

Date: March 13, 2017

From: Nick Torrey, Southern Environmental Law Center

To: Chapel Hill Town Council

Re: Contaminated Coal Ash Site at Chapel Hill Police Station Property

On behalf of Friends of Bolin Creek, the Southern Environmental Law Center submits the following comments and documents regarding the Town's Phase II Remedial Investigation Report ("the report"). The report confirms several disturbing facts about the coal ash dump site directly above the public greenway and Bolin Creek:

- **There is a coal ash cliff over 40 feet high that is eroding coal ash and toxic pollutants down to the public greenway.** All of this ash must be removed for the long-term health and safety of the public and the Bolin Creek ecosystem.
- **The coal ash pollution is contaminating soil along the greenway, groundwater, and Bolin Creek:**
 - **Soil:** the soil along the greenway contains elevated levels of coal ash pollutants. In the last round of sampling, arsenic of over five times the residential health-based soil level was found on the south side of the greenway, contrary to the statement on page 34 of the report that there were no impacts in this location.
 - **Groundwater:** high levels of many coal ash pollutants have been found in the groundwater at the site for years, and this study confirms the groundwater contamination remains significant. The groundwater at the site flows into Bolin Creek.
 - **Bolin Creek:** the coal ash site is contaminating Bolin Creek. Manganese levels are two to three times higher downstream from the site than upstream. In addition, elevated levels of manganese, cobalt, and barium were found in the downstream sediments of the creek.
- **There is also a serious discrepancy in the report.** The report claims the coal ash is separated from the groundwater. For example, figure 5 of the report shows a thin layer of ash at monitoring well MW-1 that is some 20 feet above the groundwater. However, the original well drilling log for MW-1 shows that the coal ash extends down ten feet *below* the water table, and that the layer of coal ash is 31 feet thick. *See* 2013 Well Construction Record, attached. This directly contradicts what is shown in the current report (fig. 5 is attached for reference). The Town must determine the true depth of the coal ash relative to the groundwater in order to understand the risks from ongoing pollution in this location.



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2986-A

1. WELL CONTRACTOR:

Landa M. Shaver
 Well Contractor (Individual) Name
American Environmental Drilling, Inc.
 Well Contractor Company Name
324 Fields Drive, Suite C
 Street Address
Aberdeen NC 28315
 City or Town State Zip Code
(910)-944-3140
 Area code- Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT # MW #1
 OTHER ASSOCIATED PERMIT #(if applicable) _____
 SITE WELL ID #(if applicable) _____

3. WELL USE (Check Applicable Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____

DATE DRILLED 4/29/2013

4. WELL LOCATION:

828 Martin Luther King Blvd. 27599
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: Chapel Hill COUNTY Orange

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other _____

LATITUDE 35° 55' 602 " DMS OR 3X.XXXXXXXXXX DD
 LONGITUDE 79° 03' 194 " DMS OR 7X.XXXXXXXXXX DD

Latitude/longitude source: GPS Topographic map (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY- is the name of the business where the well is located.

Chapel Hill Police Dept.
 Facility Name Facility ID #(if applicable) _____
828 Martin Luther King Blvd
 Street Address
Chapel Hill NC 27599
 City or Town State Zip Code

Contact Name _____

Mailing Address _____

City or Town State Zip Code _____

Area code - Phone number _____

6. WELL DETAILS:

a. TOTAL DEPTH: 40

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS -.06 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm) N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top <u>30</u>	Bottom <u>40</u>	Top _____	Bottom _____
Top _____	Bottom _____	Top _____	Bottom _____
Top _____	Bottom _____	Top _____	Bottom _____

7. CASING:	Depth	Diameter	Weight	Material
Top <u>-.06</u>	Bottom <u>30'</u>	Ft. <u>2"</u>	<u>SCH40</u>	<u>PVC</u>
Top _____	Bottom _____	Ft. _____	_____	_____
Top _____	Bottom _____	Ft. _____	_____	_____

8. GROUT:	Depth	Material	Method
Top <u>26'</u>	Bottom <u>28'</u>	Ft. <u>Bentonite</u>	<u>Tremie</u>
Top <u>-.06</u>	Bottom <u>26'</u>	Ft. <u>Portland</u>	<u>Tremie</u>
Top _____	Bottom _____	Ft. _____	_____

9. SCREEN:	Depth	Diameter	Slot Size	Material
Top <u>30'</u>	Bottom <u>40'</u>	Ft. <u>2"</u>	in. <u>.010</u>	in. <u>PVC</u>
Top _____	Bottom _____	Ft. _____	in. _____	in. _____
Top _____	Bottom _____	Ft. _____	in. _____	in. _____

10. SAND/GRAVEL PACK:	Depth	Size	Material
Top <u>28'</u>	Bottom <u>40'</u>	Ft. <u>#3</u>	<u>Sand</u>
Top _____	Bottom _____	Ft. _____	_____
Top _____	Bottom _____	Ft. _____	_____

11. DRILLING LOG: Top Bottom Formation Description

0'	/ 5'	Top Soil
5'	/ 9'	Fill
9'	/ 40'	Black Ash
/	/	
/	/	
/	/	
/	/	
/	/	
/	/	

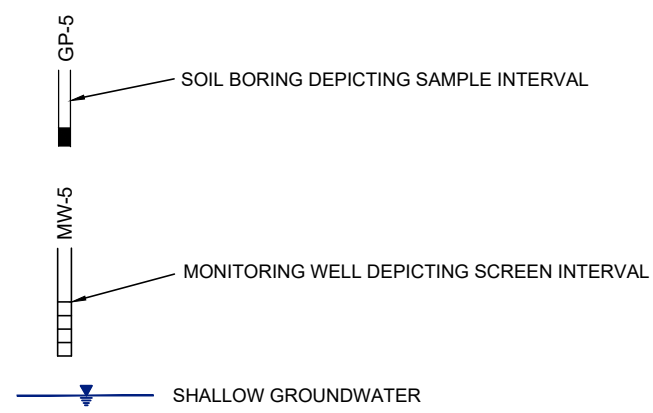
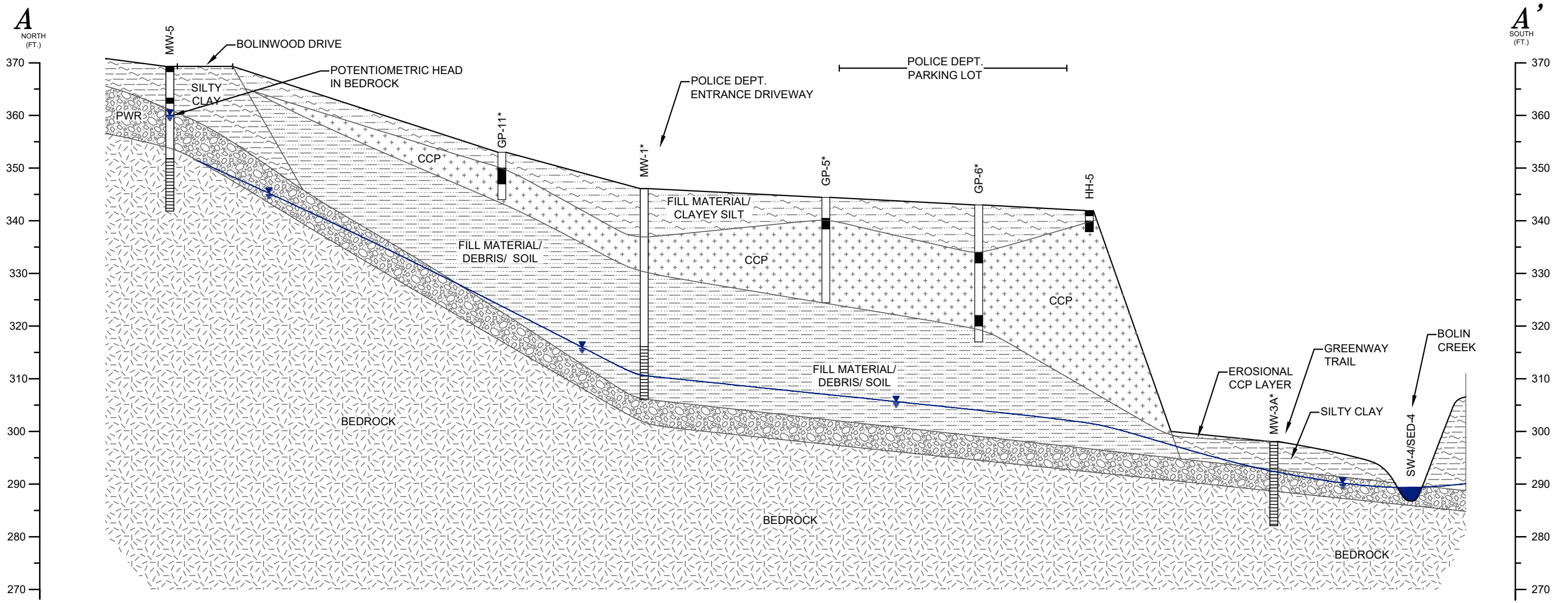
12. REMARKS

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Landa M. Shaver
 SIGNATURE OF CERTIFIED WELL CONTRACTOR

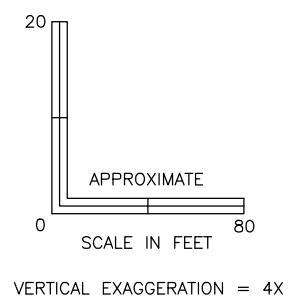
4/30/2013
DATE

Landa M. Shaver
PRINTED NAME OF PERSON CONSTRUCTING THE WELL



LEGEND

	SILTY CLAY
	FILL MATERIAL/ CLAYEY SILT
	COAL COMBUSTION PRODUCTS (CCPs)
	FILL MATERIAL/ DEBRIS/ SOIL
	PARTIALLY WEATHERED ROCK (PWR)
	BEDROCK



- NOTES:**
1. REFER TO FIGURE 4 OF THIS REPORT FOR CROSS-SECTION TRANSECT.
 2. MW-5 BRACKETS BEDROCK FRACTURE.
 3. * INDICATES BORING/ MONITORING WELL INSTALLED BY FALCON ENGINEERING, INC.

TITLE	CROSS-SECTION A-A'	
PROJECT	TOWN OF CHAPEL HILL POLICE DEPARTMENT PROPERTY CHAPEL HILL, NORTH CAROLINA	
		2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology
DATE: 1-12-17	REVISION NO. 0	
JOB NO. TCH-002	FIGURE NO. 5	

S:\AAA-Master Projects\Town of Chapel Hill (TCH)\TCH-002 - Police Station\Ph II RI Work\Figures\Cross-Section.dwg, FIG. 5, 1/12/2017 3:23:21 PM, zbarlow