T. Adams, New York, New York State P.E. License No. 067131-1.

We trust that this letter report is satisfactory. Should you have any questions or require additional information, please call the undersigned at (856) 793-2005.

Very truly yours,

**Golder Associates Inc.**

*Francis T. Adams*

Francis T. Adams, P.E.  
Quality Assurance/Quality Control Engineer  
New York State P.E. License No. 067131-1



June 24, 2019

FTA/bjb/dml

Attachments: Attachment 1 – Drawing J-01  
Attachment 2 – Photographs  
Attachment 3 – Laboratory Data  
Attachment 4 – Field Moisture Density Test Results

CC: Mr. Jeff Richardson, WMNY  
Mr. David Cross, WMNY

[https://golderassociates.sharepoint.com/sites/103555/deliverables/high acres soil cap/high acres soil cap final \(6-21-19\).docx](https://golderassociates.sharepoint.com/sites/103555/deliverables/high%20acres%20soil%20cap/high%20acres%20soil%20cap%20final%20(6-21-19).docx)

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 1:** Test pit for cap material

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 2:** Test pit for cap material

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 3:** Gas well boot in cap area

HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS



Photo 4: Gas well boot in cap area

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 5:** Lined downchute on north slope of cap area

HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS



**Photo 6:** Welding liner for downchute on north slope of cap

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 7:** Backfilled anchor trench for downchute on north slope of cap

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 8:** Completed downchute grading

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 9:** Completed downchute grading

HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS



Photo 10: Lift one in northeast area of cap

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 11:** Completed second lift on north slope of cap area

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 12:** Second lift on north slope of cap

HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS



**Photo 13:** Grading lift 2 using GPS guided equipment.

HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS



**Photo 14:** Grading lift one on east slope of cap area

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 15:** Placing topsoil on east slope of cap

HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS

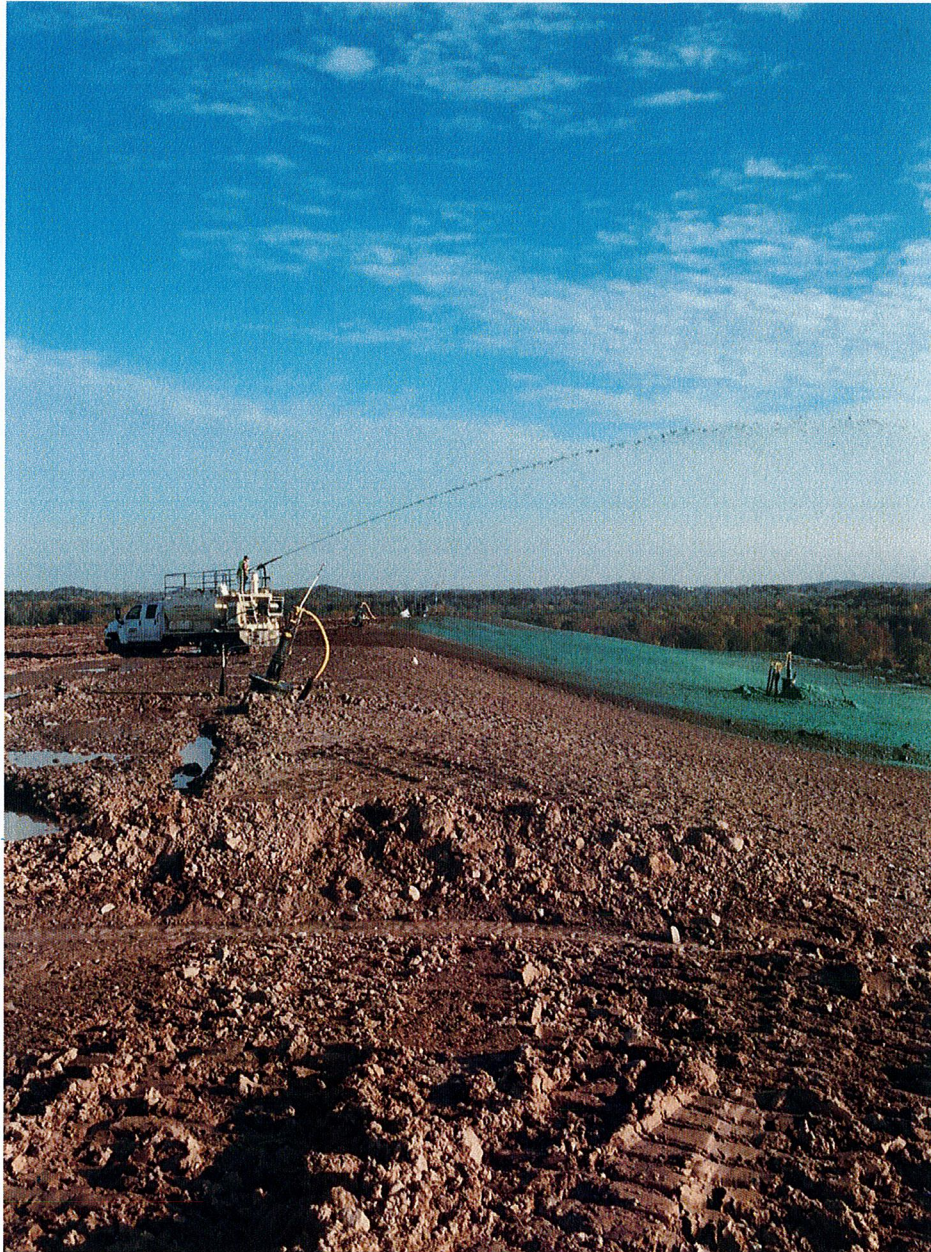


Photo 16: Hydroseeding east slope of cap

**HIGH ACRES LANDFILL - 2018 CAP PHOTOGRAPHS**



**Photo 17:** Northeast corner of cap after seeding

ATTACHMENT 4

## Field Moisture Density Test Results

**ATTACHMENT 4**  
**SUMMARY FIELD MOISTURE/DENSITY TEST RESULTS FOR CAP FILL**  
**WASTE MANAGEMENT OF NEW YORK, L.L.C.**  
**CELL 10/11 SOIL CAP CONSTRUCTION**  
**HIGH ACRES LANDFILL, FAIRPORT, NEW YORK**

DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	PROCTOR CURVE		PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST			CURVE NO.	MAX D.D. (pcf)			
9/6/18	C-01	6"	Lift 1	1126659	822351	128.0	4.3	average of samples 1 - 4	140.4	91.2	PASS	
9/6/18	C-02	6"	Lift 1	1126716	822371	126.7	4.3	average of samples 1 - 4	140.4	90.2	PASS	
9/6/18	C-03	6"	Lift 1	1126736	822439	127.0	3.8	average of samples 1 - 4	140.4	90.5	PASS	
9/6/18	C-04	8"	Lift 1	1126691	822510	131.1	3.3	average of samples 1 - 4	140.4	93.4	PASS	
9/6/18	C-05	10"	Lift 1	1126736	822569	134.4	4.3	average of samples 1 - 4	140.4	95.7	PASS	
9/6/18	C-06	12"	Lift 1	1126762	822507	131.1	4.8	average of samples 1 - 4	140.4	93.4	PASS	
9/6/18	C-07	12"	Lift 1	1126825	822584	133.3	3.1	average of samples 1 - 4	140.4	94.9	PASS	
9/6/18	C-08	12"	Lift 1	1126864	822664	129.8	4.8	average of samples 1 - 4	140.4	92.5	PASS	
9/6/18	C-09	12"	Lift 1	1126877	822746	135.1	4.2	average of samples 1 - 4	140.4	96.2	PASS	
9/6/18	C-10	12"	Lift 1	1126953	822824	136.1	4.2	average of samples 1 - 4	140.4	96.9	PASS	
9/6/18	C-11	12"	Lift 1	1126776	822858	130.8	5.4	average of samples 1 - 4	140.4	93.2	PASS	
9/6/18	C-12	12"	Lift 1	1126689	822824	133.3	4.9	average of samples 1 - 4	140.4	94.9	PASS	
9/6/18	C-13	10"	Lift 1	1126609	822826	136.1	5.5	average of samples 1 - 4	140.4	96.9	PASS	
9/6/18	C-14	12"	Lift 1	1126591	822767	129.7	5.3	average of samples 1 - 4	140.4	92.4	PASS	
9/6/18	C-15	12"	Lift 1	1126661	822761	137.9	4.8	average of samples 1 - 4	140.4	98.2	PASS	
9/6/18	C-16	12"	Lift 1	1126735	822771	134.5	4.7	average of samples 1 - 4	140.4	95.8	PASS	
9/6/18	C-17	12"	Lift 1	1126788	822716	131.9	4.3	average of samples 1 - 4	140.4	93.9	PASS	
9/6/18	C-18	12"	Lift 1	1126771	822625	136.7	4.0	average of samples 1 - 4	140.4	97.4	PASS	
9/6/18	C-19	12"	Lift 1	1126709	822689	133.8	5.3	average of samples 1 - 4	140.4	95.3	PASS	
9/17/18	C-20	12"	Lift 1	1126389	822689	132.8	4.9	average of samples 1 - 4	140.4	94.6	PASS	
9/17/18	C-21	12"	Lift 1	1126387	822745	132.7	3.0	average of samples 1 - 4	140.4	94.5	PASS	
9/17/18	C-22	12"	Lift 1	1126387	822827	140.5	3.5	average of samples 1 - 4	140.4	100.1	PASS	
9/17/18	C-23	8"	Lift 1	1126464	822840	129.2	3.6	average of samples 1 - 4	140.4	92.0	PASS	
9/17/18	C-24	12"	Lift 1	1126521	822804	133.8	4.0	average of samples 1 - 4	140.4	95.3	PASS	
9/17/18	C-25	12"	Lift 1	1126532	822715	138.8	4.4	average of samples 1 - 4	140.4	98.9	PASS	
9/17/18	C-26	12"	Lift 1	1126456	822724	138.7	2.7	average of samples 1 - 4	140.4	98.8	PASS	
9/17/18	C-27	12"	Lift 1	1126607	822496	140.7	3.5	average of samples 1 - 4	140.4	100.2	PASS	
9/17/18	C-28	12"	Lift 1	1126647	822558	136.3	4.0	average of samples 1 - 4	140.4	97.1	PASS	
9/17/18	C-29	10"	Lift 1	1126568	822564	135.9	5.0	average of samples 1 - 4	140.4	96.8	PASS	
9/17/18	C-30	12"	Lift 1	1126474	822565	136.2	4.6	average of samples 1 - 4	140.4	97.0	PASS	
9/17/18	C-31	12"	Lift 1	1126515	822493	138.4	6.2	average of samples 1 - 4	140.4	98.6	PASS	
9/17/18	C-32	12"	Lift 1	1126563	822432	136.3	3.0	average of samples 1 - 4	140.4	97.1	PASS	
9/17/18	C-33	12"	Lift 1	1126615	822346	137.3	4.5	average of samples 1 - 4	140.4	97.8	PASS	
9/17/18	C-34	10"	Lift 2	1126660	822389	135.1	5.2	average of samples 1 - 4	140.4	96.2	PASS	
9/17/18	C-35	12"	Lift 2	1126685	822457	131.0	4.0	average of samples 1 - 4	140.4	93.3	PASS	

**ATTACHMENT 4  
SUMMARY FIELD MOISTURE/DENSITY TEST RESULTS FOR CAP FILL  
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DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	PROCTOR CURVE			PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST			CURVE NO.	MAX D.D. (pcf)	OPT. M.C. (%)			
9/17/18	C - 36	12"	Lift 2	1126734	822519	127.4	4.0	average of samples 1 - 4	140.4	5.0	90.7	PASS	
9/17/18	C - 37	12"	Lift 2	1126745	822580	129.8	3.6	average of samples 1 - 4	140.4	5.0	92.5	PASS	
9/17/18	C - 38	12"	Lift 2	1126810	822550	131.5	6.2	average of samples 1 - 4	140.4	5.0	93.7	PASS	
9/17/18	C - 39	12"	Lift 2	1126783	822490	128.6	4.7	average of samples 1 - 4	140.4	5.0	91.6	PASS	
9/17/18	C - 40	12"	Lift 2	1126768	822422	131.5	4.3	average of samples 1 - 4	140.4	5.0	93.7	PASS	
9/17/18	C - 41	12"	Lift 2	1126695	822458	132.1	4.0	average of samples 1 - 4	140.4	5.0	94.1	PASS	
9/17/18	C - 42	12"	Lift 2	1126719	822344	133.3	4.5	average of samples 1 - 4	140.4	5.0	94.9	PASS	
9/18/18	C - 43	12"	Lift 2	1126750	822697	133.9	3.1	average of samples 1 - 4	140.4	5.0	95.4	PASS	
9/18/18	C - 44	12"	Lift 2	1126828	822669	134.4	3.6	average of samples 1 - 4	140.4	5.0	95.7	PASS	
9/18/18	C - 45	12"	Lift 2	1126854	822760	136.1	5.3	average of samples 1 - 4	140.4	5.0	96.9	PASS	
9/18/18	C - 46	12"	Lift 2	1126817	822841	136.5	3.4	average of samples 1 - 4	140.4	5.0	97.2	PASS	
9/18/18	C - 47	8"	Lift 2	1126732	822838	130.6	4.1	average of samples 1 - 4	140.4	5.0	93.0	PASS	
9/18/18	C - 48	12"	Lift 2	1126644	822819	133.1	3.8	average of samples 1 - 4	140.4	5.0	94.8	PASS	
9/18/18	C - 49	12"	Lift 2	1126559	822816	130.7	3.8	average of samples 1 - 4	140.4	5.0	93.1	PASS	
9/18/18	C - 50	12"	Lift 2	1126483	822802	133.8	4.3	average of samples 1 - 4	140.4	5.0	95.3	PASS	
9/18/18	C - 51	12"	Lift 2	1126397	822793	135.8	3.2	average of samples 1 - 4	140.4	5.0	96.7	PASS	
9/18/18	C - 52	12"	Lift 2	1126395	822713	135.9	3.8	average of samples 1 - 4	140.4	5.0	96.8	PASS	
9/18/18	C - 53	12"	Lift 2	1126478	822720	137.7	4.6	average of samples 1 - 4	140.4	5.0	98.1	PASS	
9/18/18	C - 54	12"	Lift 2	1126555	822744	136.4	4.1	average of samples 1 - 4	140.4	5.0	97.2	PASS	
9/18/18	C - 55	12"	Lift 2	1126631	822757	132.5	3.4	average of samples 1 - 4	140.4	5.0	94.4	PASS	
9/18/18	C - 56	12"	Lift 2	1126773	822779	133.0	3.4	average of samples 1 - 4	140.4	5.0	94.7	PASS	
9/18/18	C - 57	12"	Lift 1	1126319	822789	129.2	5.4	average of samples 1 - 4	140.4	5.0	92.0	PASS	
9/18/18	C - 58	12"	Lift 1	1126237	822779	134.5	4.7	average of samples 1 - 4	140.4	5.0	95.8	PASS	
9/18/18	C - 59	12"	Lift 1	1126237	822701	133.5	5.1	average of samples 1 - 4	140.4	5.0	95.1	PASS	
9/18/18	C - 60	12"	Lift 1	1126316	822708	138.4	3.7	average of samples 1 - 4	140.4	5.0	98.6	PASS	
10/1/18	C - 61	12"	Lift 1	1126501	822489	139.3	6.2	average of samples 1 - 4	140.4	5.0	99.2	PASS	
10/1/18	C - 62	12"	Lift 1	1126501	822580	138.3*	6.3	average of samples 1 - 4	140.4	5.0	98.5	PASS	
10/1/18	C - 63	12"	Lift 1	1126490	822657	142.8	5.6	average of samples 1 - 4	140.4	5.0	101.7	PASS	
10/1/18	C - 64	12"	Lift 1	1126410	822661	133.5	5.2	average of samples 1 - 4	140.4	5.0	95.1	PASS	
10/1/18	C - 65	12"	Lift 1	1126425	822584	136.3	4.7	average of samples 1 - 4	140.4	5.0	97.1	PASS	
10/1/18	C - 66	12"	Lift 1	1126432	822500	136.8	5.9	average of samples 1 - 4	140.4	5.0	97.4	PASS	
10/1/18	C - 67	12"	Lift 1	1126441	822418	141.1	5.5	average of samples 1 - 4	140.4	5.0	100.5	PASS	
10/9/18	C - 68	12"	Lift 1	1126069	822412	142.7	5.0	average of samples 1 - 4	140.4	5.0	101.6	PASS	
10/9/18	C - 69	12"	Lift 1	1125926	822620	138.3	4.8	average of samples 1 - 4	140.4	5.0	98.5	PASS	
10/9/18	C - 70	12"	Lift 1	1125929	822538	137.2	4.6	average of samples 1 - 4	140.4	5.0	97.7	PASS	



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DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	CURVE NO.	MAX D.D. (pcf)	OPT. M.C. (%)	PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST								
10/9/18	C - 71	12"	Lift 1	1125928	822463	134.1	4.9	average of samples 1 - 4	140.4	5.0	95.5	PASS	
10/9/18	C - 72	12"	Lift 1	1125919	822382	135.7	4.6	average of samples 1 - 4	140.4	5.0	96.7	PASS	
10/10/18	C - 73	12"	Lift 1	1126106	822630	130.4	3.5	average of samples 1 - 4	140.4	5.0	92.9	PASS	
10/10/18	C - 74	12"	Lift 1	1126104	822552	141.0	4.2	average of samples 1 - 4	140.4	5.0	100.4	PASS	
10/10/18	C - 75	10"	Lift 1	1126104	822476	138.8	4.2	average of samples 1 - 4	140.4	5.0	98.9	PASS	
10/10/18	C - 76	12"	Lift 1	1126019	822462	143.0	4.3	average of samples 1 - 4	140.4	5.0	101.9	PASS	
10/10/18	C - 77	12"	Lift 1	1126011	822538	138.9	3.9	average of samples 1 - 4	140.4	5.0	98.9	PASS	
10/10/18	C - 78	12"	Lift 1	1126000	822626	131.9	6.4	average of samples 1 - 4	140.4	5.0	93.9	PASS	
10/10/18	C - 79	12"	Lift 1	1125953	822708	139.8	4.0	average of samples 1 - 4	140.4	5.0	99.6	PASS	
10/10/18	C - 80	12"	Lift 1	1125872	822752	137.6	4.3	average of samples 1 - 4	140.4	5.0	98.0	PASS	
10/10/18	C - 81	12"	Lift 1	1125816	822663	135.5	4.4	average of samples 1 - 4	140.4	5.0	96.5	PASS	
10/10/18	C - 82	12"	Lift 1	1125926	822614	134.4	3.9	average of samples 1 - 4	140.4	5.0	95.7	PASS	
10/10/18	C - 83	12"	Lift 1	1126221	822611	129.1	6.6	average of samples 1 - 4	140.4	5.0	92.0	PASS	
10/10/18	C - 84	12"	Lift 1	1126233	822517	130.3	5.9	average of samples 1 - 4	140.4	5.0	92.8	PASS	
10/10/18	C - 85	12"	Lift 1	1126241	822431	134.9	7.3	average of samples 1 - 4	140.4	5.0	96.1	PASS	
10/10/18	C - 86	12"	Lift 1	1126327	822453	146.1	5.2	average of samples 1 - 4	140.4	5.0	104.1	PASS	
10/10/18	C - 87	12"	Lift 1	1126332	822546	139.5	6.1	average of samples 1 - 4	140.4	5.0	99.4	PASS	
10/10/18	C - 88	12"	Lift 1	1126329	822634	133.4	7.3	average of samples 1 - 4	140.4	5.0	95.0	PASS	
10/10/18	C - 89	12"	Lift 1	1126059	822744	133.0	5.6	average of samples 1 - 4	140.4	5.0	94.7	PASS	
10/10/18	C - 90	12"	Lift 1	1126092	822805	134.7	5.2	average of samples 1 - 4	140.4	5.0	95.9	PASS	
10/10/18	C - 91	12"	Lift 1	1126003	822836	137.3	4.1	average of samples 1 - 4	140.4	5.0	97.8	PASS	
10/10/18	C - 92	12"	Lift 1	1125965	822779	131.1	4.1	average of samples 1 - 4	140.4	5.0	93.4	PASS	
10/10/18	C - 93	12"	Lift 1	1125881	822540	138.5	3.9	average of samples 1 - 4	140.4	5.0	98.6	PASS	
10/12/18	C - 94	12"	Lift 1	1126563	822367	138.3	3.7	average of samples 1 - 4	140.4	5.0	98.5	PASS	
10/12/18	C - 95	12"	Lift 1	1126457	822356	144.5	3.5	average of samples 1 - 4	140.4	5.0	102.9	PASS	
10/12/18	C - 96	12"	Lift 1	1126349	822338	141.2	4.0	average of samples 1 - 4	140.4	5.0	100.6	PASS	
10/12/18	C - 97	12"	Lift 1	1126307	822370	145.2	4.5	average of samples 1 - 4	140.4	5.0	103.4	PASS	
10/12/18	C - 98	12"	Lift 1	1125871	822342	141.2	5.0	average of samples 1 - 4	140.4	5.0	100.6	PASS	
10/12/18	C - 99	12"	Lift 1	1125960	822315	138.2	3.8	average of samples 1 - 4	140.4	5.0	98.4	PASS	
10/12/18	C - 100	12"	Lift 1	1126276	822257	127.5	6.4	average of samples 1 - 4	140.4	5.0	90.8	PASS	
10/12/18	C - 101	12"	Lift 1	1126182	822220	140.4	4.4	average of samples 1 - 4	140.4	5.0	100.0	PASS	
10/12/18	C - 102	12"	Lift 1	1126094	822262	140.8	5.6	average of samples 1 - 4	140.4	5.0	100.3	PASS	
10/12/18	C - 103	12"	Lift 1	1126034	822258	134.3	7.0	average of samples 1 - 4	140.4	5.0	95.7	PASS	
10/12/18	C - 104	12"	Lift 1	1125929	822237	130.2	7.2	average of samples 1 - 4	140.4	5.0	92.7	PASS	
10/17/18	C - 105	10"	Lift 2	1125914	822624	136.1	4.4	average of samples 1 - 4	140.4	5.0	96.9	PASS	



**ATTACHMENT 4**  
**SUMMARY FIELD MOISTURE/DENSITY TEST RESULTS FOR CAP FILL**  
**WASTE MANAGEMENT OF NEW YORK, L.L.C.**  
**CELL 10/11 SOIL CAP CONSTRUCTION**  
**HIGH ACRES LANDFILL, FAIRPORT, NEW YORK**

DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	PROCTOR CURVE			PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST			CURVE NO.	MAX D.D. (pcf)	OPT. M.C. (%)			
10/17/18	C - 106	12"	Lift 2	1125901	822696	133.1	6.1	average of samples 1 - 4	140.4	5.0	94.8	PASS	
10/17/18	C - 107	12"	Lift 2	1125940	822775	138.3	3.0	average of samples 1 - 4	140.4	5.0	98.5	PASS	
10/17/18	C - 108	12"	Lift 2	1125996	822736	130.7	3.1	average of samples 1 - 4	140.4	5.0	93.1	PASS	
10/17/18	C - 109	12"	Lift 2	1126044	822834	138.0	5.1	average of samples 1 - 4	140.4	5.0	98.3	PASS	
10/17/18	C - 110	6"	Lift 2	1126121	822827	131.7	3.7	average of samples 1 - 4	140.4	5.0	93.8	PASS	
10/17/18	C - 111	6"	Lift 2	1126093	822712	136.9	5.0	average of samples 1 - 4	140.4	5.0	97.5	PASS	
10/17/18	C - 112	6"	Lift 2	1126030	822666	140.8	4.6	average of samples 1 - 4	140.4	5.0	100.3	PASS	
10/19/18	C - 113	12"	Lift 2	1126002	822078	135.9	7.4	average of samples 5 - 9	141.5	5.8	96.0	PASS	
10/19/18	C - 114	8"	Lift 2	1126043	822134	139.9	4.2	average of samples 5 - 9	141.5	5.8	98.9	PASS	
10/19/18	C - 115	12"	Lift 2	1125972	822162	133.9	3.7	average of samples 5 - 9	141.5	5.8	94.6	PASS	
10/19/18	C - 116	12"	Lift 2	1125889	822168	131.7	3.7	average of samples 5 - 9	141.5	5.8	93.1	PASS	
10/19/18	C - 117	12"	Lift 2	1125853	822240	135.6	5.7	average of samples 5 - 9	141.5	5.8	95.8	PASS	
10/19/18	C - 118	12"	Lift 2	1125901	822260	138.1	5.7	average of samples 5 - 9	141.5	5.8	97.6	PASS	
10/19/18	C - 119	10"	Lift 2	1125985	822245	139.9	5.9	average of samples 5 - 9	141.5	5.8	98.9	PASS	
10/19/18	C - 120	12"	Lift 2	1125968	822318	136.5	5.4	average of samples 5 - 9	141.5	5.8	96.5	PASS	
10/19/18	C - 121	12"	Lift 2	1125873	822318	130.5	4.7	average of samples 5 - 9	141.5	5.8	92.2	PASS	
10/19/18	C - 122	12"	Lift 2	1125848	822428	130.8	5.4	average of samples 5 - 9	141.5	5.8	92.4	PASS	
10/19/18	C - 123	12"	Lift 2	1125929	822427	129.0	3.4	average of samples 5 - 9	141.5	5.8	91.2	PASS	
10/19/18	C - 124	12"	Lift 2	1126035	822360	131.9	4.1	average of samples 5 - 9	141.5	5.8	93.2	PASS	
10/19/18	C - 125	12"	Lift 2	1126100	822360	131.3	4.1	average of samples 5 - 9	141.5	5.8	92.8	PASS	
10/19/18	C - 126	12"	Lift 1	1126163	822531	137.1	6.0	average of samples 5 - 9	141.5	5.8	96.9	PASS	
10/19/18	C - 127	12"	Lift 1	1126250	822547	138.8	5.4	average of samples 5 - 9	141.5	5.8	98.1	PASS	
10/19/18	C - 128	12"	Lift 1	1126333	822526	136.3	5.2	average of samples 5 - 9	141.5	5.8	96.3	PASS	
10/19/18	C - 129	12"	Lift 1	1126360	822425	139.5	4.9	average of samples 5 - 9	141.5	5.8	98.6	PASS	
10/19/18	C - 130	12"	Lift 1	1126292	822413	135.3	5.5	average of samples 5 - 9	141.5	5.8	95.6	PASS	
10/19/18	C - 131	12"	Lift 1	1126264	822344	137.1	5.4	average of samples 5 - 9	141.5	5.8	96.9	PASS	
10/19/18	C - 132	12"	Lift 1	1126334	822350	139.3	4.1	average of samples 5 - 9	141.5	5.8	98.4	PASS	
10/19/18	C - 133	12"	Lift 1	1126411	822357	137.5	4.6	average of samples 5 - 9	141.5	5.8	97.2	PASS	
10/22/18	C - 134	6"	Lift 2	1126333	822703	127.9	3.5	average of samples 5 - 9	141.5	5.8	90.4	PASS	
10/22/18	C - 135	8"	Lift 2	1126318	822773	134.5	2.5	average of samples 5 - 9	141.5	5.8	95.1	PASS	
10/22/18	C - 136	8"	Lift 2	1126272	822813	129.2	3.6	average of samples 5 - 9	141.5	5.8	91.3	PASS	
10/22/18	C - 137	12"	Lift 2	1126289	822716	127.5	4.0	average of samples 5 - 9	141.5	5.8	90.1	PASS	
10/22/18	C - 138	12"	Lift 2	1126191	822705	127.6	4.5	average of samples 5 - 9	141.5	5.8	90.2	PASS	
10/22/18	C - 139	12"	Lift 2	1126183	822794	128.6	4.1	average of samples 5 - 9	141.5	5.8	90.9	PASS	
3/29/19	C - 140	10"	Lift 1	1126450	821805	136.7	5.7	average of samples 5 - 9	141.5	5.8	96.6	PASS	

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**CELL 10/11 SOIL CAP CONSTRUCTION**  
**HIGH ACRES LANDFILL, FAIRPORT, NEW YORK**

DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	PROCTOR CURVE			PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST			CURVE NO.	MAX D.D. (pcf)	OPT. M.C. (%)			
3/29/19	C - 141	10	Lift 1	1126375	821805	140.0	5.7	average of samples 5 - 9	141.5	5.8	98.9	PASS	
3/29/19	C - 142	10	Lift 1	1126290	821805	139.0	5.8	average of samples 5 - 9	141.5	5.8	98.2	PASS	
3/29/19	C - 143	10	Lift 1	1126160	821810	133.9	5.5	average of samples 5 - 9	141.5	5.8	94.6	PASS	
3/29/19	C - 144	10	Lift 1	1126090	821810	132.3	4.2	average of samples 5 - 9	141.5	5.8	93.5	PASS	
3/29/19	C - 145	10	Lift 1	1126115	821760	141.0	5.1	average of samples 5 - 9	141.5	5.8	99.6	PASS	
3/29/19	C - 146	10	Lift 1	1126200	821740	133.0	4.8	average of samples 5 - 9	141.5	5.8	94.0	PASS	
3/29/19	C - 147	10	Lift 1	1126275	821735	135.9	6.0	average of samples 5 - 9	141.5	5.8	96.0	PASS	
3/29/19	C - 148	10	Lift 1	1126360	821740	137.2	5.6	average of samples 5 - 9	141.5	5.8	97.0	PASS	
3/29/19	C - 149	10	Lift 1	1126460	821735	129.3	6.7	average of samples 5 - 9	141.5	5.8	91.4	PASS	
4/4/19	C - 150	10	Lift 1	1126040	821860	139.0	6.0	average of samples 5 - 9	141.5	5.8	98.2	PASS	
4/4/19	C - 151	10	Lift 1	1126045	821955	141.3	4.6	average of samples 5 - 9	141.5	5.8	99.9	PASS	
4/4/19	C - 152	10	Lift 1	1126050	822050	141.7	4.9	average of samples 5 - 9	141.5	5.8	100.1	PASS	
4/4/19	C - 153	10	Lift 1	1126050	822150	141.9	4.9	average of samples 5 - 9	141.5	5.8	100.3	PASS	
4/4/19	C - 154	10	Lift 1	1126075	822270	144.3	4.4	average of samples 5 - 9	141.5	5.8	102.0	PASS	
4/4/19	C - 155	10	Lift 1	1126175	822240	142.2	4.7	average of samples 5 - 9	141.5	5.8	100.5	PASS	
4/4/19	C - 156	8	Lift 1	1126150	822150	137.8	5.8	average of samples 5 - 9	141.5	5.8	97.4	PASS	
4/4/19	C - 157	10	Lift 1	1126130	822040	141.1	4.9	average of samples 5 - 9	141.5	5.8	99.7	PASS	
4/4/19	C - 158	10	Lift 1	1126175	821950	136.1	6.3	average of samples 5 - 9	141.5	5.8	96.2	PASS	
4/4/19	C - 159	10	Lift 1	1126160	821860	140.3	5.0	average of samples 5 - 9	141.5	5.8	99.2	PASS	
4/4/19	C - 160	10	Lift 1	1125950	822030	134.3	4.8	average of samples 5 - 9	141.5	5.8	94.9	PASS	
4/4/19	C - 161	10	Lift 1	1125950	822150	140.9	5.0	average of samples 5 - 9	141.5	5.8	99.6	PASS	
4/4/19	C - 162	10	Lift 1	1125960	822240	139.4	5.6	average of samples 5 - 9	141.5	5.8	98.5	PASS	
4/4/19	C - 163	10	Lift 1	1125840	822260	138.6	6.3	average of samples 5 - 9	141.5	5.8	98.0	PASS	
4/4/19	C - 164	8	Lift 1	1125840	822160	131.3	5.2	average of samples 5 - 9	141.5	5.8	92.8	PASS	
4/4/19	C - 165	8	Lift 1	1125835	822040	140.0	3.8	average of samples 5 - 9	141.5	5.8	98.9	PASS	
4/4/19	C - 166	8	Lift 1	1126060	822330	137.7	5.1	average of samples 5 - 9	141.5	5.8	97.3	PASS	
4/24/19	C - 167	6	Lift 2	1126030	822125	132.4	4.0	average of samples 5 - 9	141.5	5.8	93.6	PASS	
4/24/19	C - 168	12	Lift 2	1126030	822220	141.3	4.3	average of samples 5 - 9	141.5	5.8	99.9	PASS	
4/24/19	C - 169	8	Lift 2	1126130	822220	136.4	5.2	average of samples 5 - 9	141.5	5.8	96.4	PASS	
4/25/19	C - 170	12	Lift 2	1126225	822250	137.0	4.4	average of samples 5 - 9	141.5	5.8	96.8	PASS	
4/25/19	C - 171	12	Lift 2	1126230	822325	140.2	5.2	average of samples 5 - 9	141.5	5.8	99.1	PASS	
4/25/19	C - 172	12	Lift 2	1126320	822335	139.1	4.2	average of samples 5 - 9	141.5	5.8	98.3	PASS	
4/25/19	C - 173	12	Lift 2	1126150	822320	137.3	4.6	average of samples 5 - 9	141.5	5.8	97.0	PASS	
4/25/19	C - 174	12	Lift 2	1126050	822325	138.4	5.9	average of samples 5 - 9	141.5	5.8	97.8	PASS	
4/25/19	C - 175	12	Lift 2	1126025	822430	134.6	5.2	average of samples 5 - 9	141.5	5.8	95.1	PASS	

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HIGH ACRES LANDFILL, FAIRPORT, NEW YORK**

DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	PROCTOR CURVE			PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST			CURVE NO.	MAX D.D. (pcf)	OPT. M.C. (%)			
4/25/19	C - 176	12	Lift 2	1126150	822435	137.0	4.5	average of samples 5 - 9	141.5	5.8	96.8	PASS	
4/25/19	C - 177	12	Lift 2	1126275	822430	140.2	4.1	average of samples 5 - 9	141.5	5.8	99.1	PASS	
4/25/19	C - 178	12	Lift 2	1126360	822420	138.1	4.9	average of samples 5 - 9	141.5	5.8	97.6	PASS	
5/6/19	C - 179	10	Lift 2	1126050	822620	138.6	4.4	average of samples 5 - 9	141.5	5.8	98.0	PASS	
5/6/19	C - 180	12	Lift 2	1126160	822625	132.6	5.8	average of samples 5 - 9	141.5	5.8	93.7	PASS	
5/6/19	C - 181	12	Lift 2	1126280	822620	130.7	6.7	average of samples 5 - 9	141.5	5.8	92.4	PASS	
5/6/19	C - 182	12	Lift 2	1126280	822550	134.3	4.8	average of samples 5 - 9	141.5	5.8	94.9	PASS	
5/6/19	C - 183	12	Lift 2	1126170	822550	139.4	6.6	average of samples 5 - 9	141.5	5.8	98.5	PASS	
5/9/19	C - 184	12	Lift 1	1126560	821740	141.0	4.6	average of samples 5 - 9	141.5	5.8	99.6	PASS	
5/9/19	C - 185	12	Lift 1	1126550	821830	141.6	4.1	average of samples 5 - 9	141.5	5.8	100.1	PASS	
5/9/19	C - 186	12	Lift 1	1126540	821925	140.6	4.6	average of samples 5 - 9	141.5	5.8	99.4	PASS	
5/9/19	C - 187	12	Lift 1	1126535	822050	138.5	4.3	average of samples 5 - 9	141.5	5.8	97.9	PASS	
5/9/19	C - 188	12	Lift 1	1126550	822115	135.6	4.4	average of samples 5 - 9	141.5	5.8	95.8	PASS	
5/9/19	C - 189	12	Lift 1	1126575	822225	134.2	4.7	average of samples 5 - 9	141.5	5.8	94.8	PASS	
5/9/19	C - 190	12	Lift 1	1126470	822240	138.2	3.9	average of samples 5 - 9	141.5	5.8	97.7	PASS	
5/9/19	C - 191	12	Lift 1	1126460	822135	138.7	4.6	average of samples 5 - 9	141.5	5.8	98.0	PASS	
5/9/19	C - 192	12	Lift 1	1126450	822050	140.3	4.1	average of samples 5 - 9	141.5	5.8	99.2	PASS	
5/9/19	C - 193	12	Lift 1	1126440	821955	139.3	4.2	average of samples 5 - 9	141.5	5.8	98.4	PASS	
5/9/19	C - 194	12	Lift 1	1126360	821930	137.7	3.9	average of samples 5 - 9	141.5	5.8	97.3	PASS	
5/9/19	C - 195	12	Lift 1	1126350	822040	139.7	3.9	average of samples 5 - 9	141.5	5.8	98.7	PASS	
5/9/19	C - 196	12	Lift 1	1126360	822150	137.3	4.4	average of samples 5 - 9	141.5	5.8	97.0	PASS	
5/9/19	C - 197	12	Lift 1	1126350	822250	139.3	4.0	average of samples 5 - 9	141.5	5.8	98.4	PASS	
5/9/19	C - 198	12	Lift 1	1126230	822150	141.4	3.8	average of samples 5 - 9	141.5	5.8	99.9	PASS	
5/9/19	C - 199	12	Lift 1	1126250	822040	142.2	4.3	average of samples 5 - 9	141.5	5.8	100.5	PASS	
5/9/19	C - 200	12	Lift 1	1126250	821960	136.2	4.3	average of samples 5 - 9	141.5	5.8	96.3	PASS	
5/9/19	C - 201	12	Lift 1	1126625	822050	137.4	4.2	average of samples 5 - 9	141.5	5.8	97.1	PASS	
5/9/19	C - 202	12	Lift 1	1126640	822150	137.6	4.5	average of samples 5 - 9	141.5	5.8	97.2	PASS	
5/9/19	C - 203	12	Lift 1	1126660	822250	140.0	4.2	average of samples 5 - 9	141.5	5.8	98.9	PASS	
5/9/19	C - 204	12	Lift 2	1126350	822630	138.6	4.6	average of samples 5 - 9	141.5	5.8	98.0	PASS	
5/9/19	C - 205	12	Lift 2	1126440	822640	139.1	4.8	average of samples 5 - 9	141.5	5.8	98.3	PASS	
5/9/19	C - 206	12	Lift 2	1126550	822650	139.5	4.2	average of samples 5 - 9	141.5	5.8	98.6	PASS	
5/9/19	C - 207	12	Lift 2	1126660	822650	140.4	3.8	average of samples 5 - 9	141.5	5.8	99.2	PASS	
5/9/19	C - 208	12	Lift 2	1126620	822540	135.3	5.6	average of samples 5 - 9	141.5	5.8	95.6	PASS	
5/9/19	C - 209	12	Lift 2	1126540	822550	137.0	5.7	average of samples 5 - 9	141.5	5.8	96.8	PASS	
5/9/19	C - 210	12	Lift 2	1126440	822550	136.8	4.9	average of samples 5 - 9	141.5	5.8	96.7	PASS	

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CELL 10/11 SOIL CAP CONSTRUCTION  
HIGH ACRES LANDFILL, FAIRPORT, NEW YORK**

DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	PROCTOR CURVE			PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST			CURVE NO.	MAX D.D. (pcf)	OPT. M.C. (%)			
5/9/19	C - 211	12	Lift 2	1126470	822450	138.0	4.8	average of samples 5 - 9	141.5	5.8	97.5	PASS	
5/9/19	C - 212	8	Lift 2	1126550	822450	136.6	4.4	average of samples 5 - 9	141.5	5.8	96.5	PASS	
5/9/19	C - 213	12	Lift 2	1126550	822350	129.8	4.5	average of samples 5 - 9	141.5	5.8	91.7	PASS	
5/9/19	C - 214	12	Lift 2	1126535	822270	129.0	4.5	average of samples 5 - 9	141.5	5.8	91.2	PASS	
5/9/19	C - 215	12	Lift 2	1126450	822270	129.0	3.6	average of samples 5 - 9	141.5	5.8	91.2	PASS	
5/9/19	C - 216	12	Lift 2	1126325	822260	130.9	4.1	average of samples 5 - 9	141.5	5.8	92.5	PASS	
5/9/19	C - 217	12	Lift 2	1126350	822150	131.4	4.4	average of samples 5 - 9	141.5	5.8	92.9	PASS	
5/9/19	C - 218	12	Lift 2	1126450	822150	133.3	3.6	average of samples 5 - 9	141.5	5.8	94.2	PASS	
5/9/19	C - 219	12	Lift 2	1126550	822140	132.1	4.0	average of samples 5 - 9	141.5	5.8	93.4	PASS	
5/21/19	C - 220	12	Lift 2	1126550	822050	134.9	4.6	average of samples 5 - 9	141.5	5.8	95.3	PASS	
5/21/19	C - 221	12	Lift 2	1126445	822055	135.9	5.3	average of samples 5 - 9	141.5	5.8	96.0	PASS	
5/21/19	C - 222	12	Lift 2	1126340	822050	136.2	4.0	average of samples 5 - 9	141.5	5.8	96.3	PASS	
5/21/19	C - 223	12	Lift 2	1126740	822240	133.7	4.0	average of samples 5 - 9	141.5	5.8	94.5	PASS	
5/21/19	C - 224	12	Lift 2	1126730	822130	131.5	6.5	average of samples 5 - 9	141.5	5.8	92.9	PASS	
5/21/19	C - 225	12	Lift 2	1126720	822130	130.8	6.6	average of samples 5 - 9	141.5	5.8	92.4	PASS	
5/21/19	C - 226	12	Lift 2	1126530	821950	135.6	5.8	average of samples 5 - 9	141.5	5.8	95.8	PASS	
5/21/19	C - 227	12	Lift 2	1126460	821940	133.9	6.4	average of samples 5 - 9	141.5	5.8	94.6	PASS	
5/21/19	C - 228	12	Lift 2	1126050	822045	140.1	4.5	average of samples 5 - 9	141.5	5.8	99.0	PASS	
5/21/19	C - 229	12	Lift 2	1126040	821940	144.0	3.9	average of samples 5 - 9	141.5	5.8	101.8	PASS	
5/21/19	C - 230	12	Lift 2	1126050	821840	138.3	4.2	average of samples 5 - 9	141.5	5.8	97.7	PASS	
5/21/19	C - 231	12	Lift 2	1126140	821780	142.4	3.6	average of samples 5 - 9	141.5	5.8	100.6	PASS	
5/21/19	C - 232	12	Lift 2	1126180	821850	137.7	4.0	average of samples 5 - 9	141.5	5.8	97.3	PASS	
5/21/19	C - 233	12	Lift 2	1126130	821940	138.2	3.6	average of samples 5 - 9	141.5	5.8	97.7	PASS	
5/21/19	C - 234	12	Lift 2	1126175	822045	137.5	4.8	average of samples 5 - 9	141.5	5.8	97.2	PASS	
5/21/19	C - 235	12	Lift 2	1126115	822140	137.6	5.0	average of samples 5 - 9	141.5	5.8	97.2	PASS	
5/21/19	C - 236	12	Lift 2	1126250	822150	138.7	5.2	average of samples 5 - 9	141.5	5.8	98.0	PASS	
5/21/19	C - 237	12	Lift 2	1126280	822050	138.7	4.7	average of samples 5 - 9	141.5	5.8	98.0	PASS	
5/22/19	C - 238	12	Lift 2	1126275	821980	141.2	4.6	average of samples 5 - 9	141.5	5.8	99.8	PASS	
5/22/19	C - 239	12	Lift 2	1126275	821875	141.0	4.7	average of samples 5 - 9	141.5	5.8	99.6	PASS	
5/22/19	C - 240	12	Lift 2	1126275	821770	132.4	5.7	average of samples 5 - 9	141.5	5.8	93.6	PASS	
5/22/19	C - 241	12	Lift 2	1126360	821760	136.2	5.3	average of samples 5 - 9	141.5	5.8	96.3	PASS	
5/22/19	C - 242	12	Lift 2	1126360	821860	133.7	4.8	average of samples 5 - 9	141.5	5.8	94.5	PASS	
5/22/19	C - 243	12	Lift 2	1126360	821960	134.1	4.9	average of samples 5 - 9	141.5	5.8	94.8	PASS	
5/22/19	C - 244	12	Lift 2	1126530	821810	136.1	4.7	average of samples 5 - 9	141.5	5.8	96.2	PASS	
5/22/19	C - 245	12	Lift 2	1126540	821710	138.2	6.1	average of samples 5 - 9	141.5	5.8	97.7	PASS	



**ATTACHMENT 4**  
**SUMMARY FIELD MOISTURE/DENSITY TEST RESULTS FOR CAP FILL**  
**WASTE MANAGEMENT OF NEW YORK, L.L.C.**  
**CELL 10/11 SOIL CAP CONSTRUCTION**  
**HIGH ACRES LANDFILL, FAIRPORT, NEW YORK**

DATE	TEST NO.	DEPTH TESTED (in.)	EIEV.	LOCATION		DRY DENSITY (pcf)	MOISTURE CONTENT (%)	CURVE NO.	MAX D.D. (pcf)	OPT. M.C. (%)	PERCENT MODIFIED PROCTOR	PASS/ FAIL *	RETEST NO.
				NORTH	EAST								
5/22/19	C - 246	12	Lift 2	1126410	821740	132.8	5.2	average of samples 5 - 9	141.5	5.8	93.9	PASS	
5/22/19	C - 247	12	Lift 2	1126420	821870	138.2	4.7	average of samples 5 - 9	141.5	5.8	97.7	PASS	
5/23/19	C - 248	12	Lift 2	1125960	821860	131.8	4.4	average of samples 5 - 9	141.5	5.8	93.1	PASS	
5/23/19	C - 249	12	Lift 2	1125950	821950	127.6	4.9	average of samples 5 - 9	141.5	5.8	90.2	PASS	
5/23/19	C - 250	12	Lift 2	1125940	822040	130.7	5.3	average of samples 5 - 9	141.5	5.8	92.4	PASS	
5/23/19	C - 251	12	Lift 2	1125950	822125	132.9	5.1	average of samples 5 - 9	141.5	5.8	93.9	PASS	
5/23/19	C - 252	12	Lift 2	1125870	822025	131.4	4.7	average of samples 5 - 9	141.5	5.8	92.9	PASS	
5/23/19	C - 253	12	Lift 2	1125860	822110	129.8	4.3	average of samples 5 - 9	141.5	5.8	91.7	PASS	
5/23/19	C - 254	8	Lift 2	1125850	822210	128.2	4.4	average of samples 5 - 9	141.5	5.8	90.6	PASS	

**NOTES:**

\* Passing results indicated by moisture content within +/- 3 percent of optimum moisture content and dry density above 90 percent maximum dry density per modified Proctor test.