

Scanned By	Date	DOC ID	Permit
Backus	08/04/2014	21326	4116-CDLF-2012



ADDRESS: 14 N. Boylan Avenue, Raleigh NC 27603
TEL: 919.828.0577
WEB: www.smithgardnerinc.com

June 18, 2014

Ms. Patricia Backus, P.E.
Environmental Engineer
NCDENR Division of Waste Management
217 West Jones Street
Raleigh, North Carolina

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
Date 08/04/2014 By Patricia M. Backus
DIN 21326
Attachment 1 Part III Document 27
Permit 4116-CDLF-2012 Permit DIN 21408

**RE: Construction Quality Assurance Report
WI High Point C&D Landfill (Phase 2B-1 Construction)
Solid Waste Permit No. 41-16
Jamestown, North Carolina**

Dear Pat:

On behalf of WI High Point C&D Landfill, Smith Gardner, Inc. (S+G) would like to submit for your review the (2) enclosed Construction Quality Assurance (CQA) Reports (one(1) hard copy and one (1) electronic) for the Phase 2B-1 Construction at the WI High Point C&D Landfill. Furthermore, the financial assurance has been updated to include the expansion of the cell and is attached.

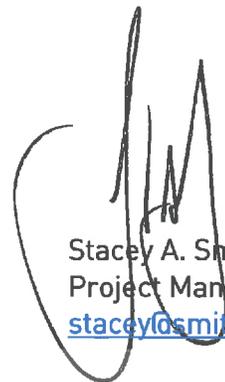
Should you have any questions or require clarification, please contact us at (919) 828-0577 or by email below.

Sincerely,
SMITH GARDNER, INC.



FOR CARTER

Carter T. Shore, E.I.
Staff Engineer, ext. 142
carter@smithgardnerinc.com
cts/sas



Stacey A. Smith, P.E.
Project Manager, ext. 127
stacey@smithgardnerinc.com

Att.

Cc: Roger Marcum, WI High Point C&D Landfill
David Pepper, Waste Industries USA, Inc.
John Barnard, Waste Industries USA, Inc.
Hugh Jernigan, NCDENR
File

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**WI High Point Landfill, LLC (NC Solid Waste Permit No. 41-16)
Engineer's Closure Construction Cost Estimate**

Item No.	Item Description	Unit	Contractor			Comments
			Quantity	Unit Price	Total Price	
Facility Area (Horizontal Plan) ---->		AC	4			
1.0	Pre-Construction			Subtotal	\$2,000.00	
1.1	Construction Documents & Bidding	AC	4	\$500.00	\$2,000.00	
2.0	Remedial Response Activities				\$25,450.00	
2.1	Surveys and Layout	AC	4	\$250.00	\$1,000.00	S+G Estimate
2.2	Mobilization, Demobilization, and Project Closeout	AC	4	\$500.00	\$2,000.00	S+G Estimate
2.3	Wash Down & Cleanup of the Recovery Area	AC	2	\$1,500.00	\$3,000.00	Assume single work crew per day.
2.4	Fencing & Concrete Barrier Protection	CY	1	\$5,000.00	\$5,000.00	Assume close process area and place concrete barriers across access road.
2.5	Excess Recycling & Processing Material	CY	150	\$43.00	\$6,450.00	Assume cost of loading and transport for maximum allowed storage volume
2.6	Erosion & Sediment Control (grading, silt fence, maintenance, etc.)	AC	4	\$500.00	\$2,000.00	S+G Estimate
2.7	Revegetation	AC	4	\$1,500.00	\$6,000.00	S+G Estimate
3.0	Quality Assurance, Certification, & Deed Notation				\$3,000.00	
3.1	Engineering and Reporting	AC	1	\$2,500.00	\$2,500.00	S+G Estimate
3.2	Surveying and Deed Notation	AC	1	\$500.00	\$500.00	S+G Estimate
Remedial Response Estimate ---->					\$30,450	(2014\$)
10% Contingency ---->					\$3,045	
Total Estimate ---->					\$33,495	(2014\$) (See Notes 1 & 2)

Notes:

- All costs are presented in current dollars and should be increased at an inflation rate prescribed by the NCDENR Division of Waste Management per <http://portal.ncdenr.org/web/wm/sw/financialassurance> if additional review is not performed annually.
- This ESTIMATE has been prepared for financial assurance purposes only and shall not be considered a replacement for an actual bid from a licensed contractor and is considered acceptable within a +/- 10% of the Total Estimate value.

References:

 Denotes values calculated in spreadsheet.

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WI High Point Landfill, LLC (NC Solid Waste Permit No. 41-16)
Engineer's Closure Construction Cost Estimate

Item No.	Item Description	Unit	Contractor			Comments
			Quantity	Unit Price	Total Price	
Closure Area (Horizontal Plan) ---->		AC	20			
1.0	Pre-Construction			Subtotal	\$25,000.00	
1.1	Construction Documents & Bidding	AC	20	\$10k + \$500/AC	\$25,000.00	S+G Estimate
2.0	Construction				\$897,600.00	Reference 1
2.1	Surveys and Layout	AC	20	\$250.00	\$5,000.00	S+G Historical Estimate
2.2	Mobilization	AC	20	\$2,000.00	\$40,000.00	-4% of Construction Cost
2.3	Site Preparation (repairs to intermediate cover layer)	AC	20	\$1,000.00	\$20,000.00	Assumed estimate for repair of erosion rills.
2.4	18" On-site Low Permeability Soil	CY	48,400	\$8.00	\$387,200.00	S+G Historical Estimate
2.5	18" Vegetative Support Layer	CY	48,400	\$3.50	\$169,400.00	S+G Historical Estimate
2.6	Landfill Gas Venting System	AC	20	\$3,500.00	\$70,000.00	S+G Historical Estimate
2.7	Cap Drainage Structures (berms, piping, etc.)	AC	20	\$7,500.00	\$150,000.00	S+G Historical Estimate
2.8	Erosion & Sediment Control (grading, silt fence, maintenance, etc.)	AC	20	\$800.00	\$16,000.00	S+G Historical Estimate
2.9	Revegetation	AC	20	\$2,000.00	\$40,000.00	S+G Historical Estimate
3.0	Quality Assurance, Certification, & Deed Notation				\$122,000.00	
3.1	Field Monitoring	AC	20	\$3,000.00	\$60,000.00	S+G Estimate
3.2	Laboratory Testing	AC	20	\$2,500.00	\$50,000.00	S+G Estimate
3.3	Engineering Certification	AC	20	\$5k + \$250/AC	\$10,000.00	S+G Estimate
3.4	Surveying and Deed Notation	AC	20	\$100.00	\$2,000.00	S+G Historical Estimate
4.0	Miscellaneous Costs to Close				\$25,000.00	
4.1	Erosion and Stormwater Control (outside landfill footprint)	AC	20	\$1,000.00	\$20,000.00	S+G Historical Estimate
4.2	Engineering and Reporting	AC	20	\$250.00	\$5,000.00	S+G Historical Estimate
5.0	Total Closure Costs					
Construction Estimate ---->					\$1,069,600	(2014\$)
Cost per Acre ---->					\$53,480	
Total Estimate ---->					\$1,069,600	(2014\$) (See Notes 1 & 2)

Notes:

- All costs are presented in current dollars and should be increased at an inflation rate prescribed by the NCDENR Division of Waste Management per <http://portal.ncdenr.org/web/wm/sw/financialassurance> if additional review is not performed annually.
- This ESTIMATE has been prepared for financial assurance purposes only and shall not be considered a replacement for an actual bid from a licensed contractor and is considered acceptable within a +/- 10% of the Total Estimate value.

References:

- Approved WCA of High Point CGD Landfill - Permit to Construct Application by Golder Associates NC, Inc. dated March 2007

Denotes values calculated in spreadsheet.

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**WI High Point Landfill, LLC (NC Solid Waste Permit No. 41-16)
Engineer's Post Closure Cost Estimate**

Item	Quantity	Unit	Comments
Groundwater Monitoring			
Monitoring wells	10	wells	Reference 1
Surface water point	3	points	Reference 1
Sampling frequency	2	events	Reference 1
Field sampling, collection, and shipping	\$1,500	per event	S+G estimate
Laboratory Analysis	\$200	per well	S+G estimate
Data review, statistics, and reporting	\$2,000	per well	S+G estimate
Maintenance and repair	\$100	per well	S+G estimate
Subtotal Cost	\$13,200	per year	
Landfill Gas Management			
Control System Vents	0	vents	Pro-rated @ one (1) per two (2) acres
Sub-Surface Perimeter Monitoring Probes	5	probes	Per Ref. 2
Control system monitoring, maintenance and repair	\$200	per vent per year	S+G estimate
Semi-Annual Perimeter Monitoring	\$250	per probe per year	S+G estimate
Subtotal Cost	\$1,250	per year	Averaged over post-closure period
Final Cover Management			
Area of maintenance	20	acres	Extends to area immediately around landfill.
Mowing	\$100	per acre	S+G estimate
Erosion and sediment control maintenance	\$200	per acre	S+G estimate
Todressing (seed & fertilizer)	\$150	per acre	S+G estimate
Vector and rodent control	\$10	per acre	S+G estimate
Maintenance Mobilization	\$1,000	per year	S+G estimate
Subtotal Cost	\$10,200	per year	
Administration, Inspections, and Reporting			
Administration and record keeping	\$1,000	per year	S+G estimate
Inspection	\$1,000	per year	S+G estimate
Miscellaneous engineering	\$1,500	per year	S+G estimate
Subtotal Cost	\$3,500	per year	
Subtotal Post-Closure Costs			
Estimated Average Annual Costs	\$28,150	per year (2014\$)	
Number of Years for Post-Closure	30	years	
Cost per Acre	\$1,407.50	per year	
Subtotal Post Closure Costs	\$844,500	(2014\$) (See Notes 1 & 2)	
Potential Assessment and Corrective (Remedial) Action			
Minimum amount required by NCDENR Division of Waste Management	\$2,000,000	lump sum	Regulatory requirement (Session Law 2011-262)
Subtotal Remedial Cost	\$2,000,000	lump sum	
Total Post Closure and Remedial Costs	\$2,844,500	(2014\$) (See Notes 1 & 2)	
Total Closure, Post Closure, and Remedial Costs	\$3,914,100	(2014\$) (See Notes 1 & 2)	

Notes:

- All costs are presented in current dollars and should be increased at an inflation rate prescribed by the NCDENR Division of Waste Management per <http://portal.ncdenr.org/web/wm/sw/financialassurance> if additional review is not performed annually.
- This ESTIMATE has been prepared for financial assurance purposes only and shall not be considered a replacement for an actual bid from a licensed contractor and is considered acceptable within a +/- 10% of the Total Estimate value.

References:

- WCA of High Point C&D Landfill Design Hydrogeologic Report by Golder Associates NC, Inc. dated March 2007.
- WCA of High Point C&D Landfill Operations Plan by Golder Associates NC, Inc. dated November 2008.

Denotes values calculated in spreadsheet.

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Construction Quality Assurance Report

Phase 2B-1 Construction WI High Point Landfill, LLC High Point, North Carolina

Prepared for:



WI High Point Landfill, LLC
High Point, North Carolina

June 2014

Prepared by:

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577



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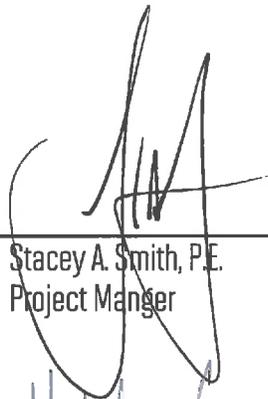
Construction Quality Assurance Report

**Phase 2B-1 Construction
WI High Point Landfill, LLC
High Point, North Carolina**

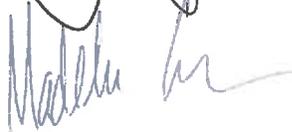
Prepared For:

**WI High Point Landfill, LLC
High Point, North Carolina**

S+G Project No. WI HIGH POINT 14-2



Stacey A. Smith, P.E.
Project Manager



Madeline M. German, P.G.
Project Geologist

June 2014

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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**Phase 2B-1 Construction
WI High Point Landfill, LLC
High Point, North Carolina**

Construction Quality Assurance Report

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FIGURES

Figure 1 Cell Certification Limits

TABLES

Table 1 Project Milestones

APPENDICES

Appendix A Reference Documents (Permits)
 Appendix B Photographic Log
 Appendix C Subgrade Inspection, Piezometer Abandonment, and Well Installation Information
 Appendix D Record Drawings

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1.0 OVERVIEW

This Construction Quality Assurance (CQA) Report has been prepared to document the CQA activities performed during the construction of Phase 2B-1 of the WI High Point Construction & Demolition (C&D) Landfill. The landfill facility is located at 5830 Riverdale Road in Jamestown, North Carolina and is owned and operated by the WI High Point Landfill, LLC under State Solid Waste Permit No. 41-16-CDLF. A Permit to Construct for Phase 2 was issued by the North Carolina Division of Waste Management (NCDWM) on May 5, 2011.

2.0 PROJECT DESCRIPTION

2.1 General

Phase 2B-1 is a 2.63 lateral expansion of a construction and demolition landfill unit. Phase 2B-1 design also includes associated perimeter berms and erosion and sedimentation control measures. The Phase 2 PTC shows Phase 2B being a total of 4.7 acres. Phase 2B-1 is a portion of that with a capacity of 443,160 CY.

Table 1 – Project Milestones

DATE	TASK
March 14, 2014	Piezometer Abandonment
April 2, 2014	Pre-Construction Meeting (on-site)
April 18, 2014	Clearing & Grubbing/Erosion Control
May 9, 2014	Erosion & Sediment Control Structures
May 15, 2014	Earthwork (Excavation & Embankment)
June 12, 2014	Final Completion

2.2 Reference Documents

Phase 2B-1 was constructed in accordance with the following documents:

WCA of High Point C&D Landfill – Phase 2 Expansion PTC Application:
prepared by Golder Associates NC, Inc. dated March 2007.

Permit To Construct – WI High Point C&D Landfill – Phase 2:
(Permit to Construct issued by NCDWM on January 16, 2014 (copy provided in Appendix A).

Erosion and Sedimentation Control Plan for WI High Point C&D Landfill
prepared by Golder Associates NC, Inc. dated August 2009.

2.3 Project Participants

The following parties were involved in the construction and CQA of Phase 2B-1:

2.3.1 Owner

WI High Point Landfill, LLC
5830 Riverdale Road
Jamestown, NC 27282
Phone: (336) 886-3560

Contacts: Roger Marcum, Site Manager
roger.marcum@wasteindustries.com
John Barnard, P.E.
john.barnard@wasteindustries.com

2.3.2 Engineer/CQA Engineer

Smith Gardner, Inc. (S+G)
14 N. Boylan Ave.
Raleigh, NC 27603
Phone: (919) 828-0577

Contacts: Stacey Smith, P.E., Project Manager
stacey@smithgardnerinc.com
Carter Shore, E.I., Staff Engineer
carter@smithgardnerinc.com

2.3.3 CQA Testing - Earthwork, Geosynthetics, & Construction Monitoring

Geotechnics (Soil Testing)
2200 Westinghouse Blvd., Suite 103
Raleigh, NC 27604
Phone: (919) 876-0405

Contacts: Mike Smith, Regional Manager
msmith@geotechnics.com

2.3.4 Contractor

Shamrock Environmental Corporation
6106 Corporate Park Drive
Brown Summit, NC 27214
Phone: (336) 375-1989

Contacts: Henry Havener, Project Manager
hhavenr@shamrockenviro.com
Tony Upchurch, Site Superintendent
tupchurch@shamrockenviro.com

2.3.5 Surveyor

Surveying Solutions
295 Kingfisher Way
Louisbur, NC 27549
Phone: (919) 340-2250

Contacts: Dwayne Kroeze, P.L.S.
dk@surveypc.com

3.0 **SUMMARY OF CONSTRUCTION ACTIVITIES**

Major elements of the project are discussed below. Photos documenting the construction of Phase 2B-1 can be found in **Appendix C**. Prior to Shamrock beginning work, a project Pre-Construction Meeting was held on April 2, 2014.

3.1 **Piezometer Abandonment**

Five (5) piezometers, P-11, P-26, P-26D, P-27 and P-28, required abandonment prior to Phase 2B-1 construction. All piezometers were located within the Phase 2B-1 footprint. There were no other wells or piezometers within the footprint area. All piezometers were abandoned in order to prevent the well from becoming a possible conduit from the surface to the aquifer. Grout was tremie-piped to fill each well from the bottom to the top after the casings were removed in accordance with NCDENR regulations and guidelines. The abandonment took place March 14, 2014 and was performed by Geologic Explorations with oversight from S+G. Documentation is provided in **Appendix C**.

3.2 **Site Preparation**

Construction of Phase 2B-1 began in April 2014 with the surveying/staking of the limits of construction and the initiation of clearing and grubbing by Ace Clearing & Construction.

3.3 Erosion and Sedimentation Control Measures

The construction of erosion and sedimentation control measures took place in conjunction with project activities and under the site permits issued by the High Point Engineering Services Department.

3.4 Excavation and Embankment

Once portions of the site were cleared and grubbed, excavation and stockpiling activities were performed. Excavated materials including stripped topsoil, unsuitable soils, and structural fill were identified and separated. Topsoil and unsuitable soils were taken to the stockpile area located to the south of Phase 2B-1 for future use as daily/intermediate cover by the landfill.

A temporary road with accompanying embankment was built along the eastern edge of the cell and checked using visual verification of soils and included limited compaction testing due to the fact that it is both temporary and interior to the site.

3.5 Subgrade

Following completion of the Phase 2B-1 subgrade and in accordance with the permit, Ms. Madeline German, P.G. of S+G visited and examined the site to identify any subgrade conditions that *may adversely affect the design, construction, or operation* of the unit. As documented in Ms. German's report (**Appendix C**) subgrade material was materially consistent with the soil types found during the site investigation. Partially weathered rock was encountered and mostly removed; however, there was some left resulting in high spots in the subgrade. Since it is classified as PWR and not bedrock, additional adjustments to the subgrade are not necessary. In accordance with statute 15A NCAC 13B .0540 2(b) the two foot separation required was visually classified as silty sand (SM) satisfying this requirement.

4.0 CQA PROGRAM

4.1 Scope of Services

In satisfying the requirements of the Project CQA Manual for Phase 2B-1, the following activities were performed:

- Observation and documentation of construction of prepared subgrade.
- Review of submittals from the Contractor for conformance with project specification and CQA requirements.
- Review/preparation of record drawings.
- Preparation of the final CQA report.

5.0 MODIFICATIONS

During construction, it is typically necessary to make modifications to the design and construction documents to accommodate field conditions and/or improve constructability based on practical considerations. No modifications were made other than the subgrade conditions described above.

6.0 RECORD DRAWINGS

After the completion of construction, an as-built survey was conducted by Surveying Solutions, Inc. and compared with permitted contours. All final grading, within the limits of certification, were within tolerances (+/- 0.15 feet) except for those areas described above. The record (as-built) drawing depicting the construction of Phase 2B-1 can be found in **Appendix D**:

7.0 PROJECT CERTIFICATION

7.1 Engineer's Certification

Based on the observations and results of the CQA program documented herein, it is our professional opinion that the construction of Phase 2B-1 of the WI High Point C&D Landfill was completed in accordance with the following:

- i. The conditions of the Permit to Construct Phase 2;
- ii. The requirements of 15A NCAC 13B .0540
- ii. Acceptable engineering practices.

7.2 Geologist's Certification

Based upon inspection of the completed subgrade of Phase 2B-1 of the WI High Point C&D Landfill, I certify that the subgrade material was materially consistent with the soil types found during the site investigation. The areas of partially weathered rock that were encountered are classified as such and not bedrock and in compliance with NCDENR requirements, four (4) feet of separation from bedrock was maintained.

SMITH GARDNER, INC.


Stacey A. Smith, P.E.
Project Manager



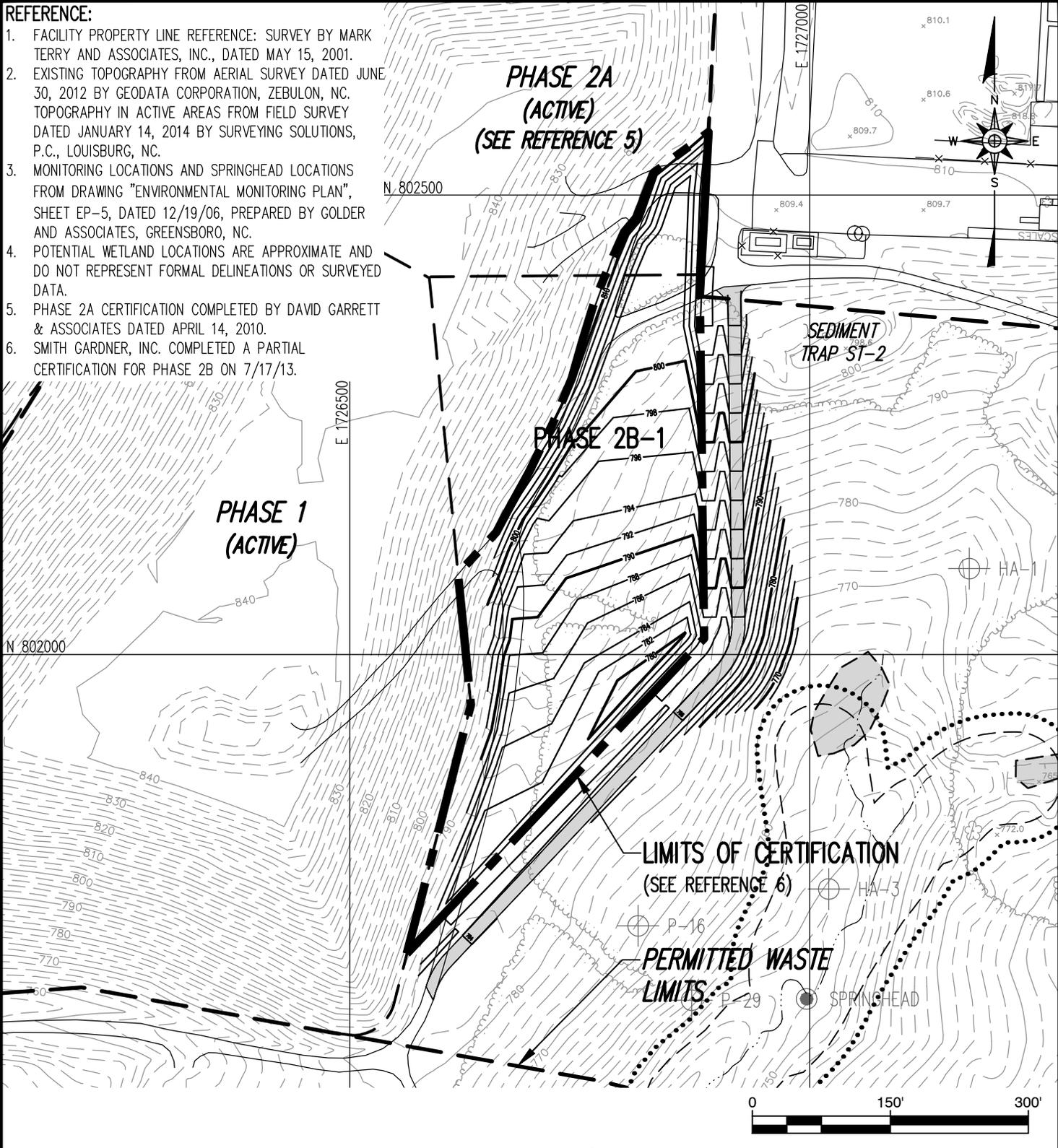

Madeline M. German, P.G.
Project Geologist



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REFERENCE:

1. FACILITY PROPERTY LINE REFERENCE: SURVEY BY MARK TERRY AND ASSOCIATES, INC., DATED MAY 15, 2001.
2. EXISTING TOPOGRAPHY FROM AERIAL SURVEY DATED JUNE 30, 2012 BY GEODATA CORPORATION, ZEBULON, NC. TOPOGRAPHY IN ACTIVE AREAS FROM FIELD SURVEY DATED JANUARY 14, 2014 BY SURVEYING SOLUTIONS, P.C., LOUISBURG, NC.
3. MONITORING LOCATIONS AND SPRINGHEAD LOCATIONS FROM DRAWING "ENVIRONMENTAL MONITORING PLAN", SHEET EP-5, DATED 12/19/06, PREPARED BY GOLDER AND ASSOCIATES, GREENSBORO, NC.
4. POTENTIAL WETLAND LOCATIONS ARE APPROXIMATE AND DO NOT REPRESENT FORMAL DELINEATIONS OR SURVEYED DATA.
5. PHASE 2A CERTIFICATION COMPLETED BY DAVID GARRETT & ASSOCIATES DATED APRIL 14, 2010.
6. SMITH GARDNER, INC. COMPLETED A PARTIAL CERTIFICATION FOR PHASE 2B ON 7/17/13.



PREPARED FOR:				PREPARED BY:		
WI HIGH POINT LANDFILL, LLC HIGH POINT C&D LANDFILL PHASE 2B-1 LIMITS OF CERTIFICATION				NC LIC. NO. C-0828 [ENGINEERING]		
				SMITH+GARDNER 14 N. Boylan Avenue, Raleigh NC 27603 919.828.0577		
DRAWN:	APPROVED:	SCALE:	DATE:	PROJECT NO.:	FIGURE NO.:	FILE NAME:
C.T.J.	C.T.S.	AS SHOWN	Jun 2014	WIHIGHPOINT 14-2	1	WI-A0952

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Appendix A

Reference Documents (Permits)

**Construction Quality Assurance Report
WI High Point Landfill, LLC – Phase 2B-1 Construction
High Point, North Carolina**

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Facility Permit No: 4116
High Point C&D Debris Landfill &
C&D Waste Reclamation Pad
Issuance Date: January 16, 2014
Doc ID: 20297
Page 1 of 19

North Carolina Department of Environment and Natural Resources
Division of Waste Management

Pat McCrory
Governor

Dexter R. Matthews
Director

John E. Skvarla, III
Secretary

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

SOLID WASTE MANAGEMENT FACILITY
Permit No. 4116

WI High Point Landfill, LLC
(a wholly-owned subsidiary of Waste Industries USA, Inc.)
is hereby issued a

PERMIT TO CONSTRUCT

4116-CDLF-2012 HIGH POINT C&D DEBRIS LANDFILL PHASE 2

PERMIT TO OPERATE

4116-CDLF-2012 HIGH POINT C&D DEBRIS LANDFILL PHASE 1 (CELLS 1-5), PHASE 2A
4116-MWP-2012 HIGH POINT C&D WASTE RECLAMATION

PERMIT FOR CLOSURE

NOT APPLICABLE

located at 5822 *Riverdale Drive* northeast of the City of High Point in Guilford County, North Carolina. This permit is issued in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The legal description of the site is identified on the deeds recorded for this property listed in Attachment 1, Part I of this permit.

Edward F. Mussler, III, P.E.,
Permitting Branch Supervisor
Solid Waste Section

ATTACHMENT 1
GENERAL PERMIT CONDITIONS/INFORMATION

Permit to Operate Data Table

Permit	Status	Issuance	Review	Expiration
4116-CDLF-2012	Active	January 16, 2014	January 16, 2019	January 16, 2024
4116-MWP-2012	Active	January 16, 2014	N/A	January 16, 2019

PART I: GENERAL FACILITY

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0201(d), a solid waste management facility permit shall have two parts: a Permit to Construct and a Permit to Operate. The Permit to Construct must be implemented in accordance with Attachment 2 of this permit. The Permit to Operate must be implemented in accordance with Attachment 3 of this permit.
2. The persons to whom this permit is issued (“permittee”) are the owners and operators of the solid waste management facility.
3. The Permit for this facility, dated September 4, 2012, was recorded by the Guilford County Register of Deeds on September 13, 2012 in Book R 7391 on Pages 117 through 133 (Document ID No. 17121).
4. When this property is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as a sanitary landfill and a reference by book and page to the recordation of the permit.
5. By receiving waste at this facility the permittee shall be considered to have accepted the terms and conditions of this permit.
6. Operation of this solid waste management facility must be in accordance with the Solid Waste Management Rules, 15A NCAC 13B, Article 9 of the Chapter 130A of the North Carolina General Statutes (NCGS 130A-290, et seq.), the conditions contained in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition. Failure to comply may result in compliance action or permit revocation.
7. This permit is issued based on the documents submitted in support of the application for permitting the facility including those identified in the “List of Documents for the

Approved Plan” which constitute the approved plan for the facility. Where discrepancies exist, the most recent submittals and the Conditions of Permit shall govern.

8. This permit may be transferred only with the approval of the Section, through the issuance of a new or substantially amended permit in accordance with applicable statutes and rules. In accordance with NCGS 130A-295.2(g) the permittee shall notify the Section thirty (30) days prior to any significant change in the identity or business structure of either the owner or the operator, including but not limited to a proposed transfer of ownership of the facility or a change in the parent company of the owner or operator of the facility.
9. The permittee is responsible for obtaining all permits and approvals necessary for the development of this project including approval from appropriate agencies for a General or Individual NPDES Stormwater Discharge Permit. Issuance of this permit does not remove the permittee’s responsibilities for compliance with any other local, state or federal rule, regulation or statute.

Properties Approved for the Solid Waste Facility

Guilford County, NC – Register of Deeds				
Book	Page	Grantor	Grantee	Acres
R 7335	400	WCA of High Point, LLC	WI High Point, LLC	149.83
Plat 150	96-97	New Lot “A” in Recombination Plat Map		
Total Acreage				149.83

Property Combination (2003)		
Book	Page	Document
5830	2290	Combination Instrument
Plat 150	96-97	Recombination Plat Map
Properties Included in New Lot “A”		
5350	1568	Tax No. 18-523-1-1
5018	273	Tax No. 18-523-1-2
5248	914	Tax No. 18-523-1-3
5759	1144	Tax No. 18-523-1-4
5248	911	Tax No. 18-523-1-5

PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)

Not Applicable

PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT(S)

Permitting History

1. On May 14, 2003 a Permit was issued for the construct of Phase 1 of the C&D Landfill to MRR of High Point, LLC.
2. On February 10, 2004 a Permit was issued for the operation of Phase 1, Cell A of the C&D Landfill.
3. On December 9, 2004 a modification was made to the Permit for revised Operations Plans, a change in service area and operation of C&D Landfill Cells 2 & 3.
4. On December 28, 2007 an amendment was made to the Permit for change in ownership from MRR of High Point, LLC to WCA of High Point, LLC and operation of C&D Landfill Cells 4 & 5.
5. On February 20, 2009 an amendment was made to the Permit for construction of C&D Landfill Phase 2 and the five-year renewal of operations for C&D Landfill Phase 1, Cells 1-5.
6. On July 21, 2010 a modification was made to the Permit for operation of C&D Landfill Phase 2A.
7. On May 5, 2011 a substantial amendment was made to the Permit for an increase in service area.
8. On September 4, 2012 an amendment was made to the Permit for a change in ownership from WCA of High Point, LLC to WI High Point, LLC.
9. On January 16, 2014 an amendment was made to the Permit for the 10-year renewal of operations.

No.	Permit Type	Date Issued	Document ID No.
1.	Permit to Construct	May 14, 2003	
2.	Permit to Operate	February 10, 2004	
3.	Permit Modification	December 9, 2004	
4.	Permit Amendment	December 28, 2007	3286
5.	Permit Amendment	February 20, 2009	6710
6.	Permit Modification	July 21, 2010	11138
7.	Permit Amendment	May 5, 2011	12929
8.	Permit Amendment	September 4, 2012	17121
9.	Permit Amendment	January 16, 2014	20297

List of Documents for the Approved Plan

The descriptions of previous/historical documents are found in the Permit to Operate issued September 4, 2012, DIN 17121.

DOCUMENT ID NO.	DOCUMENT DESCRIPTION
19581	<i>Permit Renewal Application.</i> Prepared for: WI High Point Landfill (a Waste Industries Company) High Point, North Carolina. Prepared by: Smith+Gardner, Raleigh, NC. August 2013.
20160	<i>Permit to Operate Renewal Application – Franchise Agreement.</i> Prepared for: WI High Point Landfill (a Waste Industries Company) High Point, North Carolina. Prepared by: Smith+Gardner, Raleigh, NC. November 14, 2013.
20304	<i>Operations Plan.</i> Prepared for: WI High Point Landfill (a Waste Industries Company) High Point, North Carolina. Prepared by: Smith+Gardner, Raleigh, NC. August 2013.

PART IV: INDUSTRIAL LANDFILL UNIT(S)

Not Applicable

PART V: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT(S)

Not Applicable

PART VI: TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)

Permitting History

1. On March 13, 2003 a Permit was issued for the construction of the Reclamation Pad to MRR of High Point, LLC.
2. On February 10, 2004 a Permit was issued for the operation of the Reclamation Pad.
3. On December 9, 2004 a modification was made to the Permit for revised Operations Plans and a change in service area.
4. On December 28, 2007 an amendment was made to the Permit for change in ownership from MRR of High Point, LLC to WCA of High Point, LLC.
5. On February 20, 2009 an amendment was made to the Permit for construction of C&D Landfill Phase 2 and the five-year renewal of operations for the Reclamation Pad.
6. On May 5, 2011 a substantial amendment was made to the Permit for an increase in service area.
7. On September 4, 2012 an amendment was made to the Permit for change in ownership from WCA of High Point, LLC to WI High Point, LLC.

8. On January 16, 2014 an amendment was made to the Permit for the 5-year renewal of operations.

No.	Permit Type	Date Issued	Document ID No.
1.	Permit to Construct	March 13, 2003	
2.	Permit to Operate	February 10, 2004	
3.	Permit Modification	December 9, 2004	
4.	Permit Amendment	December 28, 2007	3286
5.	Permit Amendment	February 20, 2009	6710
6.	Permit Amendment	May 5, 2011	12929
7.	Permit Amendment	September 4, 2012	17121
8.	Permit to Operate	January 16, 2014	20297

List of Documents for the Approved Plan

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DOCUMENT ID NO.	DOCUMENT DESCRIPTION
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20304	<i>Operations Plan.</i> Prepared for: WI High Point Landfill (a Waste Industries Company) High Point, North Carolina. Prepared by: Smith+Gardner, Raleigh, NC. August 2013.

PART VII: MISCELLANEOUS SOLID WASTE MANAGEMENT

Not Applicable

- End of Section -

ATTACHMENT 2 CONDITIONS OF PERMIT TO CONSTRUCT

PART I: GENERAL FACILITY

1. Construction of any solid waste management facility requires written approval of the Section. Application for Permit to Construct must be prepared in accordance with applicable statutes and rules in effect on that date and will be subject to a permitting fee.
2. The initial, substantial, construction authorized by this Permit to construct must commence within 18 months from the issuance date of this permit. If substantial construction does not begin within 18 months from the issuance date of this permit, then the permit shall expire. Substantial construction includes, but is not limited to, issuance of construction contracts, mobilization of equipment on site, and construction activities including installation of sedimentation and erosion control structures. The permittee may re-apply for the Permit to Construct prior to the expiration date. The re-application will be subject to the statutes and rules in effect on that date and may be subject to additional fees.
3. Construction of all solid waste management units within this facility must be in accordance with the pertinent approved plans and only for those phases of development approved for construction as described in Attachment 1, Part III, and "List of Documents for the Approved Plan."
4. The permittee must conduct a preconstruction meeting at the facility prior to initiating construction of any unit/cell and must notify the Section at least ten (10) days prior to the meeting.
5. Modifications or revisions of the approved documents or changes during construction of any landfill unit/cell require approval by the Section, and may constitute a permit modification and be subject to a permitting fee.

Monitoring and Reporting Requirements

6. Prior to issuing the Permit to Operate, the ground water monitoring wells and surface water sampling locations must be sampled for the Appendix I constituent list.
7. Prior to construction of the phase or cell(s) within the phase, all piezometers, borings, and ground water monitoring wells within the footprint area must be properly abandoned in accordance with 15A NCAC 02C .0113 (b)(1), entitled "Abandonment of Wells." All piezometers within the footprint area must be overdrilled to the full depth of the boring, prior to cement or bentonite grout placement and the level of the grout within the boring must not exceed in height the elevation of the proposed basegrade.

8. All borings which intersect the water table at the site must be constructed and maintained as permanent monitoring wells in accordance with 15A NCAC 02C .0108 and certified as meeting this condition by a Licensed Geologist. A Licensed Geologist must supervise the installation of groundwater monitoring wells.
9. Any borings which intersect the water table at the site that are abandoned must be properly abandoned in accordance with the procedures for permanent abandonment of wells as delineated in 15A NCAC 02C .0113 and certified as meeting this condition by a Licensed Geologist.
10. The landfill subgrade must be graded in accordance to the approved plans and specifications. The permittee must have the subgrade inspected by a qualified geologist or engineer when excavation is completed. The permittee must notify the Section's hydrogeologist at least twenty-four (24) hours before subgrade inspection.
11. Within thirty (30) days of the completed construction of each new ground-water monitoring well, the well construction record (GW-1b form), well schematic, boring log, field log and notes, and description of well development activities must be submitted to the Section.
12. Within thirty (30) days of the completed permanent abandonment of a ground-water monitoring well, the well abandonment record (GW-30 form) and any additional information included in the abandonment record) must be submitted to the Section. The well abandonment records must be submitted to the Solid Waste Section in accordance with 15A NCAC 2C .0114(b) and be certified by a Licensed Geologist.
13. Any modification to the approved water quality monitoring, sampling, and analysis plan must be submitted to the Section hydrogeologist for review.
14. The permittee must obtain approval from the Section for the design, installation, and development and decommission of any monitoring well or piezometers. Any modification to an approved plan must be reviewed and approved by the Section. Documentation must be placed in the operating record and provided to the Section.

Erosion and Sedimentation Control Requirements

15. All required sedimentation and erosion control measures must be installed and operable to mitigate on-site erosion of the C&DLF facility or unit and to prevent sediment from leaving the C&DLF facility.
16. All land-disturbing activities must be conducted in accordance with the Sedimentation Pollution Control Law (15 NCAC 4) and consistent with any federal, state, or local requirements.

17. Facility construction, operations, or practices must not cause or result in a discharge, including dredged or fill material, into the waters of the state in violation of the requirements under Sections 401 and 404 of the Clean Water Act, as amended.
18. Modifications to the approved sedimentation and erosion control activities require approval by the North Carolina Land Quality Section. The Section must be notified of any sedimentation and erosion control plan modifications.

PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)

Not Applicable

PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT(S)

19. Pursuant to the North Carolina Solid Waste Management Rules 15A NCAC 13B .0201 (c) and (d) (1) and Rule 15A NCAC 13B .0534 (b) (2) (H), this permit approves construction of Phase 2 of the Waste Industries High Point C&D Debris Landfill. The construction was divided into two parts: Phase 2A, which has been constructed and approved for operation, and Phase 2B which requires construction. The construction of Phase 2A fulfilled the requirement of Item 2. The Permit to Construct Phase 2 shall expire January 16, 2024.
20. This permit authorizes the construction of Phase 2 of the Waste Industries High Point C&D Debris Landfill. Phase 2 consists of 9.4 acres and 965,412 cubic yards of gross capacity in accordance with the approved plan referenced in Attachment 1, Part III of this permit.
 - a. Gross capacity is the measured volume between the bottom of waste and the top of final cover.
 - b. Areas identified as future cells are deemed suitable for preparation of a permit application in accordance with North Carolina Solid Waste Rule 15A NCAC 13B .0536(a)(1). The permittee must submit an application for a Permit to Construct in compliance with applicable rules and statutes before commencement of construction in those future areas.
 - c. This permit approves the Facility Plan that defines the comprehensive development of the facility including the total C&DLF capacity, the C&D waste stream, all onsite solid waste management facilities and related infrastructure in accordance with 15 NCAC 13B .0537.
21. The following conditions must be met prior to operation of any unit /cell in the Phase 2 area.
 - a. The permittee must obtain a Permit to Operate the Phase 2 area from the Section in accordance with 15A NCAC 13B .201(d).

- b. Construction Quality Assurance (CQA) documentation as well as a certification by the project engineer that the landfill was built in accordance with approved plans and the conditions of the permit must be submitted to the Section for review and approval.
- c. The permittee must contact the appropriate regional environmental specialist and permitting engineer to determine whether the Section chooses to hold a pre-operative meeting with key landfill personnel and representatives of the Section.
- d. The edge of the waste footprint must be identified with a permanent physical marker.

PART IV: INDUSTRIAL LANDFILL UNIT(S)

Not Applicable

PART V: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT(S)

Not Applicable

PART VI: TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)

Not Applicable

PART VII: MISCELLANEOUS SOLID WASTE MANAGEMENT

Not Applicable

- End of Section-

ATTACHMENT 3 CONDITIONS OF PERMIT TO OPERATE

PART I: GENERAL FACILITY

1. Financial assurance as required by state rules and statutes must be continuously maintained for the duration of the facility in accordance with applicable rules and statutes. Closure and Post-Closure cost estimates and financial instruments must be updated annually.
2. All sedimentation and erosion control activities must be conducted in accordance with the Sedimentation Control Act N.C.G.S. 113A-50, et seq., and rules promulgated under 15A NCAC 4.
3. The edge of the waste footprint for all disposal units must be identified with permanent physical markers.
4. The permittee must not knowingly dispose of, or accept for transfer for subsequent disposal, construction and demolition waste that is generated within the boundaries of a unit of local government that by ordinance:
 - a. Prohibits generators or collectors of construction and demolition waste from disposing of that type or form of municipal solid waste.
 - b. Requires generators or collectors of construction and demolition waste to recycle that type or form of municipal solid waste.
5. Copies of this permit, the approved plans and all records required to be maintained by the permittee must be maintained at the facility, unless otherwise approved by the Section, and made available to the Section upon request during normal business hours.
6. Closure or partial closure of any unit must be in accordance with the Closure Plans described in the approved plans and applicable rules and statutes. Revised Closure Plans must be submitted to the Division at least 90 days prior to implementation.

Operational Requirements

7. This facility is permitted to receive solid waste generated within the following counties: Guilford, Randolph, Davidson, Forsyth, Rockingham, Caswell, Alamance, Orange, Cabarrus, Rowan, Davie, Yadkin, Surry, and Stokes Counties and the municipalities contained within those counties consistent with the franchise approved by the City of High Point. Waste receipt must be consistent with the local government waste management plan and with local government approval and as defined in G.S. 130-290 (a)(18a) and (35), except where prohibited by the N. C. General Statutes Article 9 of Chapter 130A, and the rules adopted by the Commission for Health Services.

8. The facility operator must complete an approved operator training course in compliance with G.S. 130A-309.25.
 - a. A responsible individual certified in landfill operations must be on-site during all operating hours of the facility at all times while open for public use to ensure compliance with operational requirements.
 - b. All pertinent landfill-operating personnel must receive training and supervision necessary to properly operate the landfill units in accordance with G.S. 130A-309.25 and addressed by memorandum dated November 29, 2000.
9. Alternative daily cover materials and methods must be used in accordance with the approved plans and Solid Waste Section guidelines. Any alternative daily cover materials or methods not previously approved by the Section require review and approval before use. In these cases, a request for use must include a plan detailing the comprehensive use and a demonstration of the effectiveness of the alternative daily cover. The plan must be developed according to Section guidelines. Plans which are approved by the Section will be incorporated into, and made a part of, the approved documents listed in Attachment 1.
10. The facility must maintain records for all solid waste materials accepted as alternative cover material and used as alternate daily cover. The records must include: the date of receipt, weight of material, general description of the material, identity of the generator and transporter, and county of origin. Such records must be made available to the Solid Waste Section upon request.

Monitoring and Reporting Requirements

11. Groundwater, surface water, and landfill gas monitoring locations must be established and monitored as identified in the approved plans.
12. A licensed geologist must be present to supervise the installation of groundwater monitoring wells. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the SWS Hydrogeologist at the time of well installation.
13. Ground water monitoring wells and surface water sampling locations must be sampled for Appendix I constituents at least semi-annually according to the specifications outlined in the approved water quality monitoring plan and the current policies and guidelines of the Section in effect at the time of sampling.
14. Landfill gas monitoring wells must be sampled for explosive gases at least quarterly and according to specifications outlined in the approved landfill gas monitoring plan and current policies and guidelines of the Section in effect at the time of sampling.
15. Reports of the analytical data for each monitoring event must be submitted to the Section within 120 days of the respective sampling event. Analytical data must be submitted in a

manner prescribed by the Section. Records of all groundwater, surface water, and leachate analytical data must be kept as part of the permanent facility record.

16. A readily accessible unobstructed path must be cleared and maintained so that four-wheel vehicles may access monitoring well locations at all times.
17. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each surface water and leachate sampling location must be kept as part of the permanent facility record.
18. All well construction records and soil boring logs for new wells must be submitted to the Solid Waste Section Hydrogeologist for review within 30 days of completion.
19. The owner or operator must maintain a record of the amount of solid waste received at the landfill unit, compiled on a monthly basis. Scales must be used to weigh the amount of waste received.
20. On or before August 1 annually, the Permittee must submit an annual facility report to the Solid Waste Section, on forms prescribed by the Section.
 - a. The reporting period shall be for the previous year beginning July 1 and ending June 30.
 - b. The annual facility report must list the amount of waste received and landfilled in tons and be compiled:
 - i) On a monthly basis.
 - ii) By county, city or transfer station of origin.
 - iii) By specific waste type.
 - iv) By disposal location within the facility.
 - v) By diversion to alternative management facilities.
 - c. A measurement of volume utilized in the landfill cells must be performed during the second quarter of the calendar year. The date and volumes, in cubic yards, must be included in the report.
 - d. The amount of waste, in tons from scale records, disposed in landfill cells from February 10, 2004 through the date of the annual volume survey must be included in the report.
 - e. The tons of waste recycled, recovered, or diverted from disposal, including a description of how and where the material was ultimately managed must be included in the report.

- f. The completed report must be forwarded to the Regional Waste Management Specialist for the facility by the date due on the prescribed annual facility report form.
- g. A copy of the completed report must be forwarded to each county manager for each county from which waste was received at the facility. Documentation that a copy of the report has been forwarded to the county managers must be sent to the Regional Waste Management Specialist by the date due on the prescribed annual facility report form.

PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)

Not Applicable

PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT(S)

- 21. The Permit to Operate shall expire **January 16, 2024**. Pursuant to 15A NCAC 13 B 0.0201(c), the permittee must submit a permit amendment application prepared in accordance with 15 A NCAC .0535 to the Section no later than **July 16, 2023**.
- 22. Pursuant to NCGS 130A-294(a2), 15A NCAC 13 B 0.0201(g) and 15A NCAC 13 B 0.0206(b), the Permit to Operate is subject to a limited review by **January 16, 2019** (five years after issuance date). The permit must request the five-year limited review on or before **July 16, 2018**. A five-year limited review of a 10-year permit includes review of the operations plan, closure plan, post-closure plan, financial assurance cost estimates, environmental monitoring plans and any other applicable plans for the facility.
- 23. This permit approves the continued operation of Phase 1, Cells 1, 2, 3, 4, and 5 and Phase 2A of the C&DLF at the facility. Phase 2A is approximately 4.7 acres. Operation of Phase 2B, and any future phases or cells of the C&DLF, requires the written approval of the Section after it is determined that the phase was constructed in accordance with the applicable statutes and rules and will be subject to a permitting fee.
- 24. The permitted annual waste disposal rate is approximately 98,600 tons per year, with a maximum variance in accordance with G.S. 130A-294(b1)(1). This rate is approximately 315 tons per day assuming 285 operating days per year as identified in the approved plan and consistent with the franchise granted by the City of High Point and amended December 12, 2006.
- 25. The following table lists the details for the C&D landfill unit. Gross capacity is defined as the volume of the landfill calculated from the elevation of the initial waste placement through the top of the final cover, including any periodic cover.

Phase	Area (acres)	Gross capacity (cubic yards)	Status
1	12.5	637,380	Operational
2A	4.7	482,706	Operational
2B	4.7	~482,706	Future
3	6.5	489,478	Future
4	5.6	810,639	Future
5	8.5	607,456	Future
6	3.6	853,317	Future
Total	46.1	4,251,206	

26. The C&DLF is permitted to receive the following waste types:
- a. “Construction or demolition debris” as defined in NCGS 130A-290 (a)(4) means solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures, but does not include inert debris, land-clearing debris or yard debris.
 - b. “Inert debris” as defined in NCGS 130A-290 (a)(14) means solid waste that consists solely of material such as concrete, brick, concrete block, uncontaminated soil, rock, and gravel.
 - c. “Land-clearing debris” as defined in NCGS 130A-290 (a)(15) means solid waste that is generated solely from land-clearing activities, limited to stumps, trees, limbs, brush, grass, and other vegetative material.
 - d. “Asphalt” in accordance with NCGS 130-294(m).
27. Source separated wood pallets and cardboard from non-C&D waste sources may be accepted at the site for recycling, but the materials must not be unloaded onto the tipping floor. Wood pallets must be directly unloaded onto the sorted clean wood pile or into a wood materials container, and cardboard must be unloaded directly into a storage container.
28. Regulated asbestos-containing material as defined in 40 CFR 61 must be managed in accordance with 40 CFR 61. Disposal of asbestos waste must be in accordance with 15 NCAC 13B .0542 (c).
29. Those wastes listed in 15A NCAC 13B .0542 (e) must not be accepted for disposal, including, but not limited to, hazardous waste, municipal solid waste, liquid waste, commercial or industrial wastes, and yard trash.
30. Wastewater treatment sludge is not approved for disposal. Wastewater treatment sludge may be accepted, with the approval of the Section, for utilization as a soil conditioner and

incorporated into or applied onto the vegetative growth layer. The wastewater treatment sludge must not be applied at greater than agronomic rates nor to a depth greater than six inches.

31. The permittee must actively employ a training and screening program at the facility prepared in accordance with Section .0544(e) for detecting and preventing the disposal of excluded or unauthorized wastes. At a minimum, the program must include:
 - a. Random inspections of incoming loads or other comparable procedures;
 - b. Records of any inspections;
 - c. Training of personnel to recognize hazardous, liquid, and other excluded waste types; and
 - d. Development of a contingency plan to properly manage any identified hazardous, liquid, MSW, or other excluded or unauthorized wastes. The plan must address identification, removal, storage, and final disposition of these wastes.
32. A closure and post-closure plan must be submitted for approval at least ninety (90) days prior to closure or partial closure of any landfill unit. The plan must include all steps and measures necessary to close and maintain the C&D unit in accordance with all rules in effect at that time. At a minimum, the plan must address the following:
 - a. Design of a final cover system in accordance with 15 NCAC 13B .0543(c), or the solid waste management rules in effect at the time of closure;
 - b. Construction and maintenance/operation of the final cover system and erosion control structures; and
 - c. Surface water, ground water, and explosive gas monitoring.

PART IV: INDUSTRIAL LANDFILL UNIT(S)

Not Applicable

PART V: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT(S)

Not Applicable

PART VI - TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)

33. The Permit to Operate shall expire **January 16, 2019**. Pursuant to 15A NCAC 13B .0201(e), no later than **July 16, 2018**, the owner or operator must submit a request to the Section for permit review and must update pertinent facility plans including, but not limited to, the facility operation and waste screening plans
34. This permit approves the continued operation of the C&D Waste Reclamation Pad at the facility.

35. Construction waste placed on the reclamation pad must be sorted each operating day, and no waste shall remain on the pad after operating hours unless covered by tarp to prevent leaching by rainfall.
 - a. Only an amount of waste sufficient to begin sorting operations the next day may be left on the reclamation pad.
 - b. In the event the sorting process is not operational, then waste may not be deposited on the reclamation pad and must be diverted directly to the landfill unit.
 - c. Except for wood, concrete and aggregate, recoverable materials must be placed in containers. Recovered materials placed in containers must be removed from the site once the container is full. A limit of approximately 150 cubic yards of wood may be stockpiled at any time.
 - d. Non-recyclable materials must be securely placed in containers or trucks, and disposed in the on- site C&DLF at the end of the operating day.
36. If demolition waste is to be sorted and recycled, then an asbestos screening plan must be submitted to the Division of Epidemiology of the Department of Health and Human Services for approval and the approved plan forwarded to the Section for inclusion in the operations plan for the facility. Otherwise, asbestos containing material or material suspected to contain asbestos must not be placed on the reclamation pad.
37. Control measures must be utilized to minimize and eliminate visible dust emissions and blowing litter emanating from materials on the reclamation pad.
 - a. Fugitive dust emissions are prohibited.
 - b. Windblown materials must be collected at the end of the day and no material may be allowed to leave the facility boundary.
38. Appropriately sized containers for receipt of sorted wastes materials must be on-site when waste is placed on the reclamation pad for sorting.
39. Waste must not be placed on the reclamation pad during inclement weather unless run-off control measures are installed. Run-off from the reclamation pad must be collected and properly disposed.
40. Documentation of delivery of all recovered material to valid end-users, processors, or recyclers must be maintained in the facility operating record.
41. Material processing, shredding and grinding operations shall only occur in compliance with any local ordinance or special use permit.

PART VII- MISCELLANEOUS SOLID WASTE MANAGEMENT

Not Applicable

- End of Section-

ATTACHMENT 4
CONDITIONS OF PERMIT FOR CLOSURE

PART I: GENERAL FACILITY

Not Applicable

PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)

Not Applicable

PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT(S)

Not Applicable

PART IV: INDUSTRIAL LANDFILL UNIT(S)

Not Applicable

PART V: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT(S)

Not Applicable

PART VI: TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)

Not Applicable

PART VII: MISCELLANEOUS SOLID WASTE MANAGEMENT

Not Applicable

- End of Permit Conditions -

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Appendix B

Photographic Log

**Construction Quality Assurance Report
WI High Point Landfill, LLC – Phase 2B-1 Construction
High Point, North Carolina**

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Client Name:
WI High Point Landfill, LLC

Site Location:
Phase 2B-1 Construction

Project No.
WIHIGHPOINT-14-2

Photo No.

1

Date:

5/9/2014

Direction Photo Taken:

South

Description:

Clearing of cell.



Photo No.

2

Date:

5/9/2014

Direction Photo Taken:

East

Description:

Clearing and mulching of cell.



Client Name:
WI High Point Landfill, LLC

Site Location:
Phase 2B-1 Construction

Project No.
WIHIGHPOINT-14-2

Photo No.
3

Date:
5/9/2014

Direction Photo Taken:

Northeast

Description:

Double silt fence along toe of berm.



Photo No.
4

Date:
5/9/2014

Direction Photo Taken:

North towards cell entrance

Description:

Silt fence installation along roadway berm.



Client Name: WI High Point Landfill, LLC		Site Location: Phase 2B-1 Construction	Project No. WIHIGHPOINT-14-2
Photo No. 5	Date: 5/9/2014		
Direction Photo Taken: East			
Description: Diversion berm construction around stockpile area.			

Photo No. 6	Date: 5/9/2014		
Direction Photo Taken: West			
Description: Installation of drop box for drainage in stockpile area.			

Client Name:
WI High Point Landfill, LLC**Site Location:**
Phase 2B-1 Construction**Project No.**
WIHIGHPOINT-14-2**Photo No.****7****Date:**

5/9/2014

Direction Photo Taken:

North

Description:

Drop box installation

**Photo No.****8****Date:**

5/16/2014

Direction Photo Taken:

North

Description:

Start of excavation.



Client Name:
WI High Point Landfill, LLC

Site Location:
Phase 2B-1 Construction

Project No.
WIHIGHPOINT-14-2

Photo No.
9

Date:
5/9/2014

Direction Photo Taken:

South

Description:

Stockpile area.



Photo No.
10

Date:
6/11/2014

Direction Photo Taken:

South from top of cell.

Description:

Completed grading.



Client Name:
WI High Point Landfill, LLC

Site Location:
Phase 2B-1 Construction

Project No.
WIHIGHPOINT-14-2

Photo No.
11

Date:
6/11/2014

Direction Photo Taken:

South

Description:

Roadway and accompanying embankment with matting.



Photo No.
12

Date:
Dinot 10

Direction Photo Taken:

North

Description:

Looking from the bottom of the cell upwards along temporary roadway.



Appendix C

Subgrade Inspection and Piezometer Abandonment

**Construction Quality Assurance Report
WI High Point Landfill, LLC – Phase 2B-1 Construction
High Point, North Carolina**

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June 13, 2014

Ms. Christine Ritter
Hydrogeologist - SWS
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

**RE: WI High Point Cell 2B Subgrade – Permit No. 41-16
Jamestown, North Carolina**

Dear Ms. Ritter:

On behalf of Waste Industries I am pleased to submit this letter subgrade certification for the WI High Point Facility (Permit No. 41-16) in Jamestown, North Carolina.

On May 28, 2014, I visited the WI High Point Landfill Facility for the purpose of inspecting the subgrade in the Phase 2 Cell 2B portion of the site. On the day of inspection I found the soil types were consistent with those encountered during drilling (primarily sandy silt and PWR above bedrock). Bedrock was identified during permitting; however subgrade and cell construction was engineered to be above bedrock with the required 4 feet of vertical separation.

During the May 2014 site visit I observed a small area had not been brought to subgrade elevations due to some partially weathered rock (PWR) that was difficult to remove with the contractor's backhoe. The area was re-evaluated on June 11, 2014 during the final walk through. Proposed subgrade elevations were not reached in an area approximately 10' x 15'. This location is provided in the as-built and construction drawings, included in the CQA report. It was agreed that based on the small amount of material remaining and the consistency of material across the subgrade, it was not worth the additional cost to further remove the remaining PWR. Since the small exposure is classified as PWR, and not as bedrock, additional adjustments to the subgrade will not be necessary.

Based on my observations, I certify that the subgrade material was materially consistent with the soil types found during the site investigation.

Ms. Ritter
June 13, 2014
Page 2 of 2

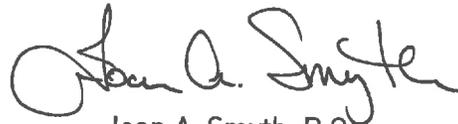
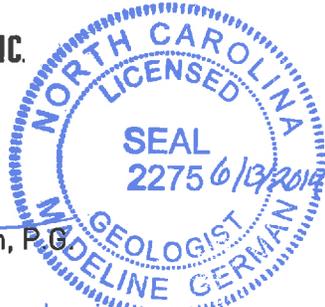
Should you have any questions or require clarification, please contact us at (919) 828-0577 or by email below.

Sincerely,
SMITH GARDNER, INC.



Madeline German, P.G.
Project Geologist

madeline@smithgardnerinc.com



Joan A. Smyth, P.G.
Senior Hydrogeologist

joan@smithgardnerinc.com

cc: Roger Marcum, WI High Point
David Pepper, Waste Industries
File

May 8, 2014

Ms. Christine Ritter
NCDENR Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

**RE: WI High Point Landfill Piezometer Abandonment
WI High Point C&D Landfill
Permit No. 41-16**

Dear Ms. Ritter:

Smith Gardner, Inc., (S+G) is pleased to present this letter report regarding piezometer abandonment at the WI High Point C&D Landfill. Five piezometers were abandoned in accordance with 15A NCAC 02C .0113 and the approved site Water Quality Monitoring Plan.

Piezometer Abandonment

S+G subcontracted Geologic Explorations to abandon P-11, P-26, P-26D, P-27 and P-28 which were installed in and around the footprint of the future Phase 2B-1 C&D cell as part of the permit application groundwater investigation. Due to the location of piezometer P-26 within the future cell footprint, proper abandonment included over-drilling while the remaining piezometers, located outside the future footprint were simply grouted.

S+G and Geologic Explorations personnel mobilized at the WI High Point facility on March 14, 2014. For P-26 the well abandonment procedure included removing the concrete pad, steel casing and over-drilling to well bottom elevation with hollow stem augers.

Grout was injected into the borehole through a tremie pipe starting at the well bottom and pumped to the approved subgrade elevation in one continuous operation. The remaining piezometers were grouted from bottom to top using a tremie pipe. Each piezometer was grouted to the approximate future subgrade elevation to allow for future soil grading. In areas of future fill, grout was emplaced to the current ground surface.

Well abandonment logs are provided as **Attachment A. Figure 1** shows the abandoned well locations.

Ms. Ritter
May 8, 2014
Page 2 of 2

If you have any questions regarding this well abandonment letter or require additional information, please contact us at (919) 828- 0577 or by email below.

Sincerely,
SMITH GARDNER, INC.



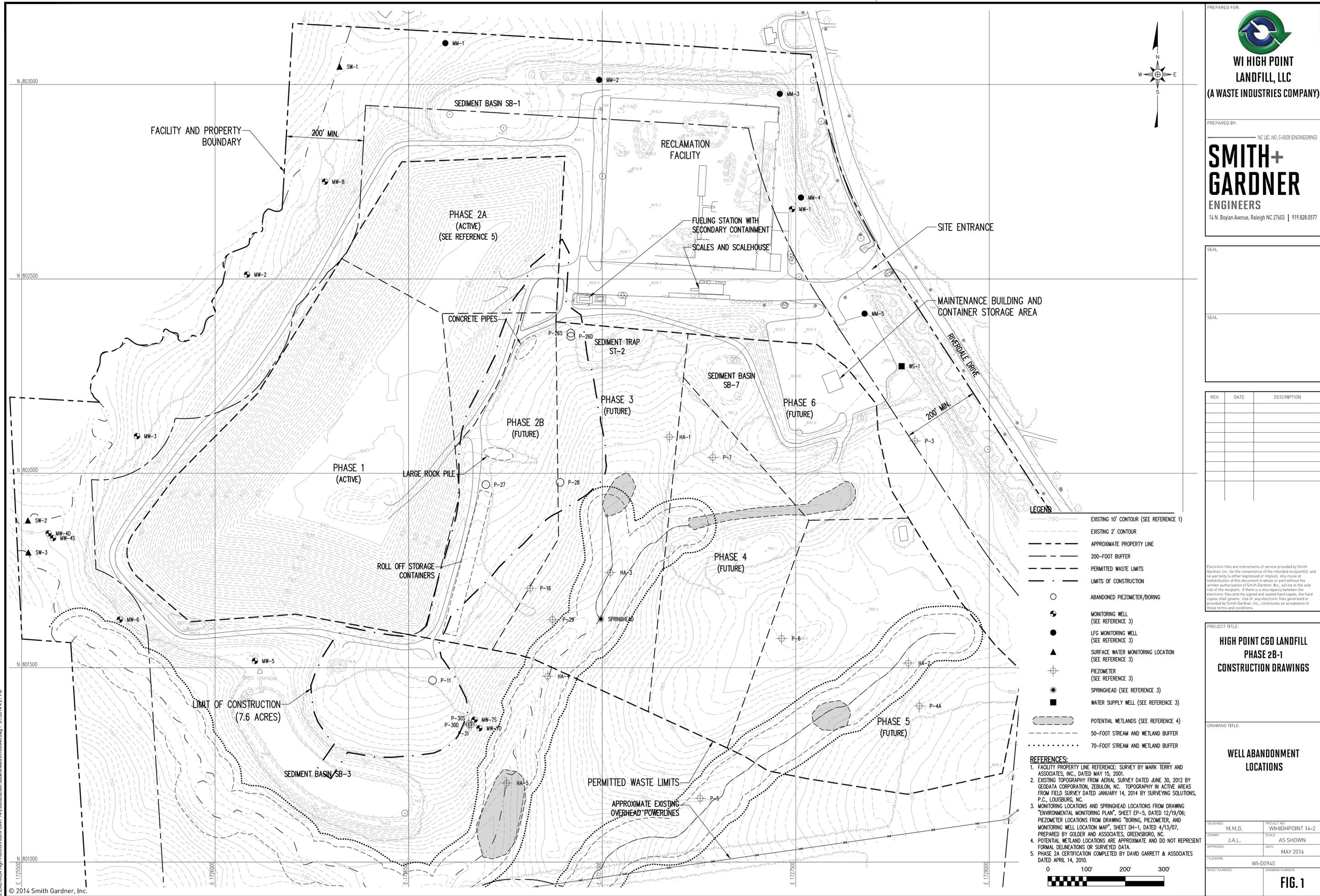
Carter T. Shore, E.I.
Staff Engineer
carter@smithgardnerinc.com



Joan A. Smyth, P.G.
Senior Hydrogeologist
joan@smithgardnerinc.com

Attachments: Figure 1
 Well abandonment records

cc: Roger Marcum, WI High Point Landfill, LLC.
 David Pepper, Waste Industries USA, Inc.
 File



SEAL

SEAL

REV.	DATE	DESCRIPTION

Electronic files are instruments of service provided by Smith Gardner, Inc. for the convenience of the intended recipient(s), and no warranty is either expressed or implied. Any reuse or redistribution of this document in whole or part without the written authorization of Smith Gardner, Inc. will be at the sole risk of the recipient. If there is a discrepancy between the electronic files and the signed and sealed hard copies, the hard copies shall govern. Use of any electronic files generated or provided by Smith Gardner, Inc. constitutes an acceptance of these terms and conditions.

PROJECT TITLE:
HIGH POINT C&D LANDFILL PHASE 2B-1 CONSTRUCTION DRAWINGS

DRAWING TITLE:
WELL ABANDONMENT LOCATIONS

DESIGNED: M.M.G.	PROJECT NO: WIGHIGHPOINT 14-2
DRAWN: J.A.L.	SCALE: AS SHOWN
APPROVED: DATE: MAY 2014	FILE NAME: WI-D0940
SHEET NUMBER: WI-D0940	DRAWING NUMBER: FIG. 1

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WELL ABANDONMENT RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

BRIAN THOMAS

Well Contractor Name (or well owner personally abandoning well on his/her property)

A - 2581

NC Well Contractor Certification Number

GEOLOGIC EXPLORATION, INC

Company Name

2. Well Construction Permit #:

List all applicable well construction permits (i.e. County, State, Variance, etc.) if known

3. Well use (check well use):

Water Supply Well:	
<input type="checkbox"/> Agricultural	<input type="checkbox"/> Municipal/Public
<input type="checkbox"/> Geothermal (Heating/Cooling Supply)	<input type="checkbox"/> Residential Water Supply (single)
<input type="checkbox"/> Industrial/Commercial	<input type="checkbox"/> Residential Water Supply (shared)
<input type="checkbox"/> Irrigation	
Non-Water Supply Well:	
<input type="checkbox"/> Monitoring	<input type="checkbox"/> Recovery
Injection Well:	
<input type="checkbox"/> Aquifer Recharge	<input type="checkbox"/> Groundwater Remediation
<input type="checkbox"/> Aquifer Storage and Recovery	<input type="checkbox"/> Salinity Barrier
<input type="checkbox"/> Aquifer Test	<input type="checkbox"/> Stormwater Drainage
<input type="checkbox"/> Experimental Technology	<input type="checkbox"/> Subsidence Control
<input type="checkbox"/> Geothermal (Closed Loop)	<input type="checkbox"/> Tracer
<input type="checkbox"/> Geothermal (Heating/Cooling Return)	<input type="checkbox"/> Other (explain under 7g)

4. Date well(s) abandoned: 03/14/14

5a. Well location:

WI HIGH POINT LANDFILL

Facility/Owner Name

Facility ID# (if applicable)

5830 RIVERDALE DRIVE JAMESTOWN 27282

Physical Address, City, and Zip

GUILFORD

County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

35° 57' 04.44" N 79° 55' 20.48" W

CONSTRUCTION DETAILS OF WELL(S) BEING ABANDONED

Attach well construction record(s) if available. For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

6a. Well ID#: P-26S

6b. Total well depth: 28.0 (ft.)

6c. Borehole diameter: 2.0 (in.)

6d. Water level below ground surface: 24.0 (ft.)

6e. Outer casing length (if known): _____ (ft.)

6f. Inner casing/tubing length (if known): _____ (ft.)

6g. Screen length (if known): _____ (ft.)

For Internal Use ONLY:

WELL ABANDONMENT DETAILS

7a. Number of wells being abandoned: 1
For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

7b. Approximate volume of water remaining in well(s): 0.75 (gal.)

FOR WATER SUPPLY WELLS ONLY:

7c. Type of disinfectant used: _____

7d. Amount of disinfectant used: _____

7e. Sealing materials used (check all that apply):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Neat Cement Grout | <input type="checkbox"/> Bentonite Chips or Pellets |
| <input type="checkbox"/> Sand Cement Grout | <input type="checkbox"/> Dry Clay |
| <input type="checkbox"/> Concrete Grout | <input type="checkbox"/> Drill Cuttings |
| <input type="checkbox"/> Specialty Grout | <input type="checkbox"/> Gravel |
| <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Other (explain under 7g) |

7f. For each material selected above, provide amount of materials used:

4.5 GALLONS

7g. Provide a brief description of the abandonment procedure:

WELL ABANDONED VIA TREMIE PIPE WITH

PORTLAND BENTONITE SLURRY

OVERDRILL

PIEZOMETER

8. Certification:



03/17/14

Signature of Certified Well Contractor or Well Owner

Date

By signing this form, I hereby certify that the well(s) was (were) abandoned in accordance with 15A NCAC 02C .0100 or 2C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

9. Site diagram or additional well details:

You may use the back of this page to provide additional well site details or well abandonment details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

10a. **For All Wells:** Submit this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

10b. **For Injection Wells:** In addition to sending the form to the address in 10a above, also submit one copy of this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

10c. **For Water Supply & Injection Wells:** In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well abandonment to the county health department of the county where abandoned.

WELL ABANDONMENT RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

BRIAN THOMAS

Well Contractor Name (or well owner personally abandoning well on his/her property)

A - 2581

NC Well Contractor Certification Number

GEOLOGIC EXPLORATION, INC

Company Name

2. Well Construction Permit #:

List all applicable well construction permits (i.e. County, State, Variance, etc.) if known

3. Well use (check well use):

Water Supply Well:	
<input type="checkbox"/> Agricultural	<input type="checkbox"/> Municipal/Public
<input type="checkbox"/> Geothermal (Heating/Cooling Supply)	<input type="checkbox"/> Residential Water Supply (single)
<input type="checkbox"/> Industrial/Commercial	<input type="checkbox"/> Residential Water Supply (shared)
<input type="checkbox"/> Irrigation	
Non-Water Supply Well:	
<input type="checkbox"/> Monitoring	<input type="checkbox"/> Recovery
Injection Well:	
<input type="checkbox"/> Aquifer Recharge	<input type="checkbox"/> Groundwater Remediation
<input type="checkbox"/> Aquifer Storage and Recovery	<input type="checkbox"/> Salinity Barrier
<input type="checkbox"/> Aquifer Test	<input type="checkbox"/> Stormwater Drainage
<input type="checkbox"/> Experimental Technology	<input type="checkbox"/> Subsidence Control
<input type="checkbox"/> Geothermal (Closed Loop)	<input type="checkbox"/> Tracer
<input type="checkbox"/> Geothermal (Heating/Cooling Return)	<input type="checkbox"/> Other (explain under 7g)

4. Date well(s) abandoned: 03/14/14

5a. Well location:

WI HIGH POINT LANDFILL

Facility/Owner Name

Facility ID# (if applicable)

5830 RIVERDALE DRIVE JAMESTOWN 27282

Physical Address, City, and Zip

GUILFORD

County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

35° 56' 54.85" N 79° 55' 25.78" W

CONSTRUCTION DETAILS OF WELL(S) BEING ABANDONED

Attach well construction record(s) if available. For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

6a. Well ID#: P-11

6b. Total well depth: 40.0 (ft.)

6c. Borehole diameter: 2.0 (in.)

6d. Water level below ground surface: DRY (ft.)

6e. Outer casing length (if known): _____ (ft.)

6f. Inner casing/tubing length (if known): _____ (ft.)

6g. Screen length (if known): _____ (ft.)

For Internal Use ONLY:

WELL ABANDONMENT DETAILS

7a. Number of wells being abandoned: 1
For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

7b. Approximate volume of water remaining in well(s): _____ (gal.)

FOR WATER SUPPLY WELLS ONLY:

7c. Type of disinfectant used: _____

7d. Amount of disinfectant used: _____

7e. Sealing materials used (check all that apply):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Neat Cement Grout | <input type="checkbox"/> Bentonite Chips or Pellets |
| <input type="checkbox"/> Sand Cement Grout | <input type="checkbox"/> Dry Clay |
| <input type="checkbox"/> Concrete Grout | <input type="checkbox"/> Drill Cuttings |
| <input type="checkbox"/> Specialty Grout | <input type="checkbox"/> Gravel |
| <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Other (explain under 7g) |

7f. For each material selected above, provide amount of materials used:

6.5 GALLONS

7g. Provide a brief description of the abandonment procedure:

WELL ABANDONED VIA TREMIE PIPE WITH
PORTLAND BENTONITE SLURRY

PIEZOMETER

8. Certification:



03/17/14

Signature of Certified Well Contractor or Well Owner

Date

By signing this form, I hereby certify that the well(s) was (were) abandoned in accordance with 15A NCAC 02C .0100 or 2C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

9. Site diagram or additional well details:

You may use the back of this page to provide additional well site details or well abandonment details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

10a. **For All Wells:** Submit this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

10b. **For Injection Wells:** In addition to sending the form to the address in 10a above, also submit one copy of this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

10c. **For Water Supply & Injection Wells:** In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well abandonment to the county health department of the county where abandoned.

WELL ABANDONMENT RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

BRIAN THOMAS

Well Contractor Name (or well owner personally abandoning well on his/her property)

A - 2581

NC Well Contractor Certification Number

GEOLOGIC EXPLORATION, INC

Company Name

2. Well Construction Permit #:

List all applicable well construction permits (i.e. County, State, Variance, etc.) if known

3. Well use (check well use):

Water Supply Well:	
<input type="checkbox"/> Agricultural	<input type="checkbox"/> Municipal/Public
<input type="checkbox"/> Geothermal (Heating/Cooling Supply)	<input type="checkbox"/> Residential Water Supply (single)
<input type="checkbox"/> Industrial/Commercial	<input type="checkbox"/> Residential Water Supply (shared)
<input type="checkbox"/> Irrigation	
Non-Water Supply Well:	
<input type="checkbox"/> Monitoring	<input type="checkbox"/> Recovery
Injection Well:	
<input type="checkbox"/> Aquifer Recharge	<input type="checkbox"/> Groundwater Remediation
<input type="checkbox"/> Aquifer Storage and Recovery	<input type="checkbox"/> Salinity Barrier
<input type="checkbox"/> Aquifer Test	<input type="checkbox"/> Stormwater Drainage
<input type="checkbox"/> Experimental Technology	<input type="checkbox"/> Subsidence Control
<input type="checkbox"/> Geothermal (Closed Loop)	<input type="checkbox"/> Tracer
<input type="checkbox"/> Geothermal (Heating/Cooling Return)	<input type="checkbox"/> Other (explain under 7g)

4. Date well(s) abandoned: 03/14/14

5a. Well location:

WI HIGH POINT LANDFILL

Facility/Owner Name

Facility ID# (if applicable)

5830 RIVERDALE DRIVE JAMESTOWN 27282

Physical Address, City, and Zip

GUILFORD

County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

35° 57' 00.14" N 79° 55' 21.80" W

CONSTRUCTION DETAILS OF WELL(S) BEING ABANDONED

Attach well construction record(s) if available. For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

6a. Well ID#: P-28

6b. Total well depth: 38.5 (ft.)

6c. Borehole diameter: 2.0 (in.)

6d. Water level below ground surface: 21.0 (ft.)

6e. Outer casing length (if known): _____ (ft.)

6f. Inner casing/tubing length (if known): _____ (ft.)

6g. Screen length (if known): _____ (ft.)

For Internal Use ONLY:

WELL ABANDONMENT DETAILS

7a. Number of wells being abandoned: 1
For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

7b. Approximate volume of water remaining in well(s): 3.0 (gal.)

FOR WATER SUPPLY WELLS ONLY:

7c. Type of disinfectant used: _____

7d. Amount of disinfectant used: _____

7e. Sealing materials used (check all that apply):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Neat Cement Grout | <input type="checkbox"/> Bentonite Chips or Pellets |
| <input type="checkbox"/> Sand Cement Grout | <input type="checkbox"/> Dry Clay |
| <input type="checkbox"/> Concrete Grout | <input type="checkbox"/> Drill Cuttings |
| <input type="checkbox"/> Specialty Grout | <input type="checkbox"/> Gravel |
| <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Other (explain under 7g) |

7f. For each material selected above, provide amount of materials used:

6.25 GALLONS

7g. Provide a brief description of the abandonment procedure:

WELL ABANDONED VIA TREMIE PIPE WITH
PORTLAND BENTONITE SLURRY

PIEZOMETER

8. Certification:



03/17/14

Signature of Certified Well Contractor or Well Owner

Date

By signing this form, I hereby certify that the well(s) was (were) abandoned in accordance with 15A NCAC 02C .0100 or 2C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

9. Site diagram or additional well details:

You may use the back of this page to provide additional well site details or well abandonment details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

10a. **For All Wells:** Submit this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

10b. **For Injection Wells:** In addition to sending the form to the address in 10a above, also submit one copy of this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

10c. **For Water Supply & Injection Wells:** In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well abandonment to the county health department of the county where abandoned.

WELL ABANDONMENT RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

BRIAN THOMAS

Well Contractor Name (or well owner personally abandoning well on his/her property)

A - 2581

NC Well Contractor Certification Number

GEOLOGIC EXPLORATION, INC

Company Name

2. Well Construction Permit #:

List all applicable well construction permits (i.e. County, State, Variance, etc.) if known

3. Well use (check well use):

Water Supply Well:	
<input type="checkbox"/> Agricultural	<input type="checkbox"/> Municipal/Public
<input type="checkbox"/> Geothermal (Heating/Cooling Supply)	<input type="checkbox"/> Residential Water Supply (single)
<input type="checkbox"/> Industrial/Commercial	<input type="checkbox"/> Residential Water Supply (shared)
<input type="checkbox"/> Irrigation	
Non-Water Supply Well:	
<input type="checkbox"/> Monitoring	<input type="checkbox"/> Recovery
Injection Well:	
<input type="checkbox"/> Aquifer Recharge	<input type="checkbox"/> Groundwater Remediation
<input type="checkbox"/> Aquifer Storage and Recovery	<input type="checkbox"/> Salinity Barrier
<input type="checkbox"/> Aquifer Test	<input type="checkbox"/> Stormwater Drainage
<input type="checkbox"/> Experimental Technology	<input type="checkbox"/> Subsidence Control
<input type="checkbox"/> Geothermal (Closed Loop)	<input type="checkbox"/> Tracer
<input type="checkbox"/> Geothermal (Heating/Cooling Return)	<input type="checkbox"/> Other (explain under 7g)

4. Date well(s) abandoned: 03/14/14

5a. Well location:

WI HIGH POINT LANDFILL

Facility/Owner Name

Facility ID# (if applicable)

5830 RIVERDALE DRIVE JAMESTOWN 27282

Physical Address, City, and Zip

GUILFORD

County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

35° 57' 00.11" N 79° 55' 24.18" W

CONSTRUCTION DETAILS OF WELL(S) BEING ABANDONED

Attach well construction record(s) if available. For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

6a. Well ID#: P-27

6b. Total well depth: 40.0 (ft.)

6c. Borehole diameter: 2.0 (in.)

6d. Water level below ground surface: 21.0 (ft.)

6e. Outer casing length (if known): _____ (ft.)

6f. Inner casing/tubing length (if known): _____ (ft.)

6g. Screen length (if known): _____ (ft.)

For Internal Use ONLY:

WELL ABANDONMENT DETAILS

7a. Number of wells being abandoned: 1
For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

7b. Approximate volume of water remaining in well(s): 3.0 (gal.)

FOR WATER SUPPLY WELLS ONLY:

7c. Type of disinfectant used: _____

7d. Amount of disinfectant used: _____

7e. Sealing materials used (check all that apply):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Neat Cement Grout | <input type="checkbox"/> Bentonite Chips or Pellets |
| <input type="checkbox"/> Sand Cement Grout | <input type="checkbox"/> Dry Clay |
| <input type="checkbox"/> Concrete Grout | <input type="checkbox"/> Drill Cuttings |
| <input type="checkbox"/> Specialty Grout | <input type="checkbox"/> Gravel |
| <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Other (explain under 7g) |

7f. For each material selected above, provide amount of materials used:

6.5 GALLONS

7g. Provide a brief description of the abandonment procedure:

WELL ABANDONED VIA TREMIE PIPE WITH
PORTLAND BENTONITE SLURRY

PIEZOMETER

8. Certification:

Brian Thomas

03/17/14

Signature of Certified Well Contractor or Well Owner

Date

By signing this form, I hereby certify that the well(s) was (were) abandoned in accordance with 15A NCAC 02C .0100 or 2C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

9. Site diagram or additional well details:

You may use the back of this page to provide additional well site details or well abandonment details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

10a. **For All Wells:** Submit this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

10b. **For Injection Wells:** In addition to sending the form to the address in 10a above, also submit one copy of this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

10c. **For Water Supply & Injection Wells:** In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well abandonment to the county health department of the county where abandoned.

WELL ABANDONMENT RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

BRIAN THOMAS

Well Contractor Name (or well owner personally abandoning well on his/her property)

A - 2581

NC Well Contractor Certification Number

GEOLOGIC EXPLORATION, INC

Company Name

2. Well Construction Permit #:

List all applicable well construction permits (i.e. County, State, Variance, etc.) if known

3. Well use (check well use):

Water Supply Well:	
<input type="checkbox"/> Agricultural	<input type="checkbox"/> Municipal/Public
<input type="checkbox"/> Geothermal (Heating/Cooling Supply)	<input type="checkbox"/> Residential Water Supply (single)
<input type="checkbox"/> Industrial/Commercial	<input type="checkbox"/> Residential Water Supply (shared)
<input type="checkbox"/> Irrigation	
Non-Water Supply Well:	
<input type="checkbox"/> Monitoring	<input type="checkbox"/> Recovery
Injection Well:	
<input type="checkbox"/> Aquifer Recharge	<input type="checkbox"/> Groundwater Remediation
<input type="checkbox"/> Aquifer Storage and Recovery	<input type="checkbox"/> Salinity Barrier
<input type="checkbox"/> Aquifer Test	<input type="checkbox"/> Stormwater Drainage
<input type="checkbox"/> Experimental Technology	<input type="checkbox"/> Subsidence Control
<input type="checkbox"/> Geothermal (Closed Loop)	<input type="checkbox"/> Tracer
<input type="checkbox"/> Geothermal (Heating/Cooling Return)	<input type="checkbox"/> Other (explain under 7g)

4. Date well(s) abandoned: 03/14/14

5a. Well location:

WI HIGH POINT LANDFILL

Facility/Owner Name

Facility ID# (if applicable)

5830 RIVERDALE DRIVE JAMESTOWN 27282

Physical Address, City, and Zip

GUILFORD

County

Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

35° 57' 04.60" N 79° 56' 21.16" W

CONSTRUCTION DETAILS OF WELL(S) BEING ABANDONED

Attach well construction record(s) if available. For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

6a. Well ID#: P-26D

6b. Total well depth: 74.0 (ft.)

6c. Borehole diameter: 2.0 (in.)

6d. Water level below ground surface: 36.0 (ft.)

6e. Outer casing length (if known): _____ (ft.)

6f. Inner casing/tubing length (if known): _____ (ft.)

6g. Screen length (if known): _____ (ft.)

For Internal Use ONLY:

WELL ABANDONMENT DETAILS

7a. Number of wells being abandoned: 1
For multiple injection or non-water supply wells ONLY with the same construction/abandonment, you can submit one form.

7b. Approximate volume of water remaining in well(s): 6.0 (gal.)

FOR WATER SUPPLY WELLS ONLY:

7c. Type of disinfectant used: _____

7d. Amount of disinfectant used: _____

7e. Sealing materials used (check all that apply):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Neat Cement Grout | <input type="checkbox"/> Bentonite Chips or Pellets |
| <input type="checkbox"/> Sand Cement Grout | <input type="checkbox"/> Dry Clay |
| <input type="checkbox"/> Concrete Grout | <input type="checkbox"/> Drill Cuttings |
| <input type="checkbox"/> Specialty Grout | <input type="checkbox"/> Gravel |
| <input type="checkbox"/> Bentonite Slurry | <input type="checkbox"/> Other (explain under 7g) |

7f. For each material selected above, provide a amount of materials used:

12.0 GALLONS

7g. Provide a brief description of the abandonment procedure:

WELL ABANDONED VIA TREMIE PIPE WITH
PORTLAND BENTONITE SLURRY

PIEZOMETER

8. Certification:



03/17/14

Signature of Certified Well Contractor or Well Owner

Date

By signing this form, I hereby certify that the well(s) was (were) abandoned in accordance with 15A NCAC 02C .0100 or 2C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

9. Site diagram or additional well details:

You may use the back of this page to provide additional well site details or well abandonment details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

10a. **For All Wells:** Submit this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

10b. **For Injection Wells:** In addition to sending the form to the address in 10a above, also submit one copy of this form within 30 days of completion of well abandonment to the following:

Division of Water Quality, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

10c. **For Water Supply & Injection Wells:** In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well abandonment to the county health department of the county where abandoned.

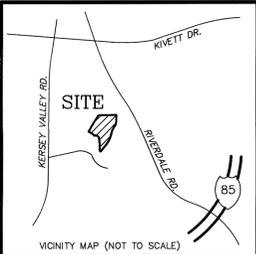
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Appendix D

Record Drawings

**Construction Quality Assurance Report
WI High Point Landfill, LLC – Phase 2B-1 Construction
High Point, North Carolina**

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I, DWAYNE R. KROEZE, HEREBY CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION, THAT THE ELEVATIONS REPRESENTED BY ANY CONTOUR LINE AS PLOTTED DO NOT HAVE A VERTICAL ERROR GREATER THAN 0.5' OVER 90% OF THE AREA COVERED. ALL LOCATIONS SHOWN ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DWAYNE R. KROEZE, P.L.S. L-3911 DATE 6/17/2014

PLAN REFERENCE
 WI HIGH POINT LANDFILL, LLC,
 HIGH POINT, NORTH CAROLINA
 PHASE 2B-1
 CONSTRUCTION DRAWINGS
 DATED APRIL 2014 BY
 SMITH + GARDNER

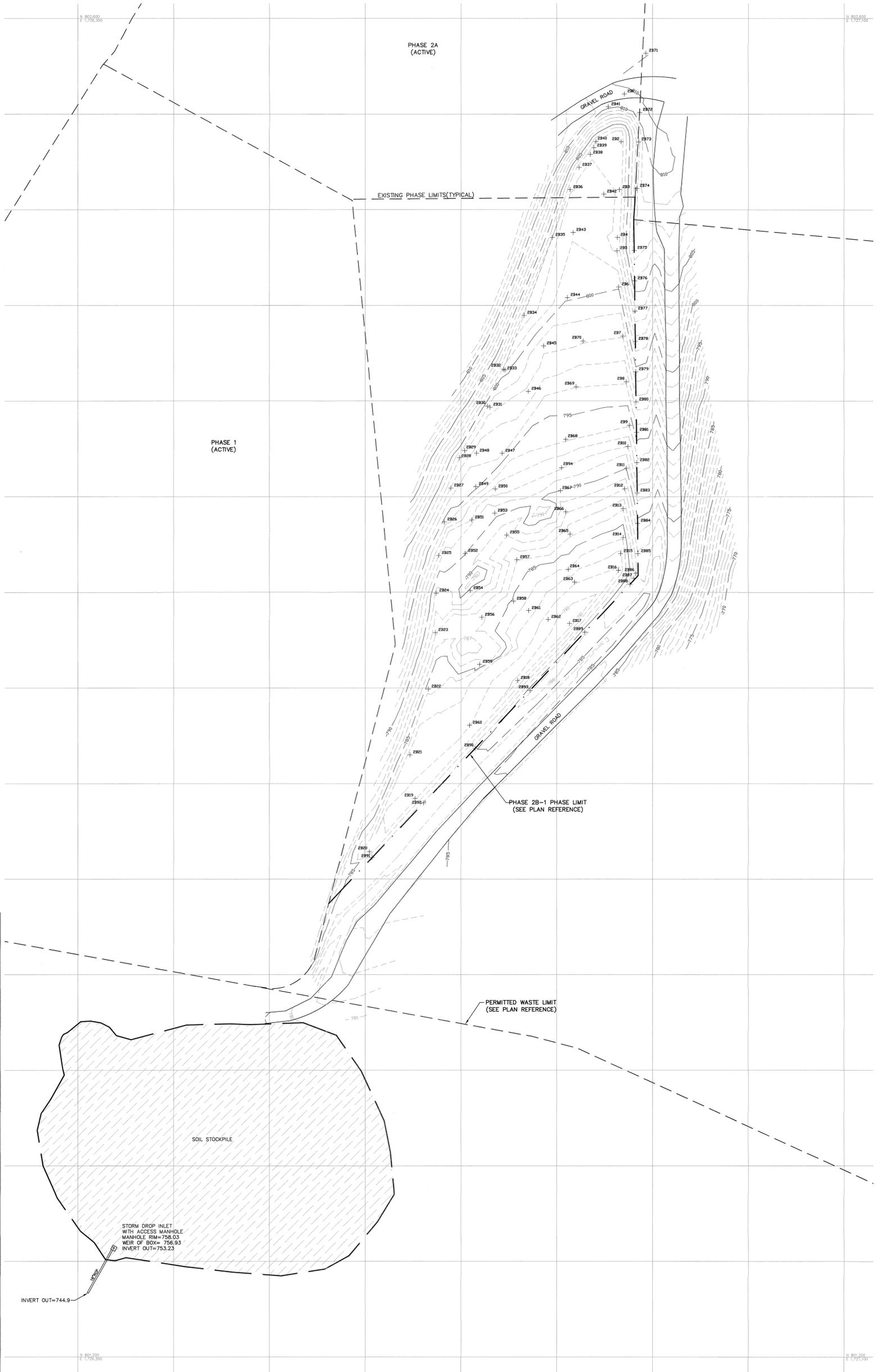


LEGEND
 -100- INDEX CONTOUR
 - INTERMEDIATE CONTOUR
 +2B1 BASE GRADE REFERENCE POINT

NOTES
 1. ELEVATIONS SHOWN ARE NAVD 88.
 2. COORDINATES SHOWN ARE NAD 83 (2007) LOCALIZED TO EXISTING SURVEY CONTROL PROVIDED BY THE CLIENT.

BASE GRADE POINT REFERENCE CHART

BASE GRADE REFERENCE NUMBER	NORTHING	EASTING	DESIGN ELEVATION	SURVEYED ELEVATION	DIFFERENCE
2B1	802521.01	1726870.50	802.00	810.17	8.17
2B2	802471.01	1726867.19	802.00	802.35	0.35
2B3	802421.01	1726865.31	802.00	802.22	0.22
2B4	802371.01	1726863.43	802.00	802.27	0.27
2B5	802327.24	1726862.91	802.00	802.12	0.12
2B6	802319.31	1726864.55	800.00	800.08	0.08
2B7	802267.88	1726868.92	798.00	798.05	0.05
2B8	802220.04	1726872.56	796.00	796.09	0.09
2B9	802174.55	1726875.73	794.00	794.11	0.11
2B10	802152.57	1726874.15	792.00	792.02	0.02
2B11	802129.77	1726872.74	790.00	790.02	0.02
2B12	802108.37	1726871.05	788.00	788.00	0.00
2B13	802087.51	1726869.24	786.00	786.07	0.07
2B14	802057.29	1726869.33	784.00	784.10	0.10
2B15	802040.43	1726866.72	782.00	782.72	0.72
2B16	802022.85	1726864.47	780.00	781.80	1.80
2B17	801967.40	1726813.28	780.00	780.02	0.02
2B18	801907.86	1726759.20	780.00	780.76	0.76
2B19	801784.31	1726652.22	781.00	781.74	0.74
2B20	801728.54	1726604.46	782.00	782.14	0.14
2B21	801829.89	1726646.73	782.00	782.38	0.38
2B22	801898.78	1726665.94	784.00	784.28	0.28
2B23	801957.94	1726673.26	786.00	787.23	1.23
2B24	801999.18	1726674.16	788.00	788.64	0.64
2B25	802038.36	1726676.77	790.00	792.00	2.00
2B26	802073.47	1726682.48	792.00	794.68	2.68
2B27	802109.01	1726689.52	794.00	796.93	2.93
2B28	802140.70	1726698.55	796.00	797.98	1.98
2B29	802148.26	1726703.82	796.00	798.27	2.27
2B30	802194.54	1726727.65	798.00	799.11	1.11
2B31	802193.42	1726730.48	798.00	798.38	0.38
2B32	802233.13	1726744.33	800.00	800.72	0.72
2B33	802232.45	1726745.94	800.00	800.42	0.42
2B34	802289.70	1726766.00	802.00	802.83	0.83
2B35	802371.01	1726795.43	802.00	803.07	1.07
2B36	802421.01	1726813.83	802.00	802.09	0.09
2B37	802444.18	1726823.41	802.00	802.12	0.12
2B38	802457.93	1726835.08	802.00	802.09	0.09
2B39	802464.77	1726838.83	802.00	802.34	0.34
2B40	802471.01	1726841.00	802.00	802.88	0.88
2B41	802507.58	1726853.70	802.00	810.40	8.40
2B42	802416.31	1726849.19	801.00	801.39	0.39
2B43	802376.21	1726817.30	801.00	801.13	0.13
2B44	802308.23	1726811.19	800.00	800.16	0.16
2B45	802257.61	1726786.35	798.00	798.18	0.18
2B46	802210.17	1726770.47	796.00	797.71	1.71
2B47	802145.35	1726743.03	794.00	796.14	2.14
2B48	802145.44	1726716.30	796.00	796.37	0.37
2B49	802110.55	1726715.44	794.00	795.39	1.39
2B50	802108.08	1726735.87	792.00	792.63	0.63
2B51	802075.64	1726711.35	792.00	792.02	0.02
2B52	802040.67	1726704.46	790.00	790.03	0.03
2B53	802082.80	1726735.16	790.00	790.37	0.37
2B54	802001.69	1726709.75	788.00	789.55	1.55
2B55	802059.88	1726747.79	788.00	788.05	0.05
2B56	801973.91	1726721.79	786.00	786.18	0.18
2B57	802034.12	1726758.53	786.00	786.04	0.04
2B58	801990.70	1726754.92	784.00	784.75	0.75



SURVEYING SOLUTIONS, P.C. C-1948
 295 KINGFISHER WAY P.O. BOX 376
 LOUISBURG, NC 27549
 (919)-340-2250

AS-BUILT SURVEY OF
PHASE 2B-1
WI HIGH POINT LANDFILL, LLC.
 5830 RIVERDALE ROAD, JAMESTOWN, NC

JAMESTOWN GUILFORD COUNTY NORTH CAROLINA
 SCALE 1"=50' SURVEY DATE: JUNE 12, 2014 PROJECT 14-016



July 31, 2014

Ms. Pat Backus, P.E.
Environmental Engineer
NC DENR - Division of Waste Management
217 W. Jones Street
Raleigh, North Carolina 27603

RE: **Landfill Capacity**
WI High Point, LLC
NC Solid Permit No. 41-16

Dear Pat:

On behalf of Waste Industries, Smith Gardner, Inc. (S+G) is pleased to respond to email comments received on July 28, 2014 (**attached**). We understand that the previous volume capacity table in earlier permits appeared to be inconsistent. During the permit renewal, S+G referenced previous areas and capacities prepared by Golder Associates NC, Inc.¹ S+G has since performed an updated capacity study for the site which is reflected in **Table 1** (below). The respective phase and sub-phase volumes were calculated by direct (layer to layer) comparison within AutoCAD from subgrade to top-of-waste to generate a NET capacity as shown in **Figures 1-8** (attached). *The "Fill Volume" (or NET capacity) is identified in the upper right-hand corner of each figure.* An adjustment is made to reflect a two (2) foot thick final cover² to calculated GROSS capacity.

Table 1: Landfill Capacity by Phase

Phase	Area (AC)	Gross Capacity (CY)	Net Capacity (CY)	Status	Life (Years) ¹
1	12.5	788,083	-	Constructed	Filled
2A	4.3	240,140	-	Constructed	Filled
2B-1 ²	3.6	481,397	425,074	Constructed	2.4
2B-2 ³	1.5	213,136	208,296	Future	1.2
3	6.5	744,681	723,708	Future	4.0
4	5.6	728,676	710,607	Future	4.0
5	8.5	757,216	729,789	Future	4.1
6	3.6	820,639	809,023	Future	4.5
Total	46.1	4,773,968	3,606,497		20.2

Notes:

1. Phase life expectancies are calculated using the permitted annual waste disposal rate of 98,600 tons per year and a waste-plus-cover density factor of 0.55 tons per cubic yard that includes waste and intermediate
2. Phase 2B-1 capacities include waste that was inadvertently placed in the northwest corner prior to construction.
3. Phase 2B-2 capacities determined by deduction of construction of Phase 2B-1 and airspace consumed (61,644 CY) between February 6, 2013 and January 14, 2014.

¹ Facility Plan for the WCA of High Point C&D Landfill prepared by Golder Associates NC, Inc. dated August 2008.

² Alternate Final Cover System Detail on DWG. EP-7 in the Engineering Plan for the WCA of High Point C&D Landfill prepared by Golder Associates NC, Inc. dated March 2007. Final cover is assumed to be placed over the entirety of each phase in order to keep Gross Capacity calculations uniform throughout.

In response to your specific questions, please see our responses below:

Comment: Phase 2A and Phase 2B in the 2014 permit were each stated as 4.7 acres for a total of 9.4 acres as indicted in the 2009 application.

Response: We agree that Phase 2 is 9.4 acres as a whole. However, our calculations show Phase 2A is 4.3 acres and Phase 2B is 5.1 acres.

Comment: The CQA report for phase 2A indicated that 4.3 acres were constructed.

Response: At the time of Phase 2B-1 construction, it was our understanding that the southeast corner of Phase 2A was not constructed and subsequently we included under the Phase 2B-1 project.

Comment: The CQA report for phase 2B-1 indicated that 4 acres were constructed and the total constructed was 20 acres. In order to total 20 acres (also used for the FA calculation) the constructed acres would have to be 3.4. That would leave 1.7 acres for Phase 2B-2.

Response: The CQA report certifies 2.63 acres within 2B. However, a previous partial certification³ of 2B was similarly performed in July 2013 that included one (1) acre. This would total approximately 3.6 acres that have been constructed within Phase 2B (referred as Phase 2B-1). Lastly, approximately 0.25 acres of Phase 2A (the southeastern corner) were also certified as a part of the project. The reference to four (4) acres was only considered nominal.

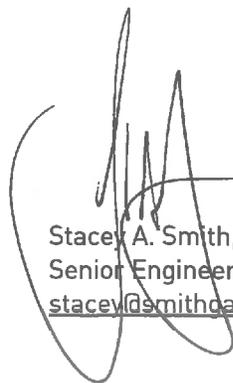
To date, the total constructed area is 20.4 acres as assumed in the financial assurance calculations.

Should you have any questions or require additional information, please contact us at (919) 828-0577 or by email below.

Sincerely,
SMITH GARDNER, INC.



Carter T. Shore, E.I.
Staff Engineer, ext. 142
carter@smithgardnerinc.com



Stacey A. Smith, P.E.
Senior Engineer, ext. 142
stacey@smithgardnerinc.com



cts/sas
Att.

Cc: Hugh Jernigan, NCDENR
David Pepper, Waste Industries
John Barnard, P.E., Waste Industries
Roger Marcum, WI High Point Landfill
File

³ Letter from Jeryl Covington [S+G] to Ed Mussler [NC DENR] dated July 17, 2013.



Carter Shore <carter@smithgardnerinc.com>

Permit 4118-CDLF-2012 High Point C&D Debris Landfill

2 messages

Backus, Pat <pat.backus@ncdenr.gov>

Mon, Jul 28, 2014 at 10:07 AM

To: "carter@smithgardnerinc.com" <carter@smithgardnerinc.com>

Cc: "Stacey Smith, (Smith Gardner)" <stacey@smithgardnerinc.com>

Carter,

In preparing the permit to operate to include the newly constructed Phase 2B-1, I noticed that the capacity table in the last permit was incorrect.

The last capacity table that I could find in an approved application was in DIN 6646 - see the attached file with 20090220 in the file name. The capacity table from the last permit is in DIN 20297 – see attached file with 01-16-2014 in the filename. The capacity table in the permit stated the net capacity for C&D rather than the gross capacity.

I would like to correct the chart for the permit and need your input. I need the capacity for Phase 2 shown as what has been constructed and what remains.

What I have found is confusing. Phase 2A and Phase 2B in the 2014 permit were each stated as 4.7 acres for a total of 9.4 acres as indicted in the 2009 application. The CQA report for phase 2A indicated that 4.3 acres were constructed (see attached file with 04-14-2010 in the filename.) The CQA report for phase 2B-1 indicated (DIN 201326) indicated that 4 acres were constructed and the total constructed was 20 acres. In order to total 20 acres (also used for the FA calculation) the constructed acres would have to be 3.4. That would leave 1.7 acres for Phase 2B-2. The total gross capacity for Phase 2 is 965,412 cubic yards. I could not find a breakdown of the cubic yards added with each addition of Phase 2.

I believe the easiest way to get this corrected is for you to provide a capacity chart that can be inserted in the CQA report .

Phase	Area	Gross Capacity	Status
1	12.5	767,000	Constructed/ Filled?
2A	4.3		Constructed/ Filled?

2B-1	3.4		Constructed
2B-2	1.7		Future
3	6.5	563,690	Future
4	5.6	894,022	Future
5	8.5	702,871	Future
6	3.6	923830	Future
Total	46.1	4,816,525	

Please remember that the letter issued on June 20 (DIN 213387) was a temporary approval to operate. Otherwise, the draft permit is ready to be sent to Ed Mussler for his signature. Please provided the updated capacity soon.

Thanks,

Pat



Patricia M. (Pat) Backus, P.E.

NC Department of Environment and Natural Resources

Division of Waste Management - Solid Waste Section

Office Location: 217 W. Jones St.

Mail & Delivery: 1646 Mail Service Center

Raleigh, NC 27699-1646

Telephone & Fax: (919) 707-8257

pat.backus@ncdenr.gov

<http://portal.ncdenr.org/w eb/w m/sw>

Volume

Base Surface JOYCE-PH1 BASE GRADES
Comparison Surface JOYCE-PH1 TOW GRADES

Cut volume (unadjusted) 5.37 Cu. Yd.
Fill volume (unadjusted) 770,082.21 Cu. Yd.
Net volume (unadjusted) 770,076.85 Cu. Yd.<Fill>

Additional Cut (6.9 AC of Final Cover included in AutoCAD calc, see Fig. 4): (22,332) CY

Net Capacity: 747,750 CY

Adjusted for 2' Final Cover at 12.5 AC = 40,833 CY.

Gross Capacity = 788,083 CY

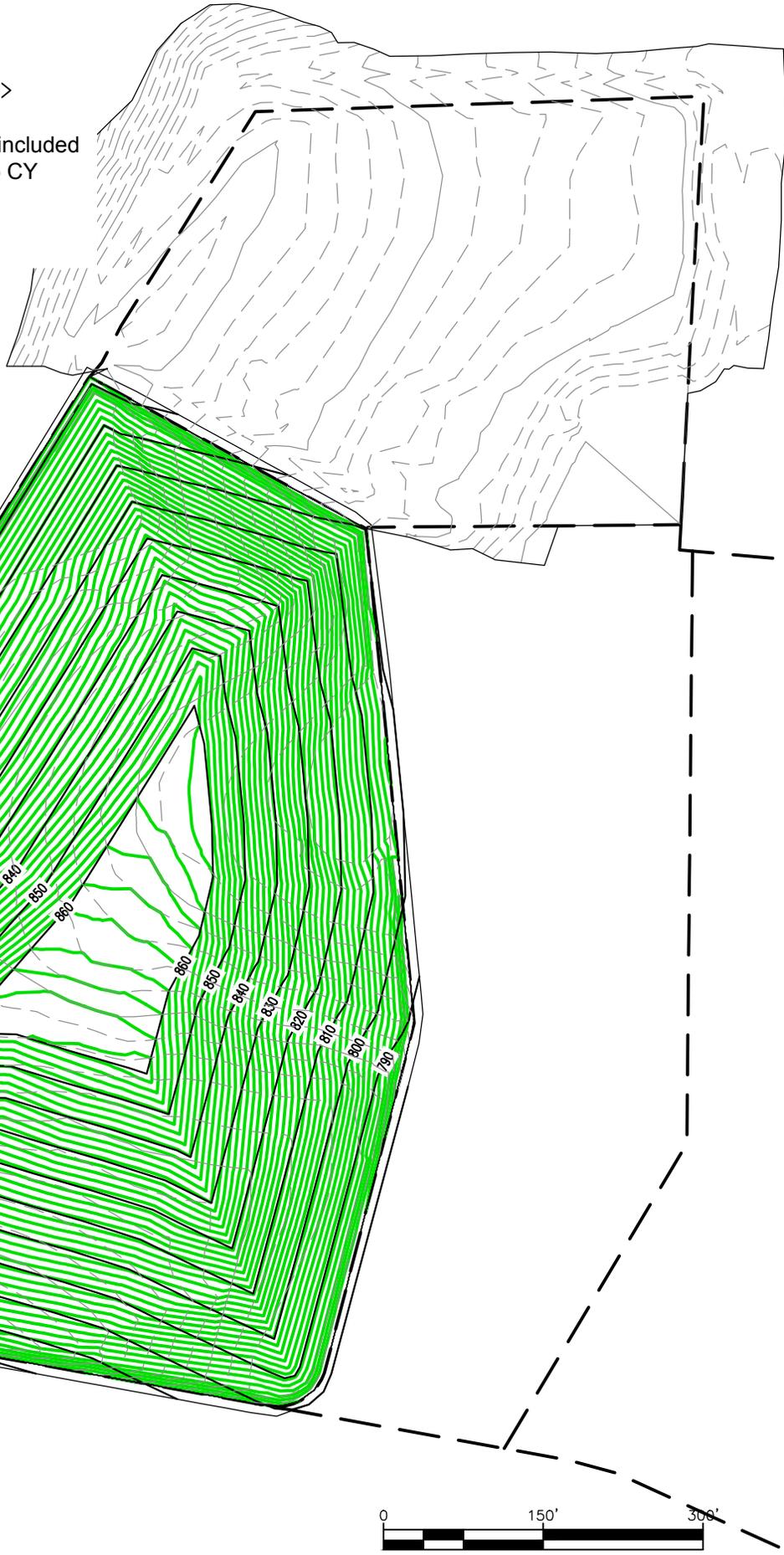


Fig. 1 Phase 1 Airspace

Fig. 2 Phase 2A Airspace

Base Surface PH1-2A BASE COMPOSITE_PH1 TOW PASTE
Comparison Surface PH1-2A TOW

Cut volume (unadjusted) 919.58 Cu. Yd.
Fill volume (unadjusted) 226,264.54 Cu. Yd.
Net volume (unadjusted) 225,344.96 Cu. Yd.<Fill>

Adjusted for 2' Final Cover at
4.3 AC = 13,874 CY.
Gross Capacity = 240,140 CY

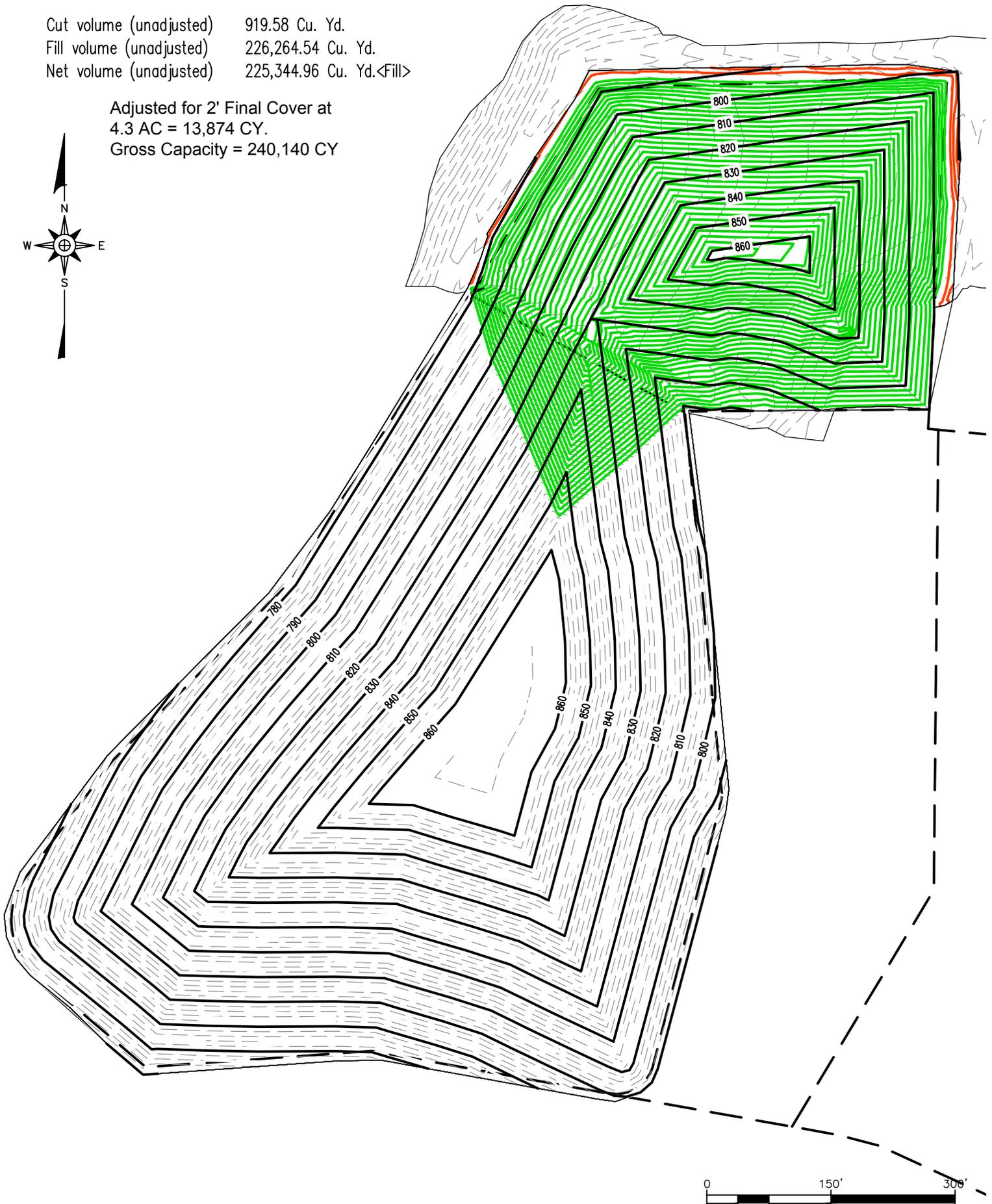


Fig. 3 Phase 2B-1 Airspace

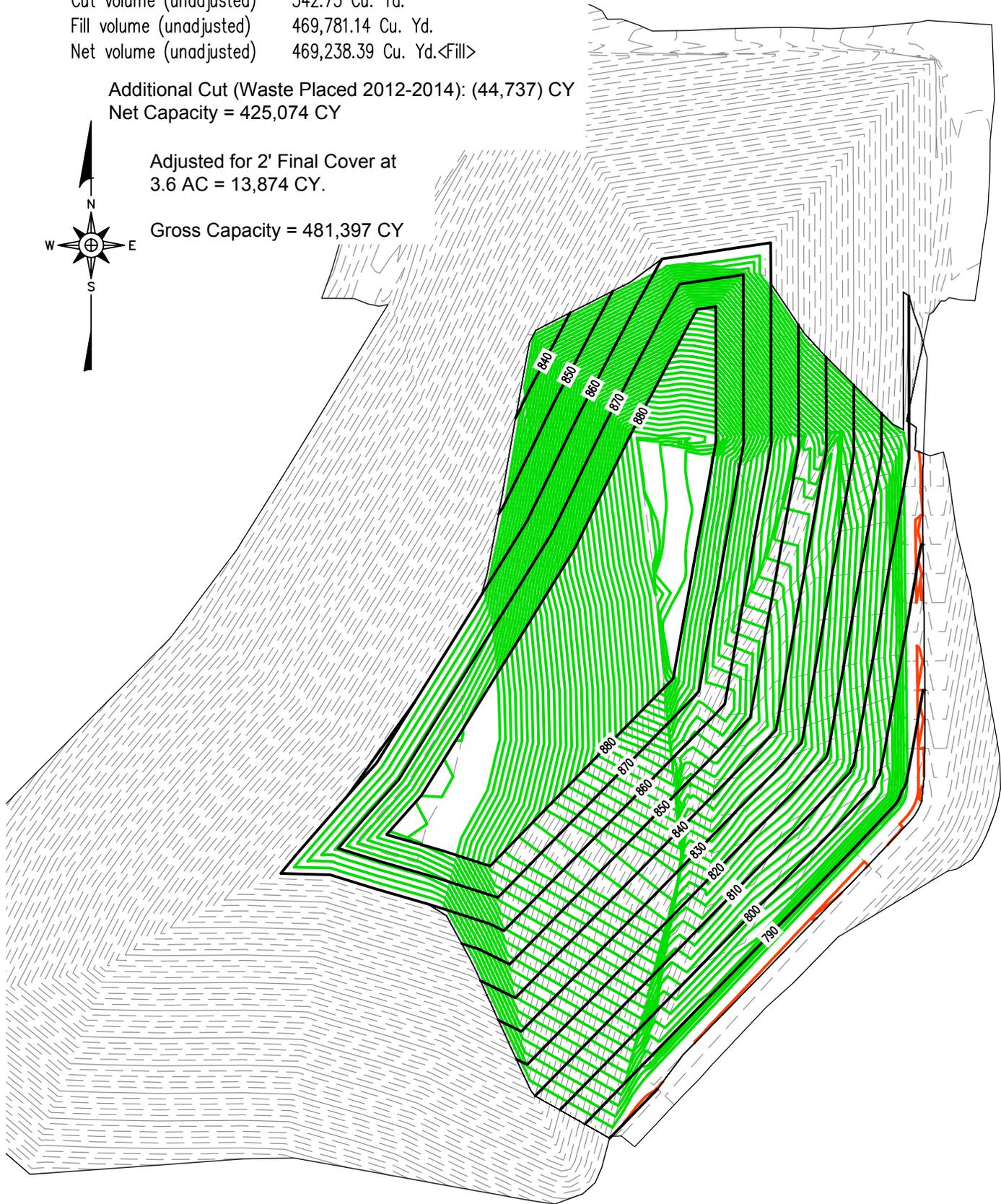
Base Surface PH1-2B BASE COMPOSITE
Comparison Surface PH2B-1 TOW

Cut volume (unadjusted) 542.75 Cu. Yd.
Fill volume (unadjusted) 469,781.14 Cu. Yd.
Net volume (unadjusted) 469,238.39 Cu. Yd.<Fill>

Additional Cut (Waste Placed 2012-2014): (44,737) CY
Net Capacity = 425,074 CY

Adjusted for 2' Final Cover at
3.6 AC = 13,874 CY.

Gross Capacity = 481,397 CY



Volume

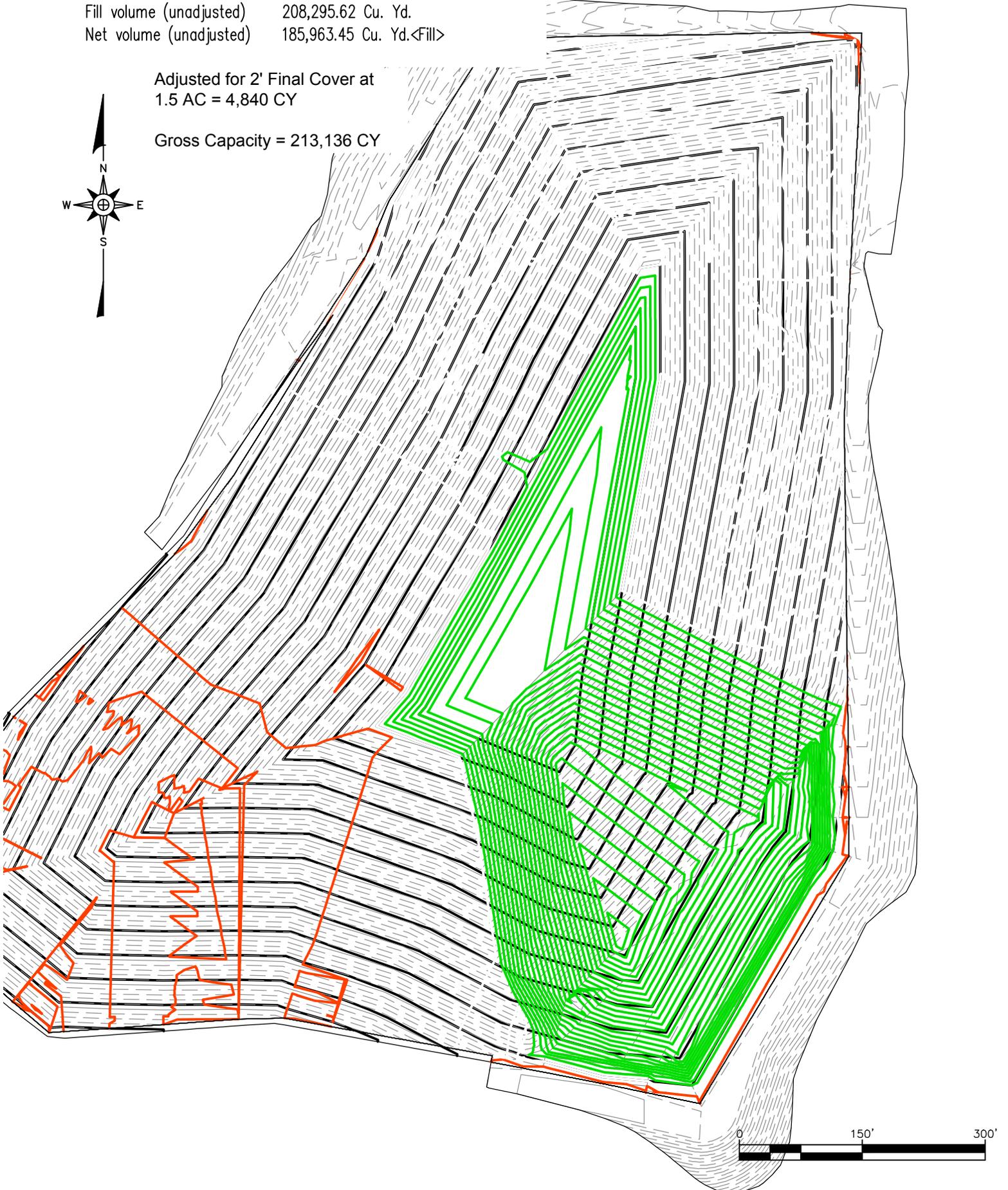
Base Surface PH1-2B_2 BASE COMPOSITE
Comparison Surface PH2 TOW (FCVR -2FT)

Fig. 4 Phase 2B-2 Airspace

Cut volume (unadjusted) 22,332.17 Cu. Yd. (6.9 AC of Final Cover included in AutoCAD Fill calc for Phase 1)
Fill volume (unadjusted) 208,295.62 Cu. Yd.
Net volume (unadjusted) 185,963.45 Cu. Yd.<Fill>

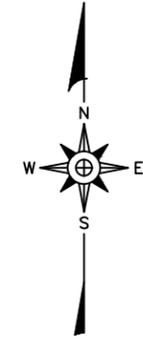
Adjusted for 2' Final Cover at
1.5 AC = 4,840 CY

Gross Capacity = 213,136 CY



PHASE 3 AIRSPACE

PROPERTY LINE



PHASE 2A

PHASE 1

PHASE 2B

PHASE 3

PHASE 4

PHASE 6

PHASE 5

PERMITTED WASTE LIMITS

Volume

Base Surface PH1-6 COMPOSITE SGRD_PH2A-B TOW PASTE
 Comparison Surface PHASE 3 TOW

Cut volume (unadjusted) 82.24 Cu. Yd.
 Fill volume (unadjusted) 723,708.11 Cu. Yd.
 Net volume (unadjusted) 723,625.86 Cu. Yd.<Fill>

Adjusted for 2' Final Cover at
 6.5 AC = 20,973 CY

Total = 744,681 CY

REFERENCE:

1. FACILITY PROPERTY LINE REFERENCE: SURVEY BY MARK TERRY AND ASSOCIATES, INC., DATED MAY 15, 2001.



PREPARED BY: NC LIC. NO. C-0828 (ENGINEERING)

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

FIGURE NO.

5

SCALE:

AS SHOWN

APPROVED:

T. B. M.

DRAWN:

C. T. J.

PROJECT NO:

WCAHPFAS 13-1

DATE:

Jul 2014

FILENAME:

WI-B0956

HIGH POINT LANDFILL, LLC
 HIGH POINT C&D LANDFILL
 REMAINING CAPACITY REPORT

PREPARED FOR:

PHASE 4 AIRSPACE

PROPERTY LINE



PHASE 2A

Volume

Base Surface PH1-6 COMPOSITE SGRD_PH3 TOW PASTE
 Comparison Surface PHASE 4 TOW

Cut volume (unadjusted) 27.97 Cu. Yd.
 Fill volume (unadjusted) 710,606.60 Cu. Yd.
 Net volume (unadjusted) 710,578.63 Cu. Yd.<Fill>

Adjusted for 2' Final Cover at
 5.6 AC = 18,069 CY

Total = 728,676 CY

PHASE 1

PHASE 2B

PHASE 6

PHASE 3

PHASE 4

PHASE 5

PERMITTED WASTE LIMITS

REFERENCE:

1. FACILITY PROPERTY LINE REFERENCE: SURVEY BY MARK TERRY AND ASSOCIATES, INC., DATED MAY 15, 2001.



PREPARED BY: _____ NC LIC. NO. C-0828 (ENGINEERING)

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

DRAWN: C.T.J. APPROVED: T.B.M. SCALE: AS SHOWN FIGURE NO: 6

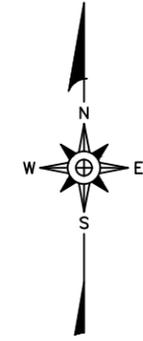
DATE: Jul 2014 PROJECT NO: WCAHPFAS 13-1 FILENAME: WI-B0956

HIGH POINT LANDFILL, LLC
 HIGH POINT C&D LANDFILL
 REMAINING CAPACITY REPORT

PREPARED FOR:

PHASE 5 AIRSPACE

PROPERTY LINE



PHASE 2A

Volume

Base Surface PH1-6 COMPOSITE SGRD_PH4 TOW PASTE
Comparison Surface PHASE 5 TOW

Cut volume (unadjusted) 140.02 Cu. Yd.
Fill volume (unadjusted) 729,788.59 Cu. Yd.
Net volume (unadjusted) 729,648.56 Cu. Yd.<Fill>

Adjusted for 2' Final Cover at
8.5 AC = 27,427 CY

Total = 757,216 CY

PHASE 1

PHASE 2B

PHASE 6

PHASE 3

PHASE 4

PHASE 5

PERMITTED WASTE LIMITS

REFERENCE:
1. FACILITY PROPERTY LINE REFERENCE: SURVEY BY MARK TERRY AND ASSOCIATES, INC., DATED MAY 15, 2001.



PREPARED BY: NC LIC. NO. C-0828 (ENGINEERING)

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

FIGURE NO:	7
SCALE:	AS SHOWN
APPROVED:	T.B.M.
PROJECT NO:	WCAHPFAS 13-1
DRAWN:	C.T.J.
DATE:	Jul 2014
FILENAME:	WI-B0956

HIGH POINT LANDFILL, LLC
HIGH POINT C&D LANDFILL
REMAINING CAPACITY REPORT

PREPARED FOR:

PHASE 6 AIRSPACE

PROPERTY LINE



PHASE 2A

PHASE 1

PHASE 2B

PHASE 3

PHASE 4

PHASE 6

PHASE 5

PERMITTED WASTE LIMITS

Volume

Base Surface PH1-6 COMPOSITE SGRD_PH5 TOW PASTE
 Comparison Surface PHASE 6 TOW

Cut volume (unadjusted) 63.69 Cu. Yd.
 Fill volume (unadjusted) 809,022.95 Cu. Yd.
 Net volume (unadjusted) 808,959.25 Cu. Yd.<Fill>

Adjusted for 2' Final Cover at
 3.6 AC = 11,616 CY
 Total = 820,639 CY

REFERENCE:

1. FACILITY PROPERTY LINE REFERENCE: SURVEY BY MARK TERRY AND ASSOCIATES, INC., DATED MAY 15, 2001.



PREPARED BY: _____ NC LIC. NO. C-0828 (ENGINEERING)

SMITH+GARDNER

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

FIGURE NO:	8
SCALE:	AS SHOWN
APPROVED:	T.B.M.
DRAWN:	C.T.J.
PROJECT NO:	WCAHPFAS 13-1
DATE:	Jul 2014
FILENAME:	WI-B0956

HIGH POINT LANDFILL, LLC
 HIGH POINT C&D LANDFILL
 REMAINING CAPACITY REPORT

PREPARED FOR: