DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Altamont Environmental, Inc. (Consultant)

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Andrew Moore Phone: (828) 281-3350

E-mail: amoore@altamontenvironmental.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Duke Energy Carolinas Belews Creek Steam Station Pine Hall Road Ash Landfill	3195 Pine Hall Road Belews Creek, NC	85-03	.0500	April 19-20, 2011

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Stuart A. Ryman P.G. (828) 281-3350

Facility Representative Name (Print) Title (Area Code) Telephone Number

Signature 6.17.11 Date

Affix NC Licensed/Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1061 GEOLOGIST STUART A. RYMAN

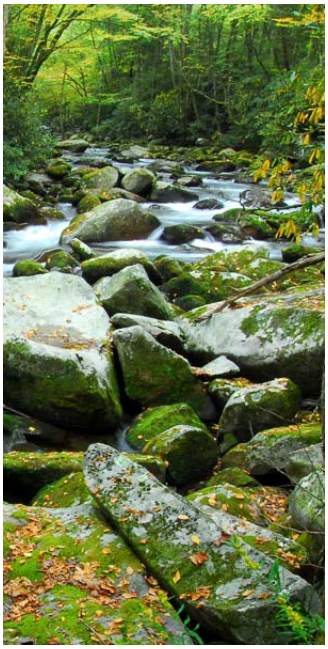
231 Haywood Street Asheville, NC 28801

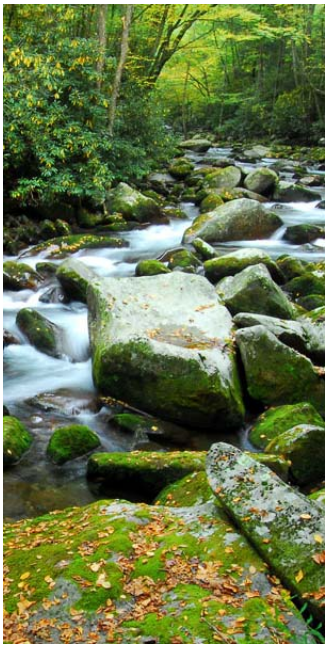
Facility Representative Address

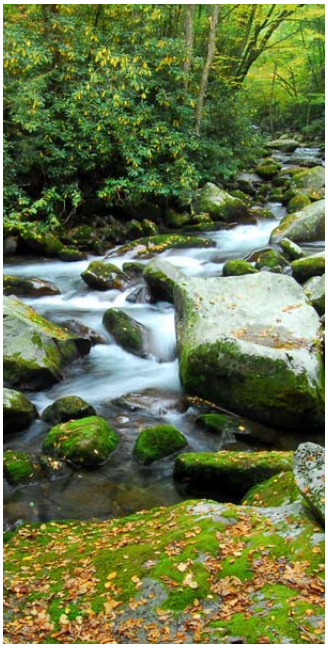
C-2185

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009







ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY

Project Number 2369.04

Semiannual Groundwater Monitoring Report

Belews Creek Steam Station

Pine Hall Road Ash Landfill, Permit #85-03

April 2011 Sampling Event

June 17, 2011

Prepared for
Duke Energy Carolinas
3195 Pine Hall Road
Belews Creek, NC 27042

Prepared by
Altamont Environmental, Inc.
231 Haywood Street
Asheville, NC 28801
(828) 281-3350

Semiannual Groundwater Monitoring Report

Belews Creek Steam Station

Pine Hall Road Ash Landfill, Permit #85-03

April 2011 Sampling Event

June 17, 2011

Professional Certification

On behalf of Altamont Environmental, Inc., a firm licensed to practice both engineering (certification number C-2185) and geology (certification number C-299) in the State of North Carolina, I do hereby certify that the information contained in this report is correct and accurate to the best of my knowledge.

Stuart A. Ryman, P.G.

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A. Chain-of-Custody Forms

1.0 Background

The Pine Hall Road Ash Landfill is located at the Duke Energy Carolinas (Duke) Belews Creek Steam Station, in Stokes County, North Carolina. The landfill is permitted under the North Carolina Department of Environment and Natural Resources (DENR) Solid Waste Permit #85-03 and was closed in December 2008. The ash landfill was permitted to accept only fly ash from Belews Creek Steam Station operations.

The landfill was originally permitted in 1983. The original landfill was unlined and was permitted with a soil cap one foot thick on the side slopes and two feet thick on flatter areas. A subsequent expansion (Phase I Expansion) was permitted in 2003. This phase was also unlined, but was permitted with a synthetic cap system to be applied at closure.

After groundwater exceedances were observed in wells installed near the landfill, the placement of additional ash in the Phase I Expansion was halted. The closure design was changed to utilize an engineered, synthetic cover system for the entire landfill, both the original landfill and the Phase 1 Expansion. The construction of the synthetic cover system was completed in December 2008.

The ash landfill and nearby surrounding area are portrayed on Figure 1. The ash landfill is located to the north of the surface water divide that runs along Pine Hall Road and to the east of a surface water divide that runs along Middleton Loop Road. These surface water divides appear to mimic the shallow groundwater divides for the area near the landfill. Two surface water features are located in the area of the landfill. One is an ephemeral stream along a surface water drainage feature originating along the eastern side of the landfill. The second is a small stream located in a surface water drainage feature beginning north of Pine Hall Road that roughly parallels the western side of the landfill. Both these features drain to the north and into the Ash Basin. Groundwater flow beneath the landfill is from Pine Hall Road, generally northward, toward the Ash Basin. The Ash Basin is operated as a water treatment facility and is permitted by the National Pollutant Discharge Elimination System (NPDES) program (NPDES Permit #NC0024406).

The monitoring system at the site consists of the following sample locations:

Monitoring Wells:		Surface Water Sample Locations:
MW-1	MW-1D	SW-1A
MW-2	MW-3	SW-2
MW-4	MW-5	
MW-6	MW-7	
MW2-7	MW2-9	
OB-4	OB-5	
OB-9		

The locations of the monitoring wells and surface water sample locations are shown on Figure 2. Monitoring well MW-3 is defined by the *Groundwater Monitoring, Sampling and Analysis Plan* (SAP) for the Pine Hall Road Ash Landfill dated November 1, 2008, to represent "background" groundwater quality. MW-1D extends into fractured bedrock. Surface water sample location SW-1A is located in the ephemeral stream east of the landfill, and location SW-2 is located in the stream west of the landfill.

The sampling was conducted by Duke according to North Carolina Solid Waste Management Guidelines. The constituents sampled and analyzed for were selected by Duke and DENR Division of Solid Waste and are listed in the SAP. The samples were analyzed by a North Carolina certified laboratory.

In addition to the permit required constituents listed in the SAP, the groundwater samples were also analyzed for Part 40 Code of Federal Regulations (CFR) Appendix I constituents. Appendix I sampling and analysis was performed as part of the requirements contained in the Closure Plan Approval letter dated December 7, 2007, Document ID RC03425. Condition 11 of that document states:

> *Ground-water and surface water samples should be analyzed for Appendix I constituents in addition to currently analyzed constituents semi-annually. Appendix I analytical data will be evaluated, and based on results, the compliance Branch of the SWS may not require continued Appendix I analysis.*

2.0 Methods

2.1 Sampling and Analysis Methods

Groundwater sampling and documentation of sampling activities were performed by Duke personnel. The groundwater samples were analyzed by Duke Energy Analytical Laboratory (North Carolina Laboratory Certification #248).

The groundwater samples were analyzed for the following constituents and/or parameters:

- Thirteen metals using U.S. Environmental Protection Agency (EPA) Method 200.7 and 200.8
- Mercury using EPA Method 7470
- Chloride, Fluoride, Nitrate as Nitrogen, and Sulfate using EPA Method 300.0
- Total Dissolved Solids using Standard Method (SM) 2540C
- Appendix I Volatile Organic Compounds (VOCs) using EPA Method 8260

2.2 Statement of Work

Altamont Environmental Inc. (Altamont) completed the following tasks:

- Received field sampling information provided by Duke for monitoring wells MW-1, MW-1D, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW2-7, MW2-9, OB-4, OB-5, and OB-9 and surface water sampling locations SW-1A and SW-2. The samples were collected by Duke personnel on April 19-20, 2011 and Altamont received the data on May 19, 2011.
- Reviewed the laboratory analytical results for samples. The Electronic Data Deliverable (EDD), provided by Duke, was adapted to conform to the format requirements of the DENR EDD template. Altamont added an italicized J data qualifier to indicate a detected concentration that is greater than the laboratory's method detection limit (MDL), but less than the Solid Waste Section Limit (SWSL). A copy of the original EDD is retained in Altamont's files.
- Developed a groundwater surface contour map using map data and groundwater elevation data supplied by Duke.
- Prepared this Semiannual Groundwater Monitoring Report and submitted it to Duke and to DENR.

3.0 Results

3.1 Site Groundwater Flow

Generalized groundwater surface contours for the site are shown on Figure 3. These contours were developed using the measured groundwater elevations in the wells from April 19 and 20, 2011.

Pine Hall Road is located along a topographic high and appears to be a groundwater divide. Groundwater flow at the site is from areas of higher topography along Pine Hall Road, generally northward, toward the Ash Basin.

3.2 Analytical Results

A summary of the field data is presented in Table 1. The results of the laboratory analyses for semiannual constituents are summarized in Table 2. The results of the Appendix I analyses can be found in Table 3. The chain-of-custody forms can be found in Appendix A.

The following sections provide a preliminary discussion of the North Carolina Administrative Code (NCAC) 2L groundwater quality standards (2L Standards). The following monitoring wells are located inside of the Ash Landfill Review Boundary: MW-1D, MW-2, MW-4, MW-7, MW2-7, OB-4, OB-5, and OB-9. No evaluation of historic data was performed for these wells.

3.2.1 Semiannual Constituents—Monitoring Wells

Results from the monitoring wells for the semiannual constituents met the corresponding 2L standards with the exceptions noted below:

- Field pH values below 6.5 were measured in wells MW-1, MW-1D, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW2-7, MW2-9, OB-5, and OB-9. The measured pH values below 6.5 ranged from 4.7 (Standard Units) in MW-1 to 6.3 in MW-1D. The pH values measured at MW-1, MW-3, MW-5, MW-6, and MW2-9 are consistent with historic readings at the site.

  Monitoring well MW-3 is considered the background well and should not be impacted by the landfill. The field pH value in MW-3 is 5.2. Therefore, this value should be considered the background pH for the site. The other wells' pHs are similar in magnitude and are within historic readings at the site.

- Arsenic was measured above the 2L standard of 10 micrograms per liter (µg/L) in OB-4 at 58.5 µg/L. OB-4 is located within the Ash Landfill Review Boundary.

- Boron was measured above the 2L standard of 700 µg/L in MW-7 at 1,739 µg/L, in MW2-7 at 20,329 µg/L, in MW2-9 at 1,336 µg/L, in OB-4 at 35,747 µg/L, and in OB-9 at 28,983 µg/L. Monitoring wells MW-7, MW2-7, OB-4, and OB-9 are within the Ash Landfill Review Boundary. MW2-9 is approximately 65 feet outside of the Ash Landfill Review Boundary and is located within the Ash Basin Compliance Boundary. Groundwater and surface water flow in the area of MW2-9 is expected to flow toward the Ash Basin. The boron concentration in MW2-9 decreased from the October 2005 sampling event and is the lowest since the April 2007 sampling event.

- Cadmium was measured above the 2L standard of 2 µg/L in OB-4 at 18.7 µg/L and in OB-9 at 3.55 µg/L. Monitoring wells OB-4 and OB-9 are located within the Ash Landfill Review Boundary.

- Chromium was measured above the 2L standard of 10 µg/L in MW-4 at 12.9 µg/L. Monitoring well MW-4 is located within the Ash Landfill Review Boundary.

- Iron was measured above the 2L standard of 300 µg/L in MW-3 at 695 µg/L, in MW-6 at 666 µg/L, in MW-7 at 4,952 µg/L, in MW2-9 at 2,394 µg/L, in OB-4 at 390 µg/L, and in OB-5 at 504 µg/L. MW-3 is considered the background well for the landfill. The concentrations of iron in MW-3 and

MW-6 are within historic range for the site. Comparison of the iron concentration in MW-6 to that in MW-3 suggests that the detection in MW-6 may be due to naturally occurring iron.

MW-7, OB-4, and OB-5 are located within the Ash Landfill Review Boundary. The groundwater sample obtained from MW-7 had a turbidity of 67.2 Nephelometric Turbidity Units (NTU). The concentration of iron in MW-7 may be an effect of the Ash Landfill combined with high turbidity.

The iron concentration in MW2-9 appears to be an effect of the landfill. Historic concentrations of iron in MW2-9 have varied widely ranging from 9,142 µg/L in October 2005 to 2,090 µg/L in April 2010. The concentration of iron in MW2-9 decreased from the concentration measured in the last sampling event, which occurred in October 2010. Groundwater flow in the area of MW2-9 is expected to flow toward the Ash Basin.

- Manganese was measured above the 2L standard of 50 µg/L in MW1-D at 145 µg/L, in MW-6 at 55.1 µg/L, in MW-7 at 118 µg/L, in MW2-7 at 369 µg/L, in MW2-9 at 6,093 µg/L, in OB-4 at 78.4 µg/L, and in OB-9 at 2,238 µg/L. The concentration of manganese in MW-6 has fluctuated near the 2L standard over the last several sampling events and has fluctuated greatly since sampling began. Concentrations of manganese in MW-6 have ranged from 61 µg/L in June of 2000 to < 5 µg/L in April 2007.

  MW1-D, MW-7, MW2-7, OB-4, and OB-9 are located within the Ash Landfill Review Boundary. As noted above, the groundwater and surface water flow in the area of MW2-7and MW2-9 is expected to flow toward the Ash Basin. The concentration of manganese in MW2-9 is the highest concentration of manganese measured since sampling began.

  The turbidity of the groundwater sample from monitoring well MW-7 was 67.2 NTU. The concentration of manganese in MW-7 may be an effect of the Ash Landfill combined with high turbidity.

- Nitrate as Nitrogen was measured above the 2L standard of 10,000 µg/L in MW2-7 at 32,555 µg/L. As noted above, MW2-7 is located within the Ash Landfill Review Boundary and groundwater flow is expected to flow toward the Ash Basin.

- Selenium was measured above the 2L standard of 20 µg/L in MW2-7 at 153 µg/L, in OB-4 at 204 µg/L, and in OB-9 at 272 µg/L. MW2-7, OB-4, and OB-9 are located within the Ash Landfill Review Boundary.

- Sulfate was measured above the 2L standard of 250,000 µg/L in MW2-7 at 1,156,400 µg/L, in OB-4 at 1,688,200 µg/L, and in OB-9 at 1,255,400 µg/L. These wells are located within the Ash Landfill Review Boundary.

- Total Dissolved Solids were measured above the 2L standard of 500 µg/L in MW2-7 at 1,944,000 µg/L, in OB-4 at 2,839,000 µg/L, and in OB-9 at 1,983,000 µg/L. These wells are located within the Ash Landfill Review Boundary.

In addition to the constituents listed above, the constituents at the following wells were detected at concentrations below the 2L but equal to or above the corresponding SWSL:

- Barium in MW-7, MW2-9, and OB-5
- Copper in MW-5
- Mercury in MW-7
- Selenium in MW-7
- Zinc in MW-5, MW-7, MW2-7, OB-5, and in OB-9

3.2.2 Appendix I Constituents—Monitoring Wells

The groundwater samples were analyzed for Appendix I constituents as a requirement of the approved Closure Plan dated December 7, 2007. The following Appendix I 2L exceedances were discussed in the previous section regarding semiannual constituent exceedances:

- Arsenic in OB-4
- Cadmium in OB-4 and OB-9
- Chromium in MW-4
- Selenium in MW2-7, OB-4, and OB-9

In addition to these exceedances, the following Appendix I constituents were measured in excess of the corresponding 2L standard:

- Antimony was measured above the 2L standard of 1 µg/L in OB-4 at 26.9 µg/L. OB-4 is located within the Ash Landfill Review Boundary.
- Cobalt was measured above the 2L standard of 1 µg/L in MW2-9 at 10.6 µg/L and in OB-4 at 1.57 µg/L. OB-4 is located inside of the Ash Landfill Review Boundary. As was noted in the previous section, groundwater flow in the area around MW2-9 is expected to flow toward the Ash Basin. The concentration of cobalt in MW2-9 decreased from 17 µg/L in the previous sampling event which took place in October 2010.
- Thallium was measured above the 2L standard of 0.2 µg/L in OB-4 at 12.1 µg/L. OB-4 is located within the Ash Landfill Review Boundary.
- Vanadium was measured above the 2L standard of 0.3 µg/L in MW-1D at 0.42 µg/L, in MW-3 at 1.37 µg/L, in MW-4 at 2.19 µg/L, in MW-5 at 0.58 µg/L, in MW-6 at 0.51 µg/L, in MW-7 at 3.58 µg/L, in MW2-7 at 0.45 µg/L, in OB-4 at 159 µg/L, and in OB-5 at 0.98 µg/L. Wells MW1-D, MW-4, MW-7, MW2-7, and OB-4 are located within the Ash Landfill Review Boundary. MW-3 is the background well for the site and is not likely to be influenced by the landfill. The vanadium in MW-5 and MW-6 may also be reflective of background concentrations. The concentrations of vanadium in MW-3, MW-5, and MW-6 are consistent with historic concentrations at these sites.

The method detection limit (MDL) for several Appendix I constituents is greater than the respective 2L standard. Therefore, these constituents are not included in the list of 2L exceedances. These constituents are:

- 1,2-Dibromo-3-chloropropane,
- 1,2-Dibromoethane (EDB)
- 1,1,2,2-Tetrachloroethane
- 1,2,3-Trichloropropane
- Vinyl chloride

In addition to constituents listed above, the following constituents were detected at concentrations less than the respective 2L standard but in excess of the corresponding SWSL:

- Beryllium in MW2-7 and OB-9
- Barium in MW-7, MW2-9, and in OB-5

- Copper in MW-5
- Selenium in MW-7
- Zinc in MW-5, MW-7, MW2-7, OB-5, and in OB-9
- Toluene in the Field Blank

3.2.3 Semiannual Constituents—Surface Water

Water flowing at SW-1A and SW-2 sample locations is considered representative of groundwater conditions since the water emanates from spring features and flows only a short distance before flowing into the Ash Basin. Therefore, the results are compared to 2L standards. Results for the surface water sampling for the semiannual constituent met the corresponding 2L standards with the exceptions noted below:

- pH was measured below 6.5 in SW-1A at 6.0 and in SW-2 at 5.9. These values are consistent with historic readings at the site.
- Boron was measured above the 2L standard of 700 µg/L in SW-1A at 16,238 µg/L and in SW-2 at 3,561 µg/L. The boron concentration in SW-1A is consistent with historic readings at the site. The boron concentration in SW-2 has been consistently decreasing from a concentration of 19,161 µg/L in October 2007.
- Iron was measured above the 2L standard of 300 µg/L in SW-2 at 479 µg/L. This value is consistent with historic readings at this site.
- Manganese was measured above the 2L standard of 50 µg/L in SW-1A at 1481 µg/L and in SW-2 at 97.1 µg/L. The manganese concentration in SW-1A is consistent with historic readings at the site. The manganese concentration has generally been decreasing since the October 2007 sampling event.
- Nitrate as Nitrogen was measured above the 2L standard of 10,000 µg/L in SW-1A at 23,296 µg/L. These values are consistent with historic readings at the site.
- Selenium was measured above the 2L standard of 20 µg/L in SW-1A at 90.5 µg/L and in SW-2 at 21.5 µg/L. These values are consistent with historic readings at the site.
- Sulfate was measured above the 2L standard of 250,000 µg/L in SW-1A at 8,259,000 µg/L. These values are consistent with historic readings at the site.
- Total Dissolved Solids was measured above the 2L standard of 500,000 µg/L in SW-1A at 1,445,000 µg/L. These values are consistent with historic readings at the site.

In addition, the following constituent was detected at a concentration less than the respective 2L standard but equal to or greater than the corresponding SWSL:

- Zinc in SW-1A

3.2.4 Appendix I Constituents—Surface Water

Results from the surface water sampling for the Appendix I constituents met the corresponding 2L standards with the exceptions noted below:

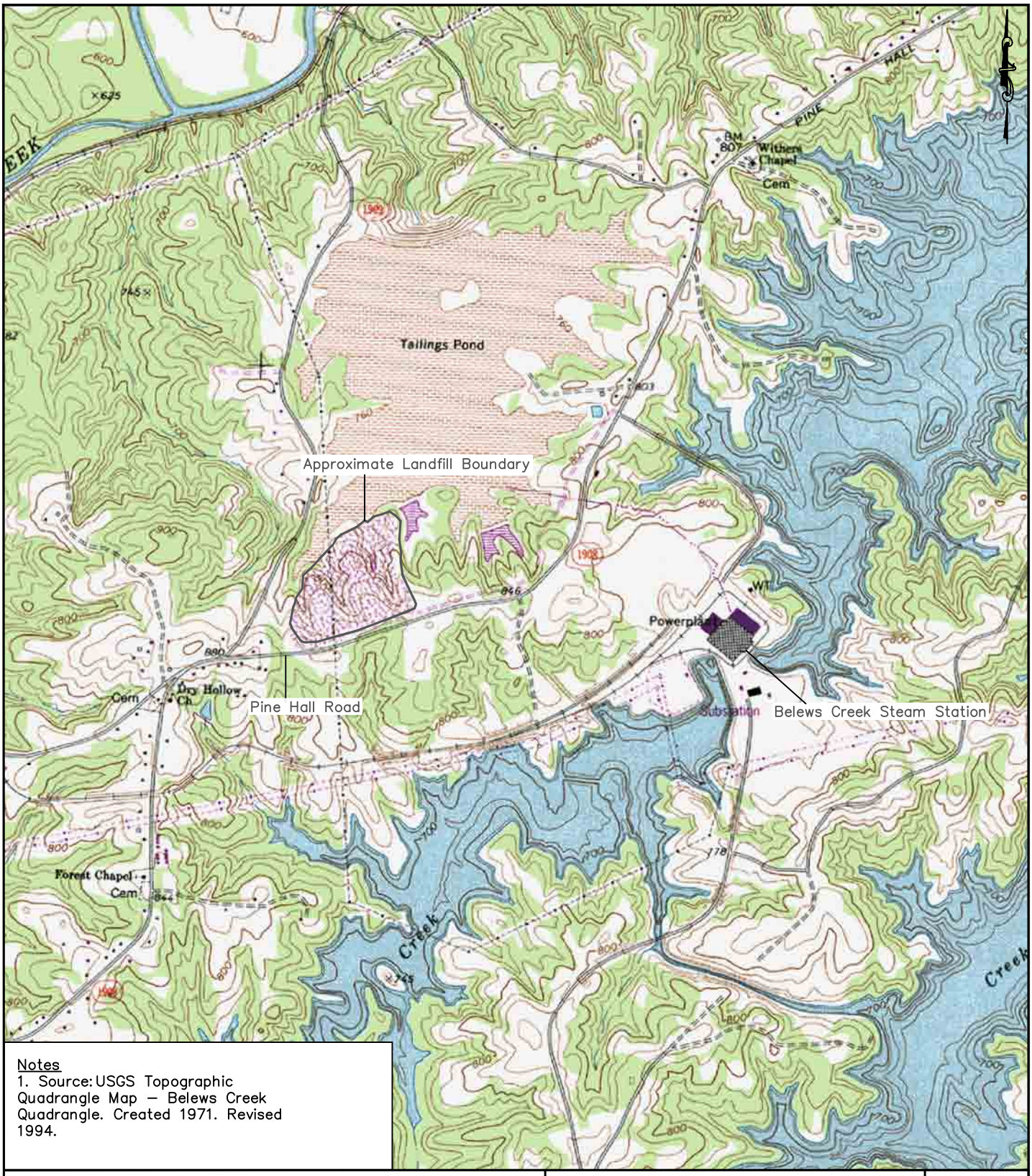
- Cobalt was measured above the 2L standard of 1 µg/L in SW-1A at 2.46 µg/L. This concentration is consistent with historic concentrations at the site.

- Selenium was measured above the 2L standard of 20 µg/L in SW-1A at 90.5 µg/L and in SW-2 at 21.5 µg/L. The concentration of selenium in SW-1A decreased from the last sampling event in October 2010. The concentration of selenium in SW-2 increased from the last sampling event. However, it is lower than historic concentrations at the site, which have ranged from 18.2 µg/L to 49 µg/L.
- Vanadium was measured above the 2L standard of 0.3 µg/L in SW-2 at 0.96 µg/L. These concentrations are consistent with historic concentrations at the site.

In addition to the constituents listed above, the following constituents were analyzed as part of the Appendix I analyses and were found to exceed the corresponding SWSL:

- Beryllium in SW-1A and SW-2
- Zinc in SW-1A

FIGURES



Notes
1. Source: USGS Topographic Quadrangle Map – Belews Creek Quadrangle. Created 1971. Revised 1994.

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SITE LOCATION MAP

BELEWS CREEK STEAM STATION
PINE HALL ROAD ASH LANDFILL
PERMIT #85-03

FIGURE
1

DRAWN BY: ANDREW MOORE
PROJECT MANAGER: WILLIAM M. MILLER
CLIENT: DUKE ENERGY CAROLINAS
DATE: 04/25/11

SCALE (FEET)
1000 0 1000 2000

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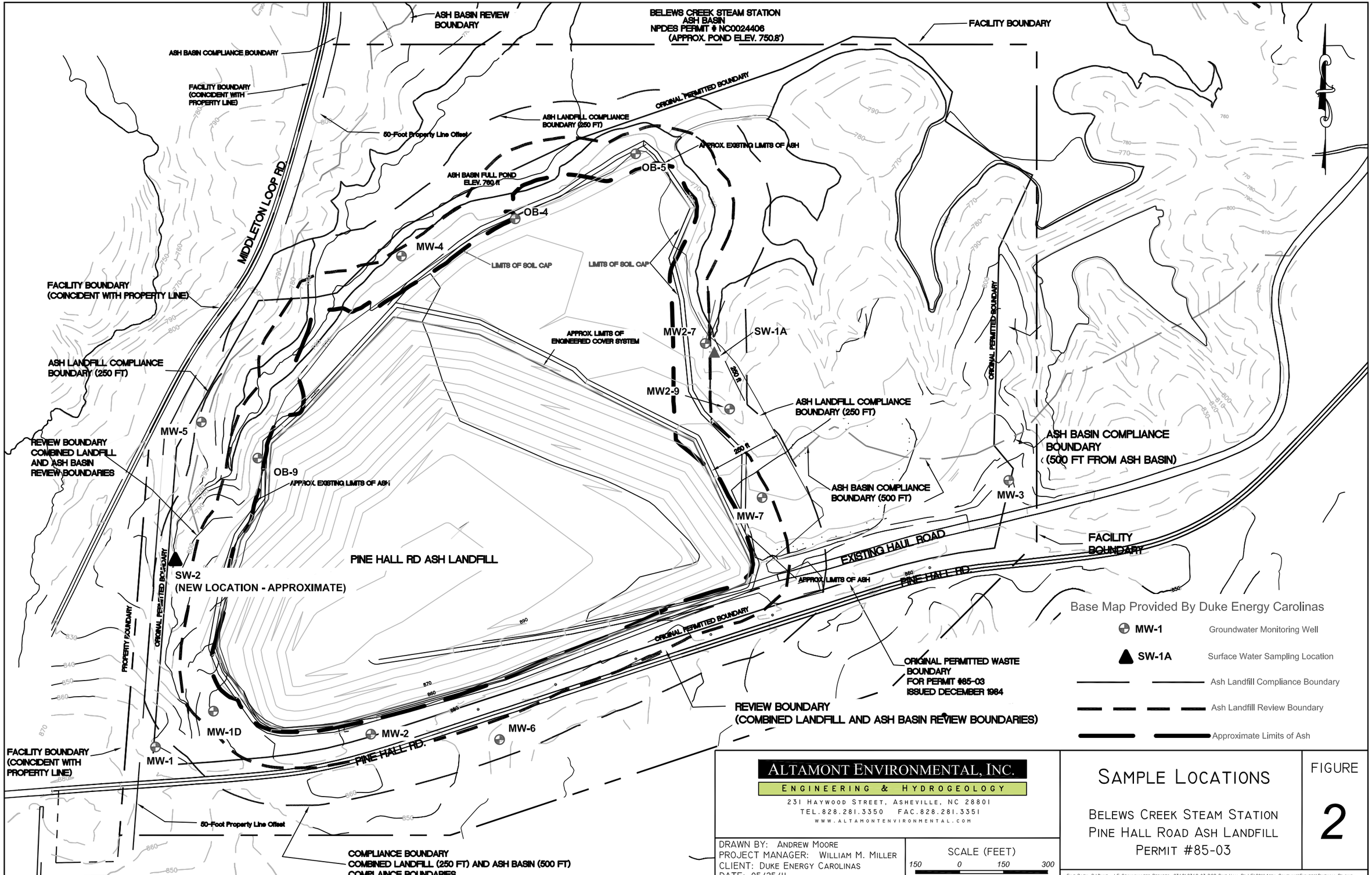

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DRAWN BY: ANDREW MOORE
PROJECT MANAGER: WILLIAM M. MILLER
CLIENT: DUKE ENERGY CAROLINAS
DATE: 05/25/11

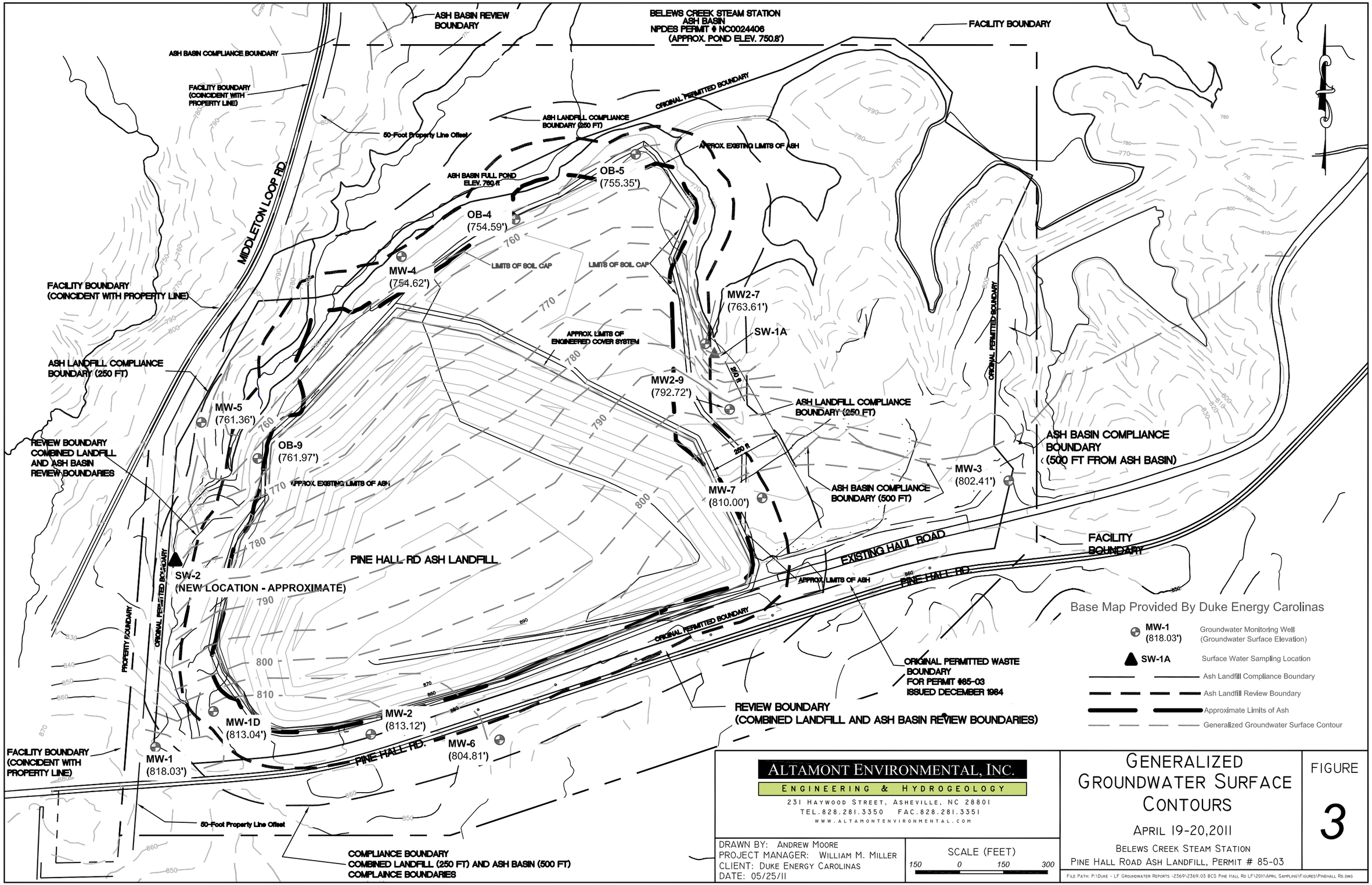
SCALE (FEET)
150 0 150 300

SAMPLE LOCATIONS

BELEWS CREEK STEAM STATION
PINE HALL ROAD ASH LANDFILL
PERMIT #85-03

FIGURE
2

FILE PATH: P:\DUKE - LF GROUNDWATER REPORTS -2369\2369.03 BCS PINE HALL RD LF\2011\APRIL SAMPLING\FIGURES\PINEHALL RD.DWG



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DRAWN BY: ANDREW MOORE
PROJECT MANAGER: WILLIAM M. MILLER
CLIENT: DUKE ENERGY CAROLINAS
DATE: 05/25/11

SCALE (FEET)
150 0 150 300

GENERALIZED GROUNDWATER SURFACE CONTOURS

APRIL 19-20,2011

BELEWS CREEK STEAM STATION
PINE HALL ROAD ASH LANDFILL, PERMIT # 85-03

FIGURE 3

FILE PATH: P:\DUKE - LF GROUNDWATER REPORTS -2369\2369.03 BCS PINE HALL RD LF\2011\APRIL SAMPLING\FIGURES\PINEHALL RD.DWG

TABLES

Table 1--Field Data Parameters
Duke Energy Carolinas Belews Creek Steam Station
Pine Hall Road Ash Landfill - Permit #85-03
Groundwater Monitoring Report

DATE	WELL No.	WELL DEPTH (feet)	DEPTH TO WATER (feet)	WATER ELEV. (feet)	DEPTH TO PRODUCT (feet)	ODOR	Purge METHOD	PUMP RATE (ml/min)	WELL VOLUME (gal)	EVAC VOLUME (gal)	EVAC (yes/no)	TEMP (deg C)	SPECIFIC Conductance (umho/cm)	pH	TURBIDITY (NTU)	ORP (mV-NHE)	DO (mg/L)
4/19/2011	MW-1	47.20	34.66	818.03	N/A	N/A	CP	N/A	2.05	6.75	NO	15.4	16	4.7	7.9	N/A	N/A
4/20/2011	MW-1D	90.53	41.11	813.04	N/A	N/A	CP	N/A	8.06	16.00	NO	14.4	141	6.3	1.3	N/A	N/A
4/19/2011	MW-2	50.00	44.93	813.12	N/A	N/A	CP	N/A	0.83	0.75	YES	14.6	53	5.4	12.2	N/A	N/A
4/19/2011	MW-3	49.50	40.40	802.41	N/A	N/A	CP	N/A	1.48	3.00	NO	13.9	48	5.2	17.1	N/A	N/A
4/20/2011	MW-4	40.20	12.96	754.62	N/A	N/A	CP	N/A	4.44	13.50	NO	15.2	183	6.0	4.2	N/A	N/A
4/19/2011	MW-5	60.20	25.41	761.36	N/A	N/A	CP	N/A	5.67	17.25	NO	16.0	33	5.5	4.7	N/A	N/A
4/19/2011	MW-6	36.84	32.10	804.81	N/A	N/A	CP	N/A	0.77	2.25	NO	15.0	47	5.2	5.6	N/A	N/A
4/19/2011	MW-7	14.26	5.57	810.00	N/A	N/A	CP	N/A	1.42	7.50	NO	14.9	280	5.2	67.2	N/A	N/A
4/19/2011	MW2-7	30.62	14.03	763.61	N/A	N/A	CP	N/A	2.71	13.75	NO	14.1	2065	5.0	2.7	N/A	N/A
4/20/2011	MW2-9	14.61	4.66	792.72	N/A	N/A	CP	N/A	1.62	2.75	YES	12.2	417	5.9	2.3	N/A	N/A
4/19/2011	OB-4	30.03	23.01	754.59	N/A	N/A	CP	N/A	1.14	3.75	NO	16.3	2731	7.6	7.5	N/A	N/A
4/20/2011	OB-5	36.60	25.58	755.35	N/A	N/A	CP	N/A	1.80	10.00	NO	15.6	31	5.0	9.7	N/A	N/A
4/19/2011	OB-9	48.57	37.62	761.97	N/A	N/A	CP	N/A	1.79	6.00	NO	14.9	2062	4.9	0.6	N/A	N/A
4/19/2011	SW-1A	N/A	N/A	N/A	N/A	N/A	NP	N/A	N/A	N/A	N/A	13.5	1612	6.0	1.4	N/A	N/A
4/19/2011	SW-2	N/A	N/A	N/A	N/A	N/A	NP	N/A	N/A	N/A	N/A	15.7	304	5.9	16.7	N/A	N/A

Notes:

1. Purge Methods; LF=Low Flow, CP=Conventional Purge (3-5 well volumes), BP=No Purge (HydraSleeve).
2. Field sampling performed by Duke Energy Carolinas personnel.

Table 2–Field and Analytical Results
Duke Energy Carolinas Belews Creek Steam Station
Pine Hall Road Ash Landfill - Permit #85-03
Groundwater Monitoring Report

Facility: Belews Creek Steam Station - Pine Hall Road Landfill - Permit #85-03

Laboratory Certificate Codes:
Duke Power #5193
Duke Energy Analytical Laboratory #248

Sample Date: April 19-20, 2011

Field Sampling performed by Duke Energy Carolinas

Parameter	SWS ID	Units	Certificate Code	Monitoring Wells						SWSL	2L Standard
				8503 MW-1	8503 MW-1D	8503 MW-2	8503 MW-3	8503 MW-4	8508 MW-5		
Field pH	320	Std. Units	5193	**4.7**	**6.3**	**5.4**	**5.2**	**6.0**	**5.5**		6.5-8.5
Field Specific Conductance	323	umho/cm	5193	16	141	53	48	183	33		
Temperature	325	°C	5193	15.4	14.4	14.6	13.9	15.2	16.0		
Top Casing	328	msl-feet		852.69	854.15	858.05	842.81	767.58	786.77		
Depth to Water	318	feet		34.66	41.11	44.93	40.40	12.96	25.41		
Water Elevation	319	msl-feet		818.03	813.04	813.12	802.41	754.62	761.36		
Well Depth	411	feet		47.20	90.53	50.00	49.50	40.20	60.20		
Arsenic	14	ug/L	248	0.08 U	0.08 U	0.08 U	0.2 J	0.08 J	0.45 J	10	10
Barium	15	ug/L	248	18.2 *J*	1.27 J	77.5 *J*	64.7 *J*	2.72 J	31.4 *J*	100	700
Boron	428	ug/L	248	6.47 J	8.75 J	3.45 J	3.3 U	291	3.3 U	NE	700
Cadmium	34	ug/L	248	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1	2
Chloride	455	ug/L	248	1,875	7,750	7,298	9,718	1,988	1,811		
Chromium	51	ug/L	248	0.79 J	0.5 U	2.35 J	1.17 J	**12.9**	0.7 J	10	10
Copper	54	ug/L	248	1 U	1 U	1 U	1 U	1 U	80.4	10	1,000
Fluoride	312	ug/L	248	43 J	162 *J*	48 J	45 J	63 J	42 J	2,000	2,000
Iron	340	ug/L	248	163 *J*	77.4 *J*	95.3 *J*	**695**	214 *J*	299 *J*	300	300
Lead	131	ug/L	248	0.58 J	0.07 U	0.13 J	0.32 J	0.07 U	6.99 *J*	10	15
Manganese	342	ug/L	248	25.4 *J*	**145**	8.51 *J*	13.5 *J*	4.19 J	8.95 *J*	50	50
Mercury	132	ug/L	248	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U	0.2	1
Nickel	152	ug/L	248	0.77 J	0.5 U	1.85 J	0.73 J	0.93 J	0.5 U	50	100
Nitrate (as Nitrogen)	303	ug/L	248	166 *J*	1,656 *J*	489 *J*	5.4 U	664 *J*	900 *J*	10,000	10,000
Selenium	183	ug/L	248	0.09 U	0.15 J	0.09 U	0.09 U	9.5 *J*	0.09 U	10	20
Silver	184	ug/L	248	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	10	20
Sulfate	315	ug/L	248	416 *J*	2,631 *J*	262 *J*	158 *J*	43,930 *J*	112 *J*	250,000	250,000
Total Dissolved Solids	311	ug/L	248	6,670 U	82,000	53,000	29,000	125,000	33,000	NE	500,000
Zinc	213	ug/L	248	3.86 J	2.6 U	3.15 J	4.64 J	2.6 U	49.7	10	1,000

Notes:

1. Concentrations presented in micrograms per liter (µg/L).
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
4. 2L Standard is from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (last amended on January 1, 2010).
5. Grayed values indicate values that attain or exceed the SWSL standard.
6. **Bold** values indicate values that attain or exceed the 15A NCAC 2L MCL.
7. "NE" means Not Established. Blank cells indicate that there is no information relevant to the respective row.
8. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used for parameters not detected at concentrations above the Method Detection Limit (MDL). "J" is used for parameters detected at estimated concentrations above the Method Detection Limit (MDL) but below the laboratory's Method Reporting Limit (MRL). An italicized *J*-flag is a data qualifier, added by Altamont, to indicate a detected concentration that is greater than the laboratory's MDL but less than the SWSL.
9. Data obtained from Electronic Data Deliverable (EDD) provided by Tim Hunsucker of Duke Energy Carolinas on June 1, 2011.
10. According to the Constituent Look-up webpage on the DENR Division of Waste Management webpage, there is no SWSL or 2L standard for choride associated with CAS number 16887-08-6. Therefore, the corresponding cells are blank in this table.

Table 2–Field and Analytical Results
Duke Energy Carolinas Belews Creek Steam Station
Pine Hall Road Ash Landfill - Permit #85-03
Groundwater Monitoring Report

Facility: Belews Creek Steam Station - Pine Hall Road Landfill - Permit #85-03

Laboratory Certificate Codes:
Duke Power #5193
Duke Energy Analytical Laboratory #248

Sample Date: April 19-20, 2011

Field Sampling performed by Duke Energy Carolinas

Parameter	SWS ID	Units	Certificate Code	8503 MW-6	8503 MW-7	8503 MW-2-7	8503 MW-2-9	8503 OB-4	8503 OB-5	SWSL	2L Standard
Field pH	320	Std. Units	5193	**5.2**	**5.2**	**5.0**	**5.9**	7.6	**5.0**		6.5-8.5
Field Specific Conductance	323	umho/cm	5193	47	280	2065	417	2,731	31		
Temperature	325	°C	5193	15.0	14.9	14.1	12.2	16.3	15.6		
Top Casing	328	msl-feet		836.91	815.57	777.64	797.38	777.60	780.93		
Depth to Water	318	feet		32.10	5.57	14.03	4.66	23.01	25.58		
Water Elevation	319	msl-feet		804.81	810.00	763.61	792.72	754.59	755.35		
Well Depth	411	feet		36.84	14.26	30.62	14.61	30.03	36.60		
Arsenic	14	ug/L	248	0.17 J	0.6 J	0.51 J	0.38 J	**58.5**	0.25 J	10	10
Barium	15	ug/L	248	57.2 *J*	144	44.1 *J*	113	44.1 *J*	142	100	700
Boron	428	ug/L	248	3.3 U	**1,739**	**20,329**	**1,336**	**35,747**	14 J	NE	700
Cadmium	34	ug/L	248	0.1 U	0.12 J	0.79 J	0.1 U	**18.7**	0.1 U	1	2
Chloride	455	ug/L	248	5,540	7,750	13,520	7,944	5,194	5,496		
Chromium	51	ug/L	248	0.5 U	2.3 J	0.5 U	0.5 U	0.5 U	0.5 U	10	10
Copper	54	ug/L	248	1 U	1 U	1 U	1 U	1 U	1 U	10	1,000
Fluoride	312	ug/L	248	40 J	50 J	56 J	127 *J*	553 *J*	47 J	2,000	2,000
Iron	340	ug/L	248	**666**	**4952**	99.1 *J*	**2394**	**390**	**504**	300	300
Lead	131	ug/L	248	0.08 J	2.61 *J*	0.09 J	0.18 J	1.05 *J*	0.43 J	10	15
Manganese	342	ug/L	248	**55.1**	**118**	**369**	**6,093**	**78.4**	16.2 *J*	50	50
Mercury	132	ug/L	248	0.07 U	0.3	0.11 *J*	0.07 U	0.07 U	0.07 U	0.2	1
Nickel	152	ug/L	248	0.5 U	1.58 J	13.5 *J*	2.02 J	2.13 J	0.5 U	50	100
Nitrate (as Nitrogen)	303	ug/L	248	5.4 U	5,223 *J*	**32,555**	1,384 *J*	6,105 *J*	5.4 U	10,000	10,000
Selenium	183	ug/L	248	0.09 U	15.8	**153**	5.75 *J*	**204**	0.09 U	10	20
Silver	184	ug/L	248	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	10	20
Sulfate	315	ug/L	248	53 J	88,370 *J*	**1,156,400**	59,720 *J*	**1,688,200**	119 *J*	250,000	250,000
Total Dissolved Solids	311	ug/L	248	42,000	227,000	**1,944,000**	247,000	**2,839,000**	18,000	NE	500,000
Zinc	213	ug/L	248	2.6 U	30.2	23.2	3.81 J	8.17 *J*	11.7	10	1,000

Notes:

1. Concentrations presented in micrograms per liter (µg/L).
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
4. 2L Standard is from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (last amended on January 1, 2010).
5. Grayed values indicate values that attain or exceed the SWSL standard.
6. **Bold** values indicate values that attain or exceed the 15A NCAC 2L MCL.
7. "NE" means Not Established. Blank cells indicate that there is no information relevant to the respective row.
8. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used for parameters not detected at concentrations above the Method Detection Limit (MDL). "J" is used for parameters detected at estimated concentrations above the Method Detection Limit (MDL) but below the laboratory's Method Reporting Limit (MRL). An italicized *J*-flag is a data qualifier, added by Altamont, to indicate a detected concentration that is greater than the laboratory's MDL but less than the SWSL.
9. Data obtained from Electronic Data Deliverable (EDD) provided by Tim Hunsucker of Duke Energy Carolinas on June 1, 2011.
10. According to the Constituent Look-up webpage on the DENR Division of Waste Management webpage, there is no SWSL or 2L standard for choride associated with CAS number 16887-08-6. Therefore, the corresponding cells are blank in this table.

Table 2–Field and Analytical Results
Duke Energy Carolinas Belews Creek Steam Station
Pine Hall Road Ash Landfill - Permit #85-03
Groundwater Monitoring Report

Facility: Belews Creek Steam Station - Pine Hall Road Landfill - Permit #85-03

Laboratory Certificate Codes:
Duke Power #5193
Duke Energy Analytical Laboratory #248

Sample Date: April 19-20, 2011

Field Sampling performed by Duke Energy Carolinas

Parameter	SWS ID	Units	Certificate Code	8503 OB-9	8503 SW-1A	8503 SW-2	Field Blank	SWSL	2L Standard
Field pH	320	Std. Units	5193	**4.9**	**6.0**	**5.9**			6.5-8.5
Field Specific Conductance	323	umho/cm	5193	2,062	1,612	304			
Temperature	325	°C	5193	14.9	13.5	15.7			
Top Casing	328	msl-feet		799.59					
Depth to Water	318	feet		37.62					
Water Elevation	319	msl-feet		761.97					
Well Depth	411	feet		48.57					
Arsenic	14	ug/L	248	0.77 J	0.33 J	0.34 J	0.08 U	10	10
Barium	15	ug/L	248	17.4 *J*	84.4 *J*	37.8 *J*	0.42 J	100	700
Boron	428	ug/L	248	**28,983**	**16,238**	**3,561**	3.3 U	NE	700
Cadmium	34	ug/L	248	**3.55**	0.63 J	0.18 J	0.1 U	1	2
Chloride	455	ug/L	248	10,080	11,860	5,391	29 J		
Chromium	51	ug/L	248	0.5 U	0.5 U	0.5 U	0.5 U	10	10
Copper	54	ug/L	248	1 U	1 U	1 U	1 U	10	1,000
Fluoride	312	ug/L	248	38 J	51 J	70 J	37 J	2,000	2,000
Iron	340	ug/L	248	4.81 J	74.8 *J*	**479**	7.18 J	300	300
Lead	131	ug/L	248	0.11 J	0.07 U	0.69 J	0.07 U	10	15
Manganese	342	ug/L	248	**2,238**	**1,481**	**97.1**	0.24 J	50	50
Mercury	132	ug/L	248	0.14 *J*	0.07 U	0.07 U	0.07 U	0.2	1
Nickel	152	ug/L	248	13.5 *J*	3.49 J	0.57 J	0.5 U	50	100
Nitrate (as Nitrogen)	303	ug/L	248	4,774 *J*	**23,296**	635 *J*	5.4 U	10,000	10,000
Selenium	183	ug/L	248	**272**	**90.5**	**21.5**	0.09 U	10	20
Silver	184	ug/L	248	0.7 U	0.7 U	0.7 U	0.7 U	10	20
Sulfate	315	ug/L	248	**1,255,400**	**825,900**	102,440	36 J	250,000	250,000
Total Dissolved Solids	311	ug/L	248	**1,983,000**	**1,445,000**	202,000		NE	500,000
Zinc	213	ug/L	248	66.5	11.2	9.54 *J*	2.6 U	10	1,000

Notes:

1. Concentrations presented in micrograms per liter (µg/L).
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
4. 2L Standard is from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (last amended on January 1, 2010).
5. Grayed values indicate values that attain or exceed the SWSL standard.
6. **Bold** values indicate values that attain or exceed the 15A NCAC 2L MCL.
7. "NE" means Not Established. Blank cells indicate that there is no information relevant to the respective row.
8. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used for parameters not detected at concentrations above the Method Detection Limit (MDL). "J" is used for parameters detected at estimated concentrations above the Method Detection Limit (MDL) but below the laboratory's Method Reporting Limit (MRL). An italicized *J*-flag is a data qualifier, added by Altamont, to indicate a detected concentration that is greater than the laboratory's MDL but less than the SWSL.
9. Data obtained from Electronic Data Deliverable (EDD) provided by Tim Hunsucker of Duke Energy Carolinas on June 1, 2011.
10. According to the Constituent Look-up webpage on the DENR Division of Waste Management webpage, there is no SWSL or 2L standard for choride associated with CAS number 16887-08-6. Therefore, the corresponding cells are blank in this table.

Table 3–Analytical Results for Appendix I - 40 CFR Part 258 Compounds
Duke Energy Carolinas Belews Creek Steam Station
Pine Hall Road Ash Landfill - Permit #85-03
Groundwater Monitoring Report

	Compound	2L Standard (µg/L)	SWSL Standard (µg/L)	8503-MW-1	8503-MW-1D	8503-MW-2	8503-MW-3	8503-MW-4	8503-MW-5
(1)	Antimony	1*	6	0.55 J	0.73 J	0.67 J	0.51 J	0.62 J	0.61 J
(2)	Arsenic	10	10	0.08 U	0.08 U	0.08 U	0.2 J	0.08 J	0.45 J
(3)	Barium	700	100	18.2 J	1.27 J	77.5 J	64.7 J	2.72 J	31.4 J
(4)	Beryllium	4*	1	0.27 J	0.2 U	0.53 J	0.27 J	0.2 U	0.2 U
(5)	Cadmium	2	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
(6)	Chromium	10	10	0.79 J	0.5 U	2.35 J	1.17 J	**12.9**	0.7 J
(7)	Cobalt	1*	10	0.98 J	0.41 J	0.12 U	0.33 J	0.12 U	0.12 U
(8)	Copper	1000	10	1 U	1 U	1 U	1 U	1 U	80.4
(9)	Lead	15	10	0.58 J	0.07 U	0.13 J	0.32 J	0.07 U	6.99 J
(10)	Nickel	100	50	0.77 J	0.5 U	1.85 J	0.73 J	0.93 J	0.5 U
(11)	Selenium	20	10	0.09 U	0.15 J	0.09 U	0.09 U	9.5 J	0.09 U
(12)	Silver	20	10	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
(13)	Thallium	0.2*	5.5	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
(14)	Vanadium	0.3*	25	0.09 J	**0.42** J	0.22 J	**1.37** J	**2.19** J	**0.58** J
(15)	Zinc	1000	10	3.86 J	2.6 U	3.15 J	4.64 J	2.6 U	49.7
(16)	Acetone	6000	100	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
(17)	Acrylonitrile	NE	200	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
(18)	Benzene	1	1	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
(19)	Bromochloromethane	NE	3	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
(20)	Bromodichloromethane	0.6	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
(21)	Bromoform	4	3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(22)	Carbon disulfide	700	100	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
(23)	Carbon tetrachloride	0.3	1	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
(24)	Chlorobenzene	50	3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
(25)	Chloroethane	3000	10	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
(26)	Chloroform	70	5	0.14 U	0.14 U	0.14 U	0.56 J	0.14 U	0.14 U
(27)	Dibromochloromethane	0.4	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
(28)	1,2-Dibromo-3-chloropropane	0.04	13	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
(29)	1,2-Dibromoethane (EDB)	0.02	1	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
(30)	1,2-Dichlorobenzene	20	5	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
(31)	1,4-Dichlorobenzene	6	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
(32)	trans-1,4-Dichloro-2-butene	NE	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
(33)	1,1-Dichloroethane	6	5	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
(34)	1,2-Dichloroethane	0.4	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
(35)	1,1-Dichloroethene	7	5	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
(36)	cis-1,2-Dichloroethene	70	5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
(37)	trans-1,2-Dichloroethene	100	5	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
(38)	1,2-Dichloropropane	0.6	1	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
(39)	cis-1,3-Dichloropropene	0.4	1	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
(40)	trans-1,3-Dichloropropene	0.4	1	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(41)	Ethylbenzene	600	1	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
(42)	2-Hexanone	40*	50	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
(43)	Bromomethane	10*	1	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
(44)	Chloromethane	3	1	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
(45)	Dibromomethane	70*	10	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
(46)	Methylene Chloride	5	1	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
(47)	2-Butanone (MEK)	4000	100	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
(48)	Iodomethane	NE	10	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
(49)	4-Methyl-2-pentanone (MIBK)	NE	100	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
(50)	Styrene	70	1	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(51)	1,1,1,2-Tetrachloroethane	1*	5	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
(52)	1,1,2,2-Tetrachloroethane	0.2	3	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
(53)	Tetrachloroethene	0.7	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
(54)	Toluene	600	1	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(55)	1,1,1-Trichloroethane	200	1	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
(56)	1,1,2-Trichloroethane	0.6*	1	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
(57)	Trichloroethene	3	1	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
(58)	Trichlorofluoromethane	2000	1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
(59)	1,2,3-Trichloropropane	0.005	1	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
(60)	Vinyl acetate	88*	50	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
(61)	Vinyl chloride	0.03	1	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
(62)	m,p,o-Xylenes	500	5	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U

Notes:

1. Concentrations presented in micrograms per liter (µg/L).
2. 2L Standard is from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (last amended on January 1, 2010).
3. * Indicates a 2L Interim Maximum Allowable Concentration (IMAC).
4. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
5. Bold values indicate values that attain or exceed the 15A NCAC 2L MCL.
6. Grayed values indicate values that attain or exceed the SWSL standard.
7. "NE" means Not Established. Blank cells indicate that there is no information relevant to the respective row.
8. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used for parameters not detected at concentrations above the Method Detection Limit (MDL). "J" is used for parameters detected at estimated concentrations above the Method Detection Limit (MDL) but below the laboratory's Method Reporting Limit (MRL). An italicized *J*-flag is a data qualifier, added by Altamont, to indicate a detected concentration that is greater than the laboratory's MDL but less than the SWSL.
9. Data obtained from Electronic Data Deliverable (EDD) provided by Tim Hunsucker of Duke Energy Carolinas on June 1, 2011.

Table 3–Analytical Results for Appendix I - 40 CFR Part 258 Compounds
Duke Energy Carolinas Belews Creek Steam Station
Pine Hall Road Ash Landfill - Permit #85-03
Groundwater Monitoring Report

	Compound	2L Standard (µg/L)	SWSL Standard (µg/L)	8503-MW-6	8503-MW-7	8503-MW2-7	8503-MW2-9	8503-0B-4	8503-0B-5
(1)	Antimony	1*	6	0.68 J	0.63 J	0.68 J	0.74 J	**26.9**	0.64 J
(2)	Arsenic	10	10	0.17 J	0.6 J	0.51 J	0.38 J	**58.5**	0.25 J
(3)	Barium	700	100	57.2 *J*	144	44.1 *J*	113	44.1 *J*	142
(4)	Beryllium	4*	1	0.6 J	0.9 J	2.47 J	0.2 U	0.25 J	0.47 J
(5)	Cadmium	2	1	0.1 U	0.12 J	0.79 J	0.1 U	**18.7**	0.1 U
(6)	Chromium	10	10	0.5 U	2.3 J	0.5 U	0.5 U	0.5 U	0.5 U
(7)	Cobalt	1*	10	0.84 J	0.48 J	0.77 J	**10.6**	**1.57** *J*	0.13 J
(8)	Copper	1000	10	1 U	1 U	1 U	1 U	1 U	1 U
(9)	Lead	15	10	0.08 J	2.61 *J*	0.09 J	0.18 J	1.05 *J*	0.43 J
(10)	Nickel	100	50	0.5 U	1.58 J	13.5 *J*	2.02 J	2.13 J	0.5 U
(11)	Selenium	20	10	0.09 U	15.8	**153**	5.75 *J*	**204**	0.09 U
(12)	Silver	20	10	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
(13)	Thallium	0.2*	5.5	0.13 U	0.13 U	0.13 U	0.13 U	**12.1**	0.13 U
(14)	Vanadium	0.3*	25	**0.51** J	**3.58** *J*	**0.45** J	0.27 J	**159**	**0.98** J
(15)	Zinc	1000	10	2.6 U	30.2	23.2	3.81 J	8.17 *J*	11.7
(16)	Acetone	6000	100	2.2 U	2.2 U	2.2 U	3.6 J	2.2 U	2.2 U
(17)	Acrylonitrile	NE	200	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
(18)	Benzene	1	1	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
(19)	Bromochloromethane	NE	3	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
(20)	Bromodichloromethane	0.6	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
(21)	Bromoform	4	3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(22)	Carbon disulfide	700	100	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
(23)	Carbon tetrachloride	0.3	1	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
(24)	Chlorobenzene	50	3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
(25)	Chloroethane	3000	10	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U
(26)	Chloroform	70	5	2.6 *J*	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
(27)	Dibromochloromethane	0.4	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
(28)	1,2-Dibromo-3-chloropropane	0.04	13	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
(29)	1,2-Dibromoethane (EDB)	0.02	1	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
(30)	1,2-Dichlorobenzene	20	5	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
(31)	1,4-Dichlorobenzene	6	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
(32)	trans-1,4-Dichloro-2-butene	NE	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
(33)	1,1-Dichloroethane	6	5	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
(34)	1,2-Dichloroethane	0.4	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
(35)	1,1-Dichloroethene	7	5	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U
(36)	cis-1,2-Dichloroethene	70	5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
(37)	trans-1,2-Dichloroethene	100	5	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
(38)	1,2-Dichloropropane	0.6	1	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
(39)	cis-1,3-Dichloropropene	0.4	1	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
(40)	trans-1,3-Dichloropropene	0.4	1	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(41)	Ethylbenzene	600	1	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
(42)	2-Hexanone	40*	50	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
(43)	Bromomethane	10*	1	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
(44)	Chloromethane	3	1	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
(45)	Dibromomethane	70*	10	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
(46)	Methylene Chloride	5	1	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
(47)	2-Butanone (MEK)	4000	100	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
(48)	Iodomethane	NE	10	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
(49)	4-Methyl-2-pentanone (MIBK)	NE	100	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
(50)	Styrene	70	1	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(51)	1,1,1,2-Tetrachloroethane	1*	5	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
(52)	1,1,2,2-Tetrachloroethane	0.2	3	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
(53)	Tetrachloroethene	0.7	1	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
(54)	Toluene	600	1	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
(55)	1,1,1-Trichloroethane	200	1	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U
(56)	1,1,2-Trichloroethane	0.6*	1	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U
(57)	Trichloroethene	3	1	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U
(58)	Trichlorofluoromethane	2000	1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
(59)	1,2,3-Trichloropropane	0.005	1	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
(60)	Vinyl acetate	88*	50	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
(61)	Vinyl chloride	0.03	1	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
(62)	m,p,o-Xylenes	500	5	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U

Notes:

1. Concentrations presented in micrograms per liter (µg/L).
2. 2L Standard is from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (last amended on January 1, 2010).
3. * Indicates a 2L Interim Maximum Allowable Concentration (IMAC).
4. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
5. Bold values indicate values that attain or exceed the 15A NCAC 2L MCL.
6. Grayed values indicate values that attain or exceed the SWSL standard.
7. "NE" means Not Established. Blank cells indicate that there is no information relevant to the respective row.
8. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used for parameters not detected at concentrations above the Method Detection Limit (MDL). "J" is used for parameters detected at estimated concentrations above the Method Detection Limit (MDL) but below the laboratory's Method Reporting Limit (MRL). An italicized *J*-flag is a data qualifier, added by Altamont, to indicate a detected concentration that is greater than the laboratory's MDL but less than the SWSL.
9. Data obtained from Electronic Data Deliverable (EDD) provided by Tim Hunsucker of Duke Energy Carolinas on June 1, 2011.

Table 3–Analytical Results for Appendix I - 40 CFR Part 258 Compounds
Duke Energy Carolinas Belews Creek Steam Station
Pine Hall Road Ash Landfill - Permit #85-03
Groundwater Monitoring Report

	Compound	2L Standard (µg/L)	SWSL Standard (µg/L)	8503-OB-9	8503-SW-1A	8503-SW-2	FIELD BLANK
(1)	Antimony	1*	6	0.65 J	0.7 J	0.53 J	0.52 J
(2)	Arsenic	10	10	0.77 J	0.33 J	0.34 J	0.08 U
(3)	Barium	700	100	17.4 *J*	84.4 *J*	37.8 *J*	0.42 J
(4)	Beryllium	4*	1	3.2 J	1.08 J	1.15 J	0.2 U
(5)	Cadmium	2	1	**3.55**	0.63 J	0.18 J	0.1 U
(6)	Chromium	10	10	0.5 U	0.5 U	0.5 U	0.5 U
(7)	Cobalt	1*	10	0.47 J	**2.46** *J*	0.9 J	0.12 U
(8)	Copper	1000	10	1 U	1 U	1 U	1 U
(9)	Lead	15	10	0.11 J	0.07 U	0.69 J	0.07 U
(10)	Nickel	100	50	13.5 *J*	3.49 J	0.57 J	0.5 U
(11)	Selenium	20	10	**272**	**90.5**	**21.5**	0.09 U
(12)	Silver	20	10	0.7 U	0.7 U	0.7 U	0.7 U
(13)	Thallium	0.2*	5.5	0.13 U	0.13 U	0.13 U	0.13 U
(14)	Vanadium	0.3*	25	0.1 J	0.21 J	**0.96** J	0.05 U
(15)	Zinc	1000	10	66.5	11.2	9.54 *J*	2.6 U
(16)	Acetone	6000	100	2.2 U	2.2 U	29.3 *J*	7.7 J
(17)	Acrylonitrile	NE	200	1.9 U	1.9 U	1.9 U	1.9 U
(18)	Benzene	1	1	0.25 U	0.25 U	0.25 U	**1.3**
(19)	Bromochloromethane	NE	3	0.17 U	0.17 U	0.17 U	0.17 U
(20)	Bromodichloromethane	0.6	1	0.18 U	0.18 U	0.18 U	0.18 U
(21)	Bromoform	4	3	0.26 U	0.26 U	0.26 U	0.26 U
(22)	Carbon disulfide	700	100	1.2 U	1.2 U	1.2 U	1.2 U
(23)	Carbon tetrachloride	0.3	1	0.25 U	0.25 U	0.25 U	0.25 U
(24)	Chlorobenzene	50	3	0.23 U	0.23 U	0.23 U	0.23 U
(25)	Chloroethane	3000	10	0.54 U	0.54 U	0.54 U	0.54 U
(26)	Chloroform	70	5	0.14 U	0.14 U	0.14 U	0.14 U
(27)	Dibromochloromethane	0.4	3	0.21 U	0.21 U	0.21 U	0.21 U
(28)	1,2-Dibromo-3-chloropropane	0.04	13	2.5 U	2.5 U	2.5 U	2.5 U
(29)	1,2-Dibromoethane (EDB)	0.02	1	0.27 U	0.27 U	0.27 U	0.27 U
(30)	1,2-Dichlorobenzene	20	5	0.30 U	0.30 U	0.30 U	0.30 U
(31)	1,4-Dichlorobenzene	6	1	0.33 U	0.33 U	0.33 U	0.33 U
(32)	trans-1,4-Dichloro-2-butene	NE	100	1.0 U	1.0 U	1.0 U	1.0 U
(33)	1,1-Dichloroethane	6	5	0.32 U	0.32 U	0.32 U	0.32 U
(34)	1,2-Dichloroethane	0.4	1	0.12 U	0.12 U	0.12 U	0.12 U
(35)	1,1-Dichloroethene	7	5	0.56 U	0.56 U	0.56 U	0.56 U
(36)	cis-1,2-Dichloroethene	70	5	0.19 U	0.19 U	0.19 U	0.19 U
(37)	trans-1,2-Dichloroethene	100	5	0.49 U	0.49 U	0.49 U	0.49 U
(38)	1,2-Dichloropropane	0.6	1	0.27 U	0.27 U	0.27 U	0.27 U
(39)	cis-1,3-Dichloropropene	0.4	1	0.13 U	0.13 U	0.13 U	0.13 U
(40)	trans-1,3-Dichloropropene	0.4	1	0.26 U	0.26 U	0.26 U	0.26 U
(41)	Ethylbenzene	600	1	0.30 U	0.30 U	0.30 U	0.70 J
(42)	2-Hexanone	40*	50	0.46 U	0.46 U	2.8 J	0.46 U
(43)	Bromomethane	10*	1	0.29 U	0.29 U	0.29 U	0.29 U
(44)	Chloromethane	3	1	0.11 U	0.11 U	0.53 J	0.41 J
(45)	Dibromomethane	70*	10	0.21 U	0.21 U	0.21 U	0.21 U
(46)	Methylene Chloride	5	1	0.97 U	0.97 U	0.97 U	0.97 U
(47)	2-Butanone (MEK)	4000	100	0.96 U	0.96 U	0.96 U	0.96 U
(48)	Iodomethane	NE	10	0.32 U	0.32 U	0.32 U	0.32 U
(49)	4-Methyl-2-pentanone (MIBK)	NE	100	0.33 U	0.33 U	0.33 U	0.33 U
(50)	Styrene	70	1	0.26 U	0.26 U	0.26 U	0.26 U
(51)	1,1,1,2-Tetrachloroethane	1*	5	0.33 U	0.33 U	0.33 U	0.33 U
(52)	1,1,2,2-Tetrachloroethane	0.2	3	0.40 U	0.40 U	0.40 U	0.40 U
(53)	Tetrachloroethene	0.7	1	0.46 U	0.46 U	0.46 U	0.46 U
(54)	Toluene	600	1	0.26 U	0.37 J	0.52 J	4.6
(55)	1,1,1-Trichloroethane	200	1	0.48 U	0.48 U	0.48 U	0.48 U
(56)	1,1,2-Trichloroethane	0.6*	1	0.29 U	0.29 U	0.29 U	0.29 U
(57)	Trichloroethene	3	1	0.47 U	0.47 U	0.47 U	0.47 U
(58)	Trichlorofluoromethane	2000	1	0.2 U	0.2 U	0.2 U	0.2 U
(59)	1,2,3-Trichloropropane	0.005	1	0.41 U	0.41 U	0.41 U	0.41 U
(60)	Vinyl acetate	88*	50	0.35 U	0.35 U	0.35 U	0.35 U
(61)	Vinyl chloride	0.03	1	0.62 U	0.62 U	0.62 U	0.62 U
(62)	m,p,o-Xylenes	500	5	0.66 U	0.66 U	0.74 J	3.1 *J*

Notes:

1. Concentrations presented in micrograms per liter (µg/L).
2. 2L Standard is from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (last amended on January 1, 2010).
3. * Indicates a 2L Interim Maximum Allowable Concentration (IMAC).
4. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
5. Bold values indicate values that attain or exceed the 15A NCAC 2L MCL.
6. Grayed values indicate values that attain or exceed the SWSL standard.
7. "NE" means Not Established. Blank cells indicate that there is no information relevant to the respective row.
8. Qualifiers in non-italicized text are laboratory data qualifiers or "flags". "U" is used for parameters not detected at concentrations above the Method Detection Limit (MDL). "J" is used for parameters detected at estimated concentrations above the Method Detection Limit (MDL) but below the laboratory's Method Reporting Limit (MRL). An italicized *J*-flag is a data qualifier, added by Altamont, to indicate a detected concentration that is greater than the laboratory's MDL but less than the SWSL.
9. Data obtained from Electronic Data Deliverable (EDD) provided by Tim Hunsucker of Duke Energy Carolinas on June 1, 2011.

APPENDICES

APPENDIX A
Chain-of-Custody Forms

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Duke Energy

For Detailed Instructions, see:
http://dewww/essenv/coc/

Duke Energy Analytical Lab Services
Mail Code MGO3A2 (Building 7405)
13339 Hagers Ferry Rd
Huntersville, N. C. 28078
(704) 875-5245
Fax: (704) 875-5038

Analytical Laboratory Use Only

ORDER J11040300 | MATRIX GW_RCRA | Samples Originating From NC √ SC ___

Logged By cpb | Date & Time 4-20-11 1300

VENDOR PACE PO #146146 | Cooler Temp (C) 1.6

SAMPLE PROGRAM: Ground Water √ | NPDES ___ | Drinking Water ___ | UST ___ | RCRA Waste ___

MR #

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DISTRIBUTION: ORIGINAL to LAB, COPY to CLIENT

Customer must Complete

1)Project Name: *BELEWS CREEK LANDFILL - PINE HALL Permit #85-03*		2)Phone No: 875-5257
3)Client: C Campbell / T Hunsucker / Ed Sullivan		4)Fax No:875-4349
5)Business Unit: 20003	6)Process: BENVWS	7)Resp. To: BC00
8)Project ID:	9)Activity ID:	10)Mail Code: MGO3A3

Customer to complete all appropriate NON-SHADED areas.

[15]Preserv.: 1=HCL 2=H_2SO_4 3=HNO_3 4=Ice 5=None

[16]Analyses Required

Customer to complete appropriate columns to right

LAB USE ONLY [11]Lab ID	[12]Chem Desktop No.	[13]Sample Description or ID	[14]Collection Information Date	Time	Signature	[17]Comp.	[18]Grab	NO3-N, Cl, F, SO4, ALK, LAB pH (4)	MET - (Ag, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sb, Tl, V, Zn) (3)	TOC (2, 4)	TDS (4)	BOD (4)	TOX (2, 4)	COD (2, 4)	Hg (3)	8260 (see attachment for compounds) (1, 4)	Chlorine (ppm) P	[20]Total # of Containers
2011008434		TRIP BLANK	4/18/11	1345	VDC		X									3	n/a	3
2011008339		MW-1	4/19/11	1115	RLW		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008425		MW-1D	4/20/11	0750	RLW		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008426		MW-2	4/19/11	0850	RLW		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008427		MW-3	4/19/11	0750	RLW		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008428		MW-4	4/20/11	0915	VDC		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008429		MW-5	4/19/11	1410	RLW		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008430		MW-6	4/19/11	1010	RLW		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008431		MW-7	4/19/11	1435	VDC		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008432		MW2-7	4/19/11	0835	VDC		X	1	1	1	1	1	1	1	1	3	Ø	11
2011008433		MW2-9	4/20/11	0700	VDC		X	1	1	1	1	1	1	1	1	3	Ø	11

Customer to sign & date below

21)Relinquished By: LD Sell	Date/Time 4/19/11 1720	Accepted By:	Date/Time
Relinquished By: LD Sell	Date/Time 4/20/11 1240	Accepted By: L. Adams	Date/Time 4/20/11 1240
Relinquished By: Cindy Knox	Date/Time 4-20-11 1453	Accepted By: [illegible]	Date/Time 4/20/11 1453
23)Seal/Locked By	Date/Time	Sealed/Lock Opened By	Date/Time

24)Comments: SEE ATTACHMENT FOR LIST OF REQUIRED 8260 COMPOUNDS NEEDED. NOTE: As, Cd, Co, Pb, Sb, Se, Tl, V - analyzed by IMS (Tl by lowlevel to 0.2 ug/L) - All other metals analyzed by ICP.

Regulatory Agency : NCDENR/DWM -SW Section - State EDD Format Required

Customer, important please indicate desired turnaround

[22]Requested Turnaround

14 Days ___√___

*7 Days _____

*48 Hr _____

*Other _____ * Add. Cost Will Apply

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Duke Energy

For Detailed Instructions, see:
http://dewww/essenv/coc/

Duke Energy Analytical Lab Services

Mail Code MGO3A2 (Building 7405)
13339 Hagers Ferry Rd
Huntersville, N. C. 28078
(704) 87

Analytical Laboratory Use Only

ORDER J11040300 | MATRIX GW_RCRA | Samples Originating From NC √ SC ___

Logged By: Cpk | Date & Time: 4-20-11 1300

VENDOR

SAMPLE PROGRAM: Ground Water √ | NPDES ___ | Drinking Water ___ | UST ___ | RCRA Waste ___

Cooler Temp (C)

PO #

MR #

[19]Page 2 of 2

DISTRIBUTION
ORIGINAL to LAB, COPY to CLIENT

Customer must Complete

1)Project Name: *BELEWS CREEK LANDFILL - PINE HALL Permit #85-03* | 2)Phone No: 875-5257

3)Client: C Campbell / T Hunsucker / Ed Sullivan | 4)Fax No:875-4349

5)Business Unit: 20003 | 6)Process: BENVWS | 7)Resp. To: BC00

8)Project ID: | 9)Activity ID: | 10)Mail Code: MGO3A3

Customer to complete all appropriate NON-SHADED areas.

[15]Preserv.:1=HCL 2=H_2SO_4 3=HNO_3 4=Ice 5=None

[16]Analyses Required

LAB USE ONLY [11]Lab ID	[12]Chem Desktop No.	[13]Sample Description or ID	[14]Collection Information Date	Time	Signature	[17]Comp.	[18]Grab	NO3-N, Cl, F, SO4, ALK, LAB pH (4)	MET - (Ag, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Sb, Tl, V, Zn) (3)	TOC (2, 4)	TDS (4)	BOD (4)	TOX (2, 4)	COD (2, 4)	Hg (3)	8260 (see attachment for compounds) (1, 4)	Chlorine (ppm)	[20]Total # of Containers
2011008435		OB-4	4/19/11	1325	VDC		X	1	1	1	1	1	1	1	1	3	~~0~~	11
2011008436		OB-5	4/20/11	0805	VDC		X	1	1	1	1	1	1	1	1	3	~~0~~	11
2011008437		OB-9	4/19/11	1035	VDC		X	1	1	1	1	1	1	1	1	3	~~0~~	11
2011008438		SW-1A	4/19/11	0855	VDC		X	1	1	1	1	1	1	1	1	3	~~0~~	11
2011008439		SW-2	4/19/11	0935	VDC		X	1	1	1	1	1	1	1	1	3	~~0~~	11
2011008440		FIELD BLANK	4/20/11	1005	VDC		X	1	1	1			1	1	1	3	n/a	9

Customer to complete appropriate columns to right

Customer to sign & date below

21)Relinquished By: L D Gill	Date/Time: 4/19/11 1720	Accepted By:	Date/Time
Relinquished By: L D Gill	Date/Time: 4/20/11 1240	Accepted By: K. Davis	Date/Time: 4/20/11 1240
Relinquished By: Cindy Knox	Date/Time: 4-20-11 1453	Accepted By: [signature] / Pace	Date/Time: 4/20/11 1453
23)Seal/Locked By	Date/Time	Sealed/Lock Opened By	Date/Time

24)Comments: SEE ATTACHMENT FOR LIST OF REQUIRED 8260 COMPOUNDS NEEDED. NOTE: As, Cd, Co, Pb, Sb, Se, Tl, V - analyzed by IMS (Tl by lowlevel to 0.2 ug/L) - All other metals analyzed by ICP.

Regulatory Agency : NCDENR/DWM -SW Section - State EDD Format Required

Customer, important please indicate desired turnaround

[22]Requested Turnaround

14 Days ___√___

*7 Days _____

*48 Hr _____

*Other _____ * Add. Cost Will Apply