



December 22, 2008

Mrs. Elizabeth Werner
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
Mail Service Center 1646
Raleigh, NC 27699-1646

**RE: Work Plan for Installation of Piezometers
Proposed C&D Landfill Unit
Dunn-Erwin Landfill
Permit 43-02
Harnett County, North Carolina**

Dear Mrs. Werner:

On behalf of Harnett County, C. T. Clayton, Sr., P.E., Inc. (CTC) is pleased to herewith submit a work plan for the installation of 2 new piezometers associated with permitting of a new C&D Landfill Unit at the Dunn Erwin Landfill.

Introduction

The attached map shows the location of these planned piezometers. The proposed piezometers will contain a 1-inch diameter casing and screen which will be installed to utilize these borings for ground water table elevation readings over the next few months. These proposed borings are labeled as P-PZ on the attached map.

Description of Field Work

The installation of these piezometers will be completed utilizing either a truck mounted or ATV type drill rig. The drill rig will utilize a hollow stem augers and a split spoon sampler to retrieve in-situ samples of the soil strata. All borings will be advanced to a depth at which the upper confining layer is encountered.

**P. O. Box 578
Coats, NC 27521**
Phone: 910-897-7070
Fax: 910-897-6767

*Offices located in Coats and New Bern, North Carolina
www.ctclayton.com*

Per the Solid Waste Management Rules 15A NCAC 13.B.0538 (a) (4), the following data and/or laboratory tests will be conducted on numerous selected representative soil samples collected:

- a. standard penetration - resistance;
- b. particle size analysis;
- c. soil classification - USCS;
- d. saturated hydraulic conductivity (or by in-situ);
- e. volume percent water;
- f. porosity;

It is our intention to let the existing PZ-44D (see attached map) serve as the required 50 foot boring. The boring data for PZ-44D along with the various laboratory test completed on the existing Geoprobe borings (labeled GP-? or GP-?-W on the attached map), monitoring wells MW-11 through MW-15 installed in 2005, and those to be conducted on the proposed piezometer borings will provide an adequate quantification of the upper hydrological units that will be a factor in the siting and design of the proposed C&D unit.

Upon completion of the borings and sampling, each bore hole will have a 1-inch diameter casing or screen installed and finished per the NC Monitoring Well Standards. Actual depth of installation of the screened interval will be determined in the field during the installation based on visual classification of the soils recovered from the split spoon sampling.

Piezometer installation records, soil boring logs, soil analysis results and sample analysis results will be included in the Geologic and Hydrologic Study generated for inclusion into the Site and Construction Application for the Proposed C&D Unit. Prior to submission of the Application, a draft copy of the Geologic and Hydrologic Study will be forwarded to you for review and comment. This report will be a joint effort between C. T. Clayton, Sr., P. E., and Geologix (Robert Livermon, P. G.)

Schedule and Conclusion

Currently, this work has been scheduled to be completed sometime between January 5, 2008 and January 23, 2009. If at all possible, we would like for you to make a site visit to discuss the permitting of the next cell at the Dunn/Erwin C&D Landfill prior to the January 5, 2008 planned start of the work.

Also, we would like to inquire if I, as a Registered Professional Engineer, having a detailed understanding of the groundwater hydrology and subsurface geology of the site, will be acceptable to supervise the drilling and piezometer/well installation.

Should you have any questions or comments, please contact me at the telephone numbers on the previous page or by e-mail at tyrus@ctclayton.com. We look forward to hearing from you soon.

Sincerely,



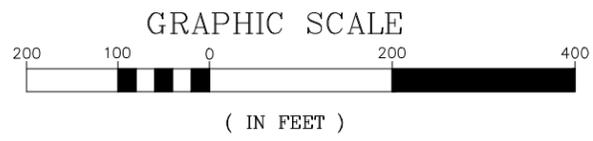
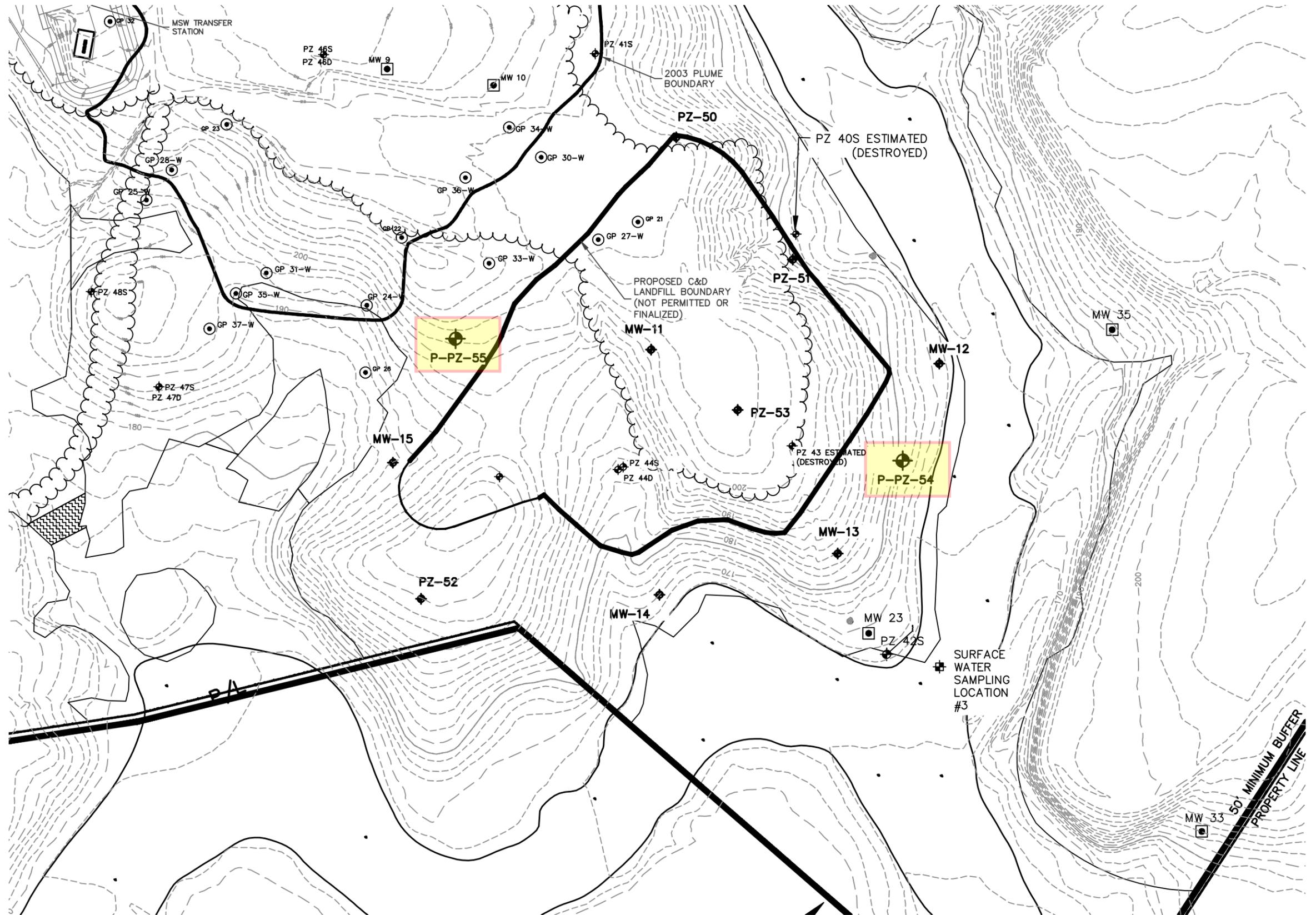
C. Tyrus Clayton, Jr., P. E.

cc: C. T. Clayton, Sr., P. E.

/attachment

LEGEND

- 210 EXISTING CONTOURS
- 190 AVERAGE GRONDWATER CONTOURS
- 2003 EXTENT OF PLUME
- LIMITS OF WASTE
- GP 21 GEOPROBE BORING (NO WELL INSTALLED)
- GP 30W GEOPROBE WELL
- PZ 46S EXISTING PIEZOMETER
- MW 9 EXISTING MONITORING WELL
- P-PZ-55 PROPOSED PIEZOMETER



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**DUNN-ERWIN LANDFILL
PIEZOMETER WORK PLAN
HARNETT COUNTY, NC.**

Date: 12/12/2008		Sheet Title: PIEZOMETER LOCATION MAP	
Project #: 030025		Scale: 1" = 100'	
Drawn By: SBK	Designed By: CTC JR.	Proj. Eng.: RS	1
Checked By: RS	File Name: 8005BORINGWATER		