



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

JAMES B. HUNT JR.
GOVERNOR

May 22, 2000

BILL HOLMAN
SECRETARY

Mr. Robert Hunter
Division Solid Waste Director
30 Valley St.
Asheville, NC 28801

Fac/Perm/Co ID #	Date	Doc ID#
11-07	10/10/2000	DIN 1534

WILLIAM L. MEYER
DIRECTOR

RE: Permit Amendment Application, Cells 4 and 5 - Permit # 11-07.

Dear Mr. Hunter,

A preliminary review has been completed by the Solid Waste Section for the hydrogeologic evaluation presented in the Buncombe County Permit Amendment Application for cells 4 and 5. Please have your consultant respond to the comments and questions, which need to be addressed.

The locations of borings B-502A, B-503A, B-509B and B-514B were omitted from sheet 2-1. Provide an updated sheet 2-1 that includes these borings.

Page 14 states 18 borings were completed using air rotary drilling without providing information to state where the drilling commenced, at ground surface or auger refusal. This information is critical in accurately understanding the bedrock elevations and providing reasonable top of rock contour drawings.

Provide the abandonment record for boring B-514. The text indicates the boring was completed to a depth of 160 feet below ground surface and was abandoned. All other piezometers located in cells 4 and 5 must also be abandoned prior to construction and a copy submitted the hydrogeologist assigned to this project.

The boring locations and top of rock elevations were omitted from Sheet 3-3. Provide an updated sheet in order to comply with Rule 15A NCAC 3B.1623(b)(2)(F).

Cross-sections provided address cell 4, however, cross-section D-D' appears to be beyond the boundary of cell 5 and cross-section C-C' only covers a small portion of cell 5. Cell 5 has a level and wide potentiometric surface that a cross-section would help provide a visual interpretation of this feature.



The data provided only indicates a downward vertical gradient of groundwater flow in the cell 4 and 5 area. What information has been gathered, if any exists, to demonstrate any areas of discharge for this phase?

Boring logs B-247spt, and B-248spt were omitted from Appendix A. Please provide copies of these logs.

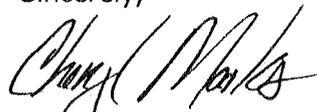
Boring B-513 shows auger refusal at a depth of forty-three feet and the bottom of the piezometer at a depth of thirty-nine feet. How was the four feet of annular space filled? How accurate is the slug test from the piezometer constructed four feet above the base of the bottom of the boring?

Table 2-2 summarizes the recorded time of the falling and rising head slug tests performed. Wells B-502, B-503A, and B-513 have a large disparity in the recorded time between the falling head and rising head slug tests. Slugs tests performed in fractures generally underestimate the hydraulic conductivity. Explain which value is more accurate for the given geologic setting. Should the values be averaged for these wells? The information recorded from the data logger was omitted from Appendix C. Please provide this information.

A portion of cell 5 appears to be on a groundwater divide. Pump tests performed in the two hollows within cells 1 through 5 may not be representative for the other side of the groundwater divide. Cells on the other side of the groundwater divide will require pump tests for an alternative liner demonstration.

Please call me at (919) 733-0692, extension 346, if you have any questions or concerns regarding this letter.

Sincerely,



Cheryl Marks
Hydrogeologist
Solid Waste Section

cc: James Coffey, Supervisor
Bill Sessoms, Engineer