

7407Permit2002 - Batch No. ____

74-07-2002

7

North Carolina
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

December 16, 2002

Mr. Judson Whitehurst, President
C&D Landfill, Inc.
802 Recycling Lane
Greenville, North Carolina 27834

Subject: Solid Waste Permit No. 74-07
C&D Landfill, Inc. Construction and Demolition(C&D) Landfill
Highway 264, Pactolus Township, Greenville, Pitt County, North Carolina.
Modification #3: PTO request for Cells 1 thru 8, Phase 1A

Dear Mr. Whitehurst:

The referenced revised PERMIT TO OPERATE is issued in accordance with N.C.G.S. 130A-294 and the N.C. Solid Waste Management Rules, 15A NCAC 13B, .0201(b)(1). Enclosed is attachment 1, which lists documents included in the Approved Plan. The approved facility description includes the area described in the attached legal description. Within the approved facility, the initial operating area is Phase 1A (Cells 1 thru 8, for the first five year phase) is permitted to receive construction and demolition waste as shown on Drawing 2 of 9 (Site Plans), consistent with drawings dated 10 November 2002 and received 12 November 2002.

This permit is for the operation of the first five-year phase (Phase 1A, Cells 1 thru 8) consistent with Drawing 2 of 9 Phase 1A excavation and Drawing 5 of 9 cross sections of the approved plans. At the end of the first five-year operational period, C&D Landfill, Inc. may apply for an expansion into and operation of the vertical phase, but will be subject to all rules in effect at that time. This permit is issued to C&D Landfill, Inc. as the owner and operator of the facility.

Please refer to the GENERAL Conditions of this permit for recordation procedures, the definition of the approved plan, and for general terms of the Solid Waste Permit. The CONSTRUCTION AND OPERATION conditions describe permitted fill areas, acceptable waste types, landfill operation, and requirements which must be satisfied prior to operation of the facility as a Construction & Demolition landfill. Specific requirements for groundwater monitoring and facility record keeping and reporting are described in the MONITORING AND REPORTING conditions.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us/

Mr. Whitehurst
Page 2
December 16, 2002

Please review the Conditions of Permit thoroughly, especially the following specific conditions:

- A. In accordance with Monitoring and Reporting Requirement No. 13(e) groundwater quality monitoring wells must be installed and sampled prior to accepting waste at this landfill and on a semi-annual basis thereafter. Please consult with Ms. Ellen Lorscheider, Solid Waste Section Project Hydrogeologist at (919) 733-0692, Ext. 345 if you have any questions about long term groundwater monitoring at this site.

Again, please review the Conditions of Permit thoroughly and contact me if you have any questions or if you require further clarification. Mr. Chuck Boyette is the Solid Waste Section Waste Management Specialist for this area and can be contacted at the DENR Washington Regional Office by phone at (252) 946-6481. Jim Barber can be contacted at the Raleigh Central Office at (919) 733-0692 Extension 255.

Respectfully,


Jim Barber
Permitting Supervisor
Solid Waste Section

cc: Mark Fry
Chuck Boyette
John Tucker
✓ Raleigh Central File: Pitt County; 74-07 Permit File

PERMIT NO.: 74-07
DATE ISSUED(PTC): 04/26/01
DATE ISSUED(PTO): 05/29/01
MODIFICATION #3(PTO): 12/16/02

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
1646 MAIL SERVICE CENTER; RALEIGH, NC 27699-1646

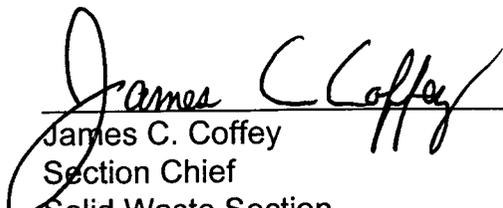
SOLID WASTE PERMIT

C&D LANDFILL INCORPORATED

is hereby issued a PERMIT TO OPERATE a

Construction and Demolition Landfill unit, PHASE 1A (Cells 1 thru 8)

located on the south side of Highway 264 in Pactolus Township, Pitt County, North Carolina 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 facility is located and described by the legal description of the site included with this permit and further identified on the deed recorded for this property in Book: 1098 and Page(s): 156 - 158 in the Pitt County Register of Deeds for C&D Landfill, Inc..


James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

PERMIT NO.: 74-07
DATE ISSUED(PTC): 04/26/01
DATE ISSUED(PTO): 05/29/01
MODIFICATION #3(PTO): 12/16/02

SOLID WASTE PERMIT
PERMIT TO OPERATE
C&D LANDFILL INCORPORATED

A Construction and Demolition Debris Landfill Unit - PHASE 1A: CELLS 1 thru 8

CONDITIONS OF PERMIT:

GENERAL

1. This PERMIT TO OPERATE will be in effect for FIVE YEARS from the original date of issuance (29 May 2006) and will be reviewed, every five years in accordance with 15A NCAC 13B .0201(c), under rules in effect at the time of review. Modifications to the facility may be required in accordance with rules in effect at the time of review. This permit shall not be effective unless the PERMIT TO CONSTRUCT along with the certified copy is filed in the Register of Deeds Office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy shall be returned to the Solid Waste Section and shall have indicated on it the page, book number, date of recordation and the Register's seal. The permit to construct, issued 4/26/01, was recorded in Deed Book: 1162 and Pages: 0129 - 0138.

When this property is sold, leased, transferred or conveyed, 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.

2. The approved plan is described by Attachment 1, "List of Documents for Approved Plan". Where discrepancies may exist, the most recent submittal and the Conditions of Permit shall govern. Some components of the approved plan are reiterated in the Conditions of Permit.
3. This permit is not transferable.
4. This facility may receive waste that is generated within the service area described in the franchise application approved by Pitt County and includes the following counties: Pitt, Beaufort, Pamlico, Craven, Lenoir, Greene, Jones, Wayne, Wilson, Nash, Edgecombe, Halifax, Northampton, Bertie, Martin, Chowan, Washington, Tyrrell and Hyde.

5. This permit is for the operation of the C&D Landfill, Inc.(CDLI) Construction and Demolition(C&D) Landfill unit denoted as Phase 1A: CELLS 1 thru 8 in accordance with the approved site plan drawing 2 of 9 dated 9 March 2001(received 26 August 2002), and the as-built record drawing 2 of 9 dated 10 November 2002(received 12 November 2002). Groundwater monitoring wells MW-9s and MW-9d have been constructed and installed in accordance with the approved plans per certification document dated 2 December 2002 from David Garrett, P.G., P.E..
6. All sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4 and/or local programs delegated authority by the Div. of Land Resources. Native vegetation shall be established on the completed C&D landfill unit in accordance with 15A NCAC 13B .0505 (3)(b)(c).
7. The following requirements shall be met prior to and during operation of this C&D unit,(i.e. Prior to the issuance of a future PERMITS TO OPERATE):
 - a. C&D unit preparation shall be in accordance with the construction plan, sheet 2 of 9, and the conditions specified herein and construction shall be certified by the design engineer to be constructed in accordance with the approved plans.
 - b. C&D unit inspection shall be made by a representative of the Division of Waste Management (DWM) with the owner/operator.
 - c. Signs shall be posted at the entrance(at or near U.S. Highway 264) of the C&D Landfill Inc., in accordance with the Access and Safety Requirements under Operation Condition .0505(8).
 - d. Groundwater monitoring wells (see Monitoring and Reporting Requirements) shall be installed consistent with condition 13(a) thru (g). A baseline sampling for water quality shall be performed. Well construction records, soil boring logs and sample analysis results shall be submitted to the Section Hydrogeologist for review and approval prior to operation of the C&D unit.
 - e. Inspection and certification of the PHASE 1A subgrade, by the project hydrogeologist, to determine if subgrade conditions are consistent with the observations made during the initial site investigations and information provided in the site hydrogeology report. If conditions found are different than conditions stated in the hydrogeologic report or that would impact or have an effect on the proposed ground water monitoring system; then a revised ground watering monitoring plan will be required.

OPERATION:

8. This C&D unit is permitted to receive the following waste types:

- a. Land-clearing debris as defined in G.S. 130A-290, specifically, solid waste which is generated solely from land-clearing activities, such as stumps, trees, etc.;
- b. Inert debris defined as solid waste which consists solely of material that is virtually inert, such as brick, concrete, rock and clean soil; and
- c. Asphalt in accordance with G.S. 130-294(m).
- d. Construction and demolition debris defined as solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures.

Yard trash as defined in G.S. 130A-290, shall not be disposed in the landfill area. However, yard trash, along with land-clearing debris, may be accepted for processing in the Yard Waste Composting Area or disposed of in a LCID landfill.

9. Operation of the C&D landfill unit shall conform to the operating procedures described in the approved plan, in accordance with Section .0505 of the Solid Waste Management Rules, and in accordance with the following requirements:

Waste Acceptance and Disposal

- a. The C&D unit shall accept only those solid wastes which it is permitted to receive as outlined in condition 8.
- b. No municipal solid waste, hazardous waste, or liquid waste shall be accepted for disposal in the C&D unit.
- c. The permittee shall implement a program for the C&D unit for detecting and preventing the disposal of MSW, hazardous or liquid wastes. The program shall include, at a minimum:
 - (I) Random inspections of incoming loads or other comparable procedures;
 - (ii) Records of any inspections;
 - (iii) Training of personnel to recognize hazardous and liquid wastes;
 - (iv) Development of a contingency plan to properly manage any identified hazardous, liquid or MSW wastes; The plan must address identification, removal, storage, and final disposition of waste.

Cover Material Requirements

- d. Operational soil cover of at least six inches shall be placed at least once per week or when the active area reaches ½ acre in size, or more often as necessitated by the nature of the waste, as to prevent the site from becoming a visual nuisance and to prevent fire, windblown materials, vectors, or excessive water infiltration.
 - (I) Alternate cover consisting of 6" of soil, ground mulch and sheetrock can be used in lieu of 6" of soil solely, as addressed in the demonstration documented by letter dated 10 October 2002;
 - (II) If one component of the three proposed is not available, then a 50% soil mixture shall be used at a minimum with the sheetrock or ground mulch and at no time will only ground mulch and sheetrock be used without soil;
 - (III) Soil borrow shall come from on-site property or the Lewis mine, adjacent to the site.

- e. Areas which will not have additional waste placed on them for 12 months or more, but where final termination of operations has not occurred, shall be covered with a minimum of one foot of soil cover [15A NCAC 13B .0505(3)(b)].
- f. After final termination of disposal operations at the C&D unit or major part thereof, or upon revocation of a permit, the fill areas shall be covered with at least two feet of suitable compacted earth [15A NCAC 13B .0505(3)(c)] or a cap as specified by the rules in effect at the time of closure.

Access and Safety

- g. The C&D unit shall be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the DWM to prevent unauthorized entry.
- h. An attendant shall be on duty at the CDLI landfill at all times while it is open for public use to ensure compliance with operational requirements.
- i. The access road from U.S. Highway 264 to the C&D unit shall be of all-weather construction and maintained in good condition.
- j. Dust control measures shall be implemented when necessary.
- k. Signs providing information on dumping procedures, the hours of operation, the permit number, and other pertinent information shall be posted at the entrance to the CDLI landfill.
- l. Signs shall be posted stating that no MSW, hazardous waste or liquid waste can be received in the C&D unit.
- m. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
- n. The removal of solid waste from the facility is prohibited unless the owner/operator approves and the removal is not performed on the working face. If C&D recycling is to take place in the future; amendment of the operations plan shall be submitted to the Solid Waste Section for approval.
- o. Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein, except fiber drums containing asbestos. Asbestos waste shall be managed in accordance with 40 CFR 61.
- p. Open burning of solid waste is prohibited. Fires shall be reported to the Solid Waste Section by phone within 24 hours of an incident and written notification shall be submitted within 14 working days addressing the events at the site and future actions to be taken in the future to avoid and or mitigate potential fire hazards.
- q. The concentration of explosive gases generated by the C&D unit shall not exceed:

- i. twenty-five percent of the lower explosive limit(1.25% of CH₄) for gases in site structures (excluding gas control or recovery system components if necessary; and
- ii. One hundred percent of the lower explosive limit(5% CH₄) for gases at the property boundary. Installation of permanent gas monitoring wells may be required in the future to demonstrate compliance.

Erosion and Sedimentation Control

- r. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site of the C&D unit.
- s. Adequate sedimentation and erosion control measures shall be practiced to prevent excessive on-site erosion.
- t. Provisions for a vegetative ground cover sufficient to restrain erosion must be accomplished within 30 working days or 120 calendar days upon completion of any phase of C&D landfill unit development or as addressed in the approved Sedimentation and Erosion Control permit.

Drainage Control and Water Protection Requirements

- u. Surface water shall be diverted from the operational area.
 - v. Surface water shall not be impounded over or in waste.
 - w. A separation distance of at least four feet shall be maintained between the C&D waste and the groundwater table; as addressed in the site suitability application, hydrologic assessment section.
 - x. Solid waste(C&D) shall not be disposed of in water.
 - y. Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to discharge of leachate to surface waters and or for land disturbing activities greater than one acre.
10. All pertinent landfill operating personnel will receive training and supervision necessary to properly operate this C&D landfill unit in accordance with G.S. 130A-309.25 and addressed by memorandum dated 29 November 2000.
 11. Ground water quality for the C&D landfill unit is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B.
 12. A closure and post-closure plan must be submitted for approval at least 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 shall address the following:
 - a. Design of a final cover system as required by 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;
- c. Surface water, ground water, and explosive gas monitoring.

MONITORING AND REPORTING REQUIREMENTS

13. Ground-water monitoring wells and monitoring requirements for the CDLI landfill unit:
- a. Monitoring well design and construction shall conform to the specifications outlined in, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities-DRAFT" and water quality sampling and analysis shall be done in accordance with Construction and Demolition landfills and Closed Sanitary Landfills
 - b. A total of eleven locations for ground water wells(MW-1d, MW-1s, MW-2d, MW-2s, MW-4 thru MW-8 and MW-9s & MW-9d) and three surface water locations(SW-1, SW-2, & SW-3) [in accordance with the approved revised Groundwater Monitoring Plan dated March 2001, updated November 2002 from David Garrett, P.G., P.E.] as outlined on page 13 of the water quality monitoring plan located in the permit to construct application.
 - c. A geologist shall be in the field to supervise well installation. The exact locations, screened intervals, and nesting of the wells shall be established after consultation with the SWS Hydrogeologist at the time of well installation.
 - d. For each monitoring well constructed, a well completion record shall be submitted to DWM within 30 days upon completion.
 - e. Prior to the acceptance of any waste at the C&D unit, a baseline sampling event shall be completed and analysis submitted to the SWS Hydrogeologist.
 - f. Sampling equipment, procedures, and parameters shall conform to specifications outlined in the above-referenced guidance document,[Monitoring and Reporting Requirements, condition 13(a) pg. 9] or the current guidelines established by DWM at the time of sampling.
 - g. In order to determine ground-water flow directions and rates, each monitoring well shall be surveyed, and hydraulic conductivity values and effective porosity values shall be established for the screened intervals for each monitoring well.
 - h. The permittee shall sample the monitoring wells semi-annually or as directed by the SWS Hydrogeologist. In addition to the wells described in condition 13(b); surface water locations SW-1, SW-2 and SW-3 shall, as shown on the revised Groundwater Monitoring Plan dated 29 March 2001, updated 2 April 2001, also be sampled semi-annually as part of the monitoring system.
 - i. A readily accessible unobstructed path shall be initially cleared and maintained so that four-wheel drive vehicles may access the monitoring wells at all times.

14. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the analytical data for each water quality monitoring sampling event shall be submitted to DWM in a timely manner.
15. The permittee shall maintain a record of the amount of solid waste received at the C&D unit, compiled on a monthly basis. Scales shall be used to weigh the amount of waste received.
16. On or before 01 August 2003, and each year thereafter, the permittee shall report the amount of waste received (in tons) at the C&D unit and disposed of in the C&D landfill unit to the Solid Waste Section and to all counties from which waste was accepted, on forms prescribed by the Section. This report shall include the following information:
 - a. The reporting period shall be for the previous year, beginning 01 July and ending on 30 June;
 - b. The amount of waste received and landfilled in tons, compiled on a monthly basis, and;
 - c. Documentation that a copy of the report has been forwarded to all counties from which waste was accepted.
17. All records shall be maintained on-site and made available to the SWS upon request, specifically records generated by conditions 10(c), 10(o), 9, 13, 14, 15 & 16.

ATTACHMENTS
C&D LANDFILL INC.
List of Documents for the Approved Plan

SITE SUITABILITY:

1. Conceptual Construction Plans for site suitability review dated 15 December 2000 and received 19 December 2000.
2. PART 1 - SITE SUITABILITY APPLICATION for C&D Landfill Inc. dated December 2000 and received 19 December 2000.
3. Letter dated 21 December 2000 from Thomas B. Robinson, Pitt County Manager, indicating that the Pitt County Board of Commissioners approved the franchise for C&D Landfill Inc.
4. Letter dated 16 January 2001 from Berry Gray addressing zoning.
5. Response to hydrogeologic comments, letter dated 15 February 2001 and revised drawing F4.
6. Additional site suitability information transmitted to the Section via letter dated 20 February 2001 with the following items;
 - a. Revised facility boundary survey drawing
 - b. FEMA FIRM map for that portion of Pitt County with C&D Landfill located
 - c. Letter dated 29 December 2000 from David Brook with NC Department of Cultural Resources
 - d. Letter dated 29 January 2001 from Michael P. Schafale with the Div. Of Parks and Recreation, Natural Heritage Program
 - e. APPLICATION FOR FRANCHISE TO OPERATE CONSTRUCTION AND DEMOLITION DEBRIS (C&D) LANDFILL dated 23 October 2000
 - f. Certified copy of Pitt County Commissioners meeting minutes dated 10 January 2001 from Susan J. Banks
 - g. Certified copy of Pitt County Commissioners meeting minutes dated 20 February 2001 from Susan J. Banks
 - h. Letter dated 18 January 2001 from Traci Belch addressing zoning.
7. Memorandum dated 28 February 2001 from Cheryl Marks indicating that the hydrogeologic aspects of the C&D Landfill Inc. site met site suitability.
8. Letter dated 1 March 2001 from Thomas B. Robinson, Pitt County Manager, addressing Pitt County's position on the approval of a franchise for C&D Landfill Inc. to include certification from Susan B. Banks and additional copies of the board minutes.

PERMIT TO CONSTRUCT:

9. Initial construction plans and construction application dated March 2000 and received 6 April 2000.
10. Revised pages to the Water Quality Monitoring plan dated 2 April 2001, received 2 April 2001.
11. Memorandum dated 25 April 2001 from David Garrett to Cheryl Marks addressing monitoring well placement based on hydrogeologic modeling.
12. Erosion and Sedimentation Control approval letter from Pitt County dated 26 April 2001, received 26 April 2001.
13. Updated Construction Plans and Construction application dated 25 April 2001, received 16 May 2001.
14. Letter dated 7 May 2001 from Cheryl Marks approving the monitoring plan, as part of the Permit to Construct application.
15. Revised site plan for the construction of cells 1 thru 8 and revisions to the operating height of Phase 1A.
16. Letter dated 23 August 2002 addressing the proposed construction changes and operational changes for C&D Landfill Inc.
17. Plan sheet 3 of 9 indicating the locations of existing and new monitoring locations at the facility.

PERMIT TO OPERATE:

18. Certification letter dated 29 May 2001 from John Tucker addressing construction excavation limits for PHASE 1A - Cell 1.
19. Record drawings of as-built conditions dated 29 May 2001, received 29 May 2001 for Phase 1A Cell 1 construction.
20. Revised Operations Manual for C&D Landfill Inc. dated May 2001, received 29 May 2001.
21. Certification letter dated 3 August 2001, received 8 August 2001, from John Tucker addressing construction excavation limits for PHASE 1A - Cells 2 & 3.
22. Record drawings of as-built conditions dated 3 August 2001, received 8 August 2001 for Phase 1A Cells 2 & 3.
23. Record drawings of as-built conditions dated 10 November 2002, received 12 November 2002 for Phase 1A Cells 5,6,7 & 8.
24. Construction certification letter dated 11 November 2002 from John Tucker.
25. Well installation certification document dated 2 December 2002 with a updated groundwater monitoring plan dated November 2002 from David Garrett, P.G., P.E..
26. Revised monitoring well drawing dated 4 December 2002 for the addition of wells MW-9s and MW-9d.

- Booklet -

74-07

Re: New Monitoring Well Completion and
Back Ground Water Quality Sampling
CND Landfill, Inc. (Phase 1 B)
Dec. 2nd, 2002

CF
74-07

David Garrett, P.G., P.E.
Engineering and Geology

December 2, 2002

Mr. Judson Whitehurst
C&D Landfill, Inc.
802 Recycling Lane
Greenville, NC 27834

DEC 2 2002
Department of
Environment
and Natural
Resources

APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
DATE 12/16/02 BY [Signature]
74-07

RE: New Monitoring Well Completion and
Background Water Quality Sampling
C&D Landfill, Inc. (Phase 1B)

Dear Mr. Whitehurst:

I am pleased to present this summary report of the installation of new water quality sampling locations pertaining to Phase 1B, including four new wells and one new surface sampling location. The addition of these sampling locations is a planned activity described in the approved Water Quality Monitoring Plan, due to the activation of the Phase 1B footprint. The new wells include MW-5, MW-8, MW-9s and MW-9d. The latter two wells replace the previously installed MW-3d and a planned MW-3s (not installed), as required due to a minor revision of the waste footprint.

Well installations were completed between November 15 and 19, 2002. Each well was installed under the supervision and direction of myself, in order to monitor the two aquifers identified in the earlier permitting studies. Each well was developed by purging at the time of completion and fitted with a locking steel cover. The wells were sampled on November 27, 2002, by Environment-1.

Wells MW-5, MW-8, and MW-9s monitor the shallower unconfined sand aquifer, which are likely post-glacial age fluvial sediments, existing above the top of a clay confining layer at depths of approximately 16 to 18 feet below the ground surface (b.g.s.). The confining layer is approximately 15 to 17 feet thick, extending to a depth of approximately 33 feet b.g.s. The confining layer is a deep marine sedimentary deposit, believed to represent the top of the Yorktown Formation.

Well MW-9s monitors the deeper silty sand aquifer that extends from approximately 33 feet b.g.s. to a depth of approximately 50 feet b.g.s., based on the drilling log for the earlier piezometer B-9. The aquifer is a clayey sand that exhibits numerous cemented zones, believed to be part of the Yorktown Formation or possibly the Castle Hayne Formation. This layer is cross-bedded with clay layers or lenses, based on the variation seen at these depths in the earlier test borings.

A new surface water sampling location, SW-3, was established down-gradient of the southwest corner of Phase 1 to monitor a slow moving stream located west of the Phase 1 footprint. This location was sampled on November 27, 2002, to provide background monitoring baseline data.

In addition, former piezometers left from the permitting studies within the Phase 1B footprint were abandoned in accordance with NC DENR Solid Waste requirements. The piezometers include B-5 (35 feet deep), B-9 (70 feet deep), B-14 (8 feet deep) and B-19 (10 feet deep). For the shallower piezometers, the 2-inch PVC piezometer casings were removed and the entire depth of the original borings were tremie-grouted as the casings were pulled or through the augers.

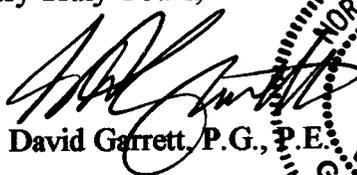
On B-9, the original boring was completed using rotary wash boring techniques (2-7/8 inch diameter drag bit), penetrating both upper and lower aquifers and the upper confining layer. Thus, the PVC casing was not pulled; rather, the casing was filled with grout by tremie pipe, then the upper 28 feet of casing was overdrilled and removed using a 3-1/4 inch diameter hollow-stem auger, then the new boring was tremie-grouted through the augers to seal the upper aquifer above the confining layer.

Please find attached test boring and installation records for the new monitoring wells and abandonment records for the former piezometers. Please also find a map showing the locations of the wells and piezometers, along with a revised version of the Water Quality Monitoring Plan. A report of the baseline sampling results will be furnished under separate cover when available.

Ground and surface water sampling is normally conducted on a semi-annual basis for these type facilities. The next semi-annual sampling event will be scheduled in May 2003, approximately six months after the baseline event, in keeping with the routine monitoring program. We may elect to add turbidity readings to the samples during the next sampling event due to slightly turbid samples observed at the new wells during the November 27, 2002 sampling event.

Please contact me at your earliest convenience if I can provide clarification or be of further service.

Very Truly Yours,


G. David Garrett, P.G., P.E.



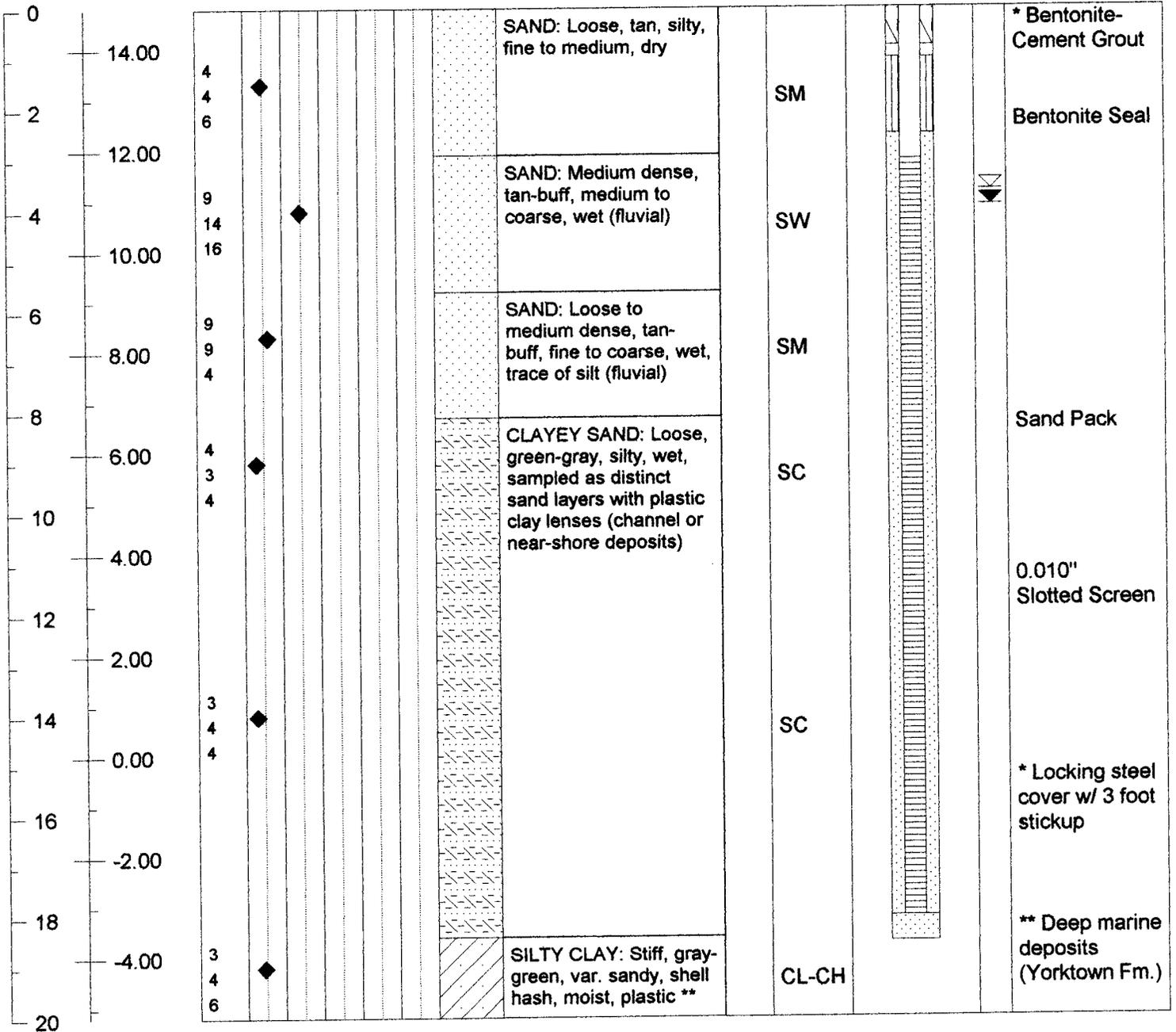
cc: John Tucker, P.E.

Attachments: 1 - Monitoring Well Installation Records
2 - Revised Water Quality Monitoring Plan

cc: SIM BARBER NCDENR SOLID WASTE SECTION

Client and Project **C&D Landfill, Inc. (Phase 1)** Ground Elevation **14.80**
 Equipment **Mobile B-53 ATV** Drilling Method **4-1/4" Hollow Auger** Water Level, TOB **3.6** \sphericalangle
 Date Started **11/19/02** Date Ended **11/19/02** Water Level, 24 Hr. **NA**
 Drilling Firm **Bore & Core, Inc.** Logged by **David Garrett** Stabilized Level **3.9** \sphericalangle
 Comments **Wooded area, cool sunny weather** Total Depth **20.0** Date of Observation **11/27/02**
All depths are given in feet and referenced b.g.s.

Depth and Elev.	SPT Value and Plot	Soil Description, OVA and USCS Symbol	Piezometer Constuction Data
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Client and Project **C&D Landfill, Inc. (Phase 1)**

Ground Elevation **18.30**

Equipment **Mobile B-53 ATV** Drilling Method **4-1/4" Hollow Auger**

Water Level, TOB **7.3** ∞

Date Started **11/18/02** Date Ended **11/18/02**

Water Level, 24 Hr. **7.3**

Drilling Firm **Bore & Core, Inc.** Logged by **David Garrett**

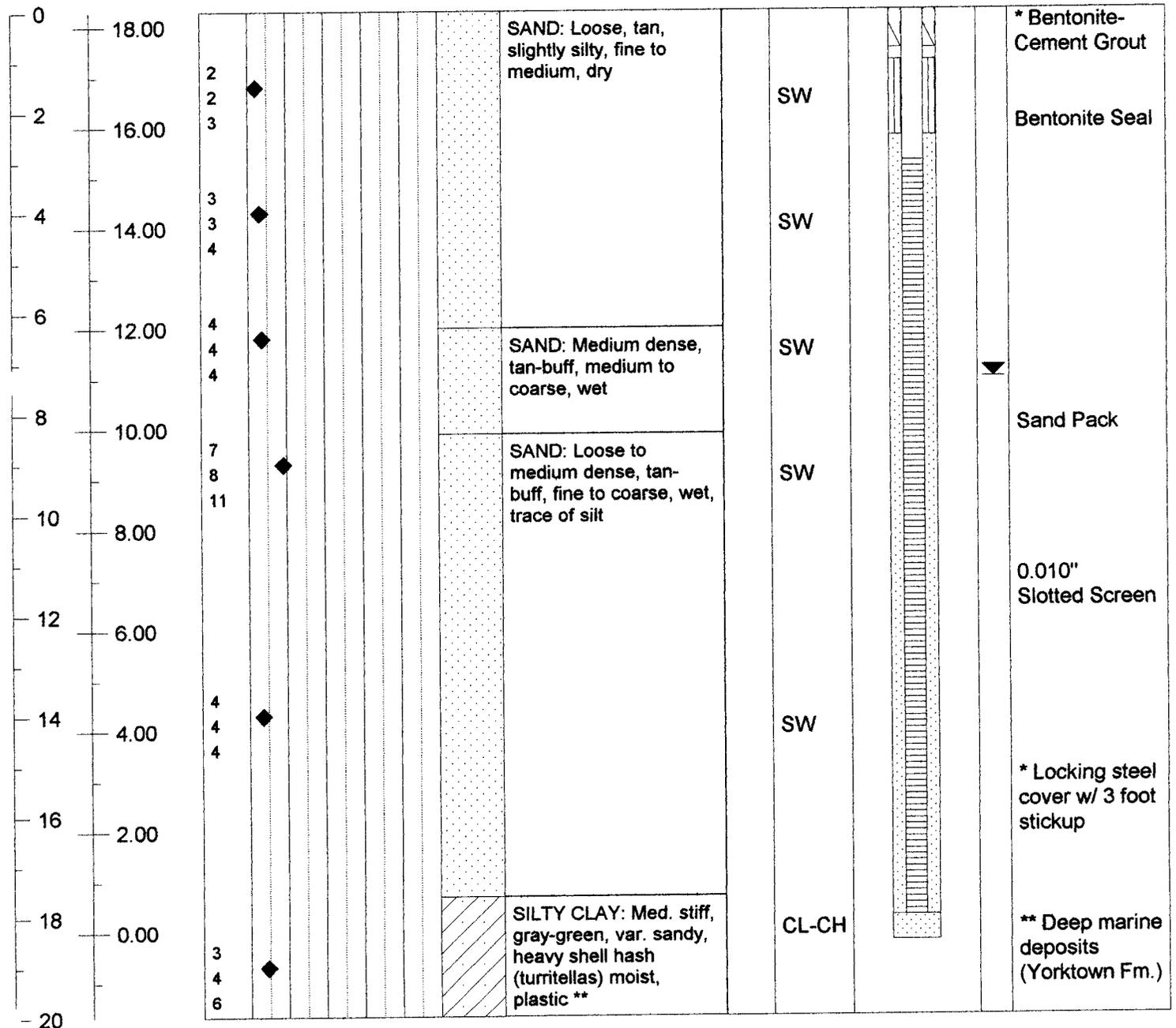
Stabilized Level **7.3** ▼

Comments **Wooded area, cool sunny weather** Total Depth **20.0**

Date of Observation **11/27/02**

All depths are given in feet and referenced b.g.s.

Depth and Elev.	SPT Value and Plot	Soil Description, OVA and USCS Symbol	Piezometer Constuction Data
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Client and Project **C&D Landfill, Inc. (Phase 1)**

Equipment **Mobile B-53 ATV**

Date Started **11/19/02**

Drilling Firm **Bore & Core, Inc.**

Comments **Wooded area, cool sunny weather**

Drilling Method **4-1/4" Hollow Auger**

Date Ended **11/19/02**

Logged by **David Garrett**

Total Depth **18.5**

Ground Elevation **19.91**

Water Level, TOB **9.5** \sphericalangle

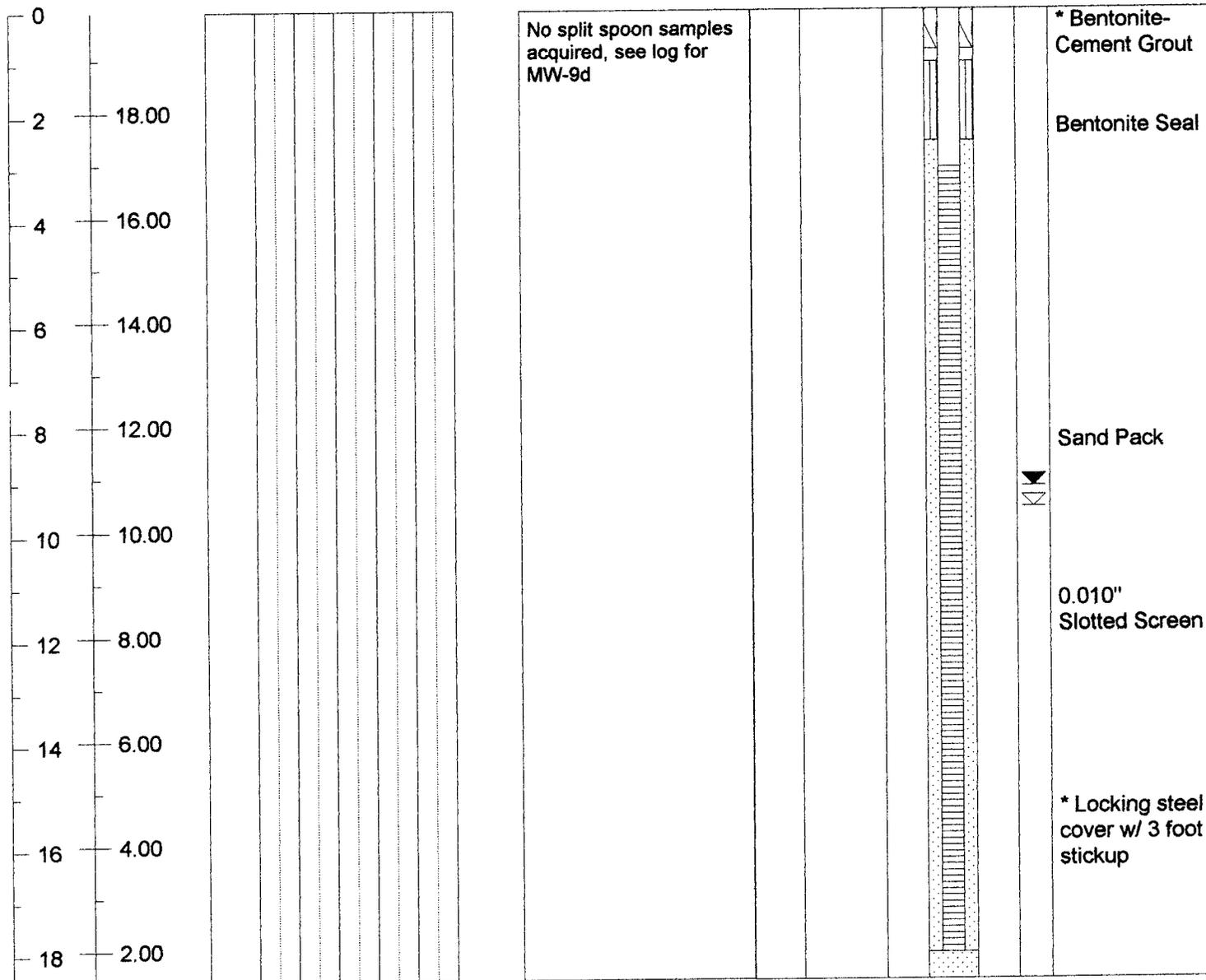
Water Level, 24 Hr. **9.3**

Stabilized Level **9.1** \sphericalangle

Date of Observation **11/27/02**

All depths are given in feet and referenced b.g.s.

Depth and Elev.	SPT Value and Plot	Soil Description, OVA and USCS Symbol	Piezometer Constuction Data
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Client and Project **C&D Landfill, Inc. (Phase 1)**

Ground Elevation **19.88**

Equipment **Mobile B-53 ATV**

Drilling Method **4-1/4" Hollow Auger**

Water Level, TOB **10.3** \sphericalangle

Date Started **11/14/02**

Date Ended **11/14/02**

Water Level, 24 Hr. **10.2**

Drilling Firm **Bore & Core, Inc.**

Logged by **David Garrett**

Stabilized Level **9.7** \sphericalangle

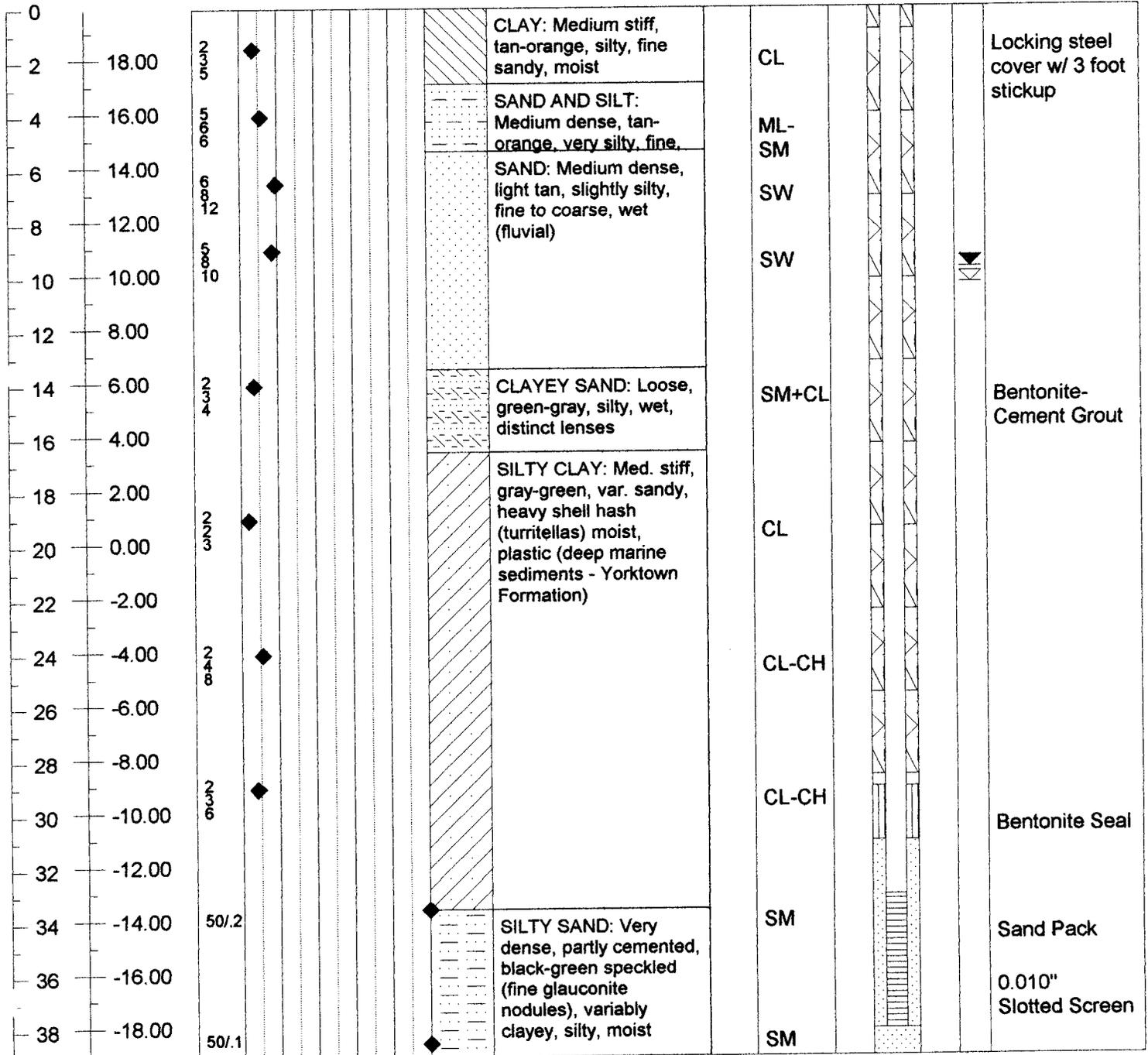
Comments **Wooded area, cool sunny weather**

Total Depth **39.0**

Date of Observation **11/27/02**

All depths are given in feet and referenced b.g.s.

Depth and Elev.	SPT Value and Plot	Soil Description, OVA and USCS Symbol	Piezometer Constuction Data
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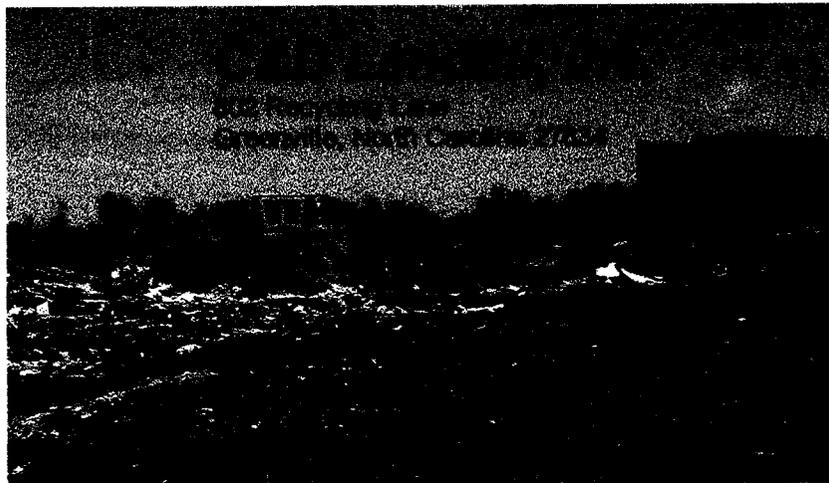


WATER QUALITY MONITORING PLAN

Sampling Locations and Protocol for Ground and Surface Water Monitoring

**C&D Landfill, Inc., CDLF (Phase 1)
Pitt County, North Carolina**

Prepared for



Updated November 2002

This document supercedes all previous versions.

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1.0 Introduction

1.1 Background

The C&D Landfill, Inc., facility ("Site") is located 15 miles east of Greenville, North Carolina, in rural Pitt County. This Water Quality Monitoring Plan (WQMP) has been prepared to meet the field sampling and laboratory analysis requirements for the Site. The WQMP details field and laboratory protocols that shall be followed to meet the data objectives of the ground water monitoring program.

1.2 Purpose & Scope

This WQMP has been designed to insure accurate and representative field and laboratory results are obtained for all-round and surface water quality monitoring points. The WQMP addresses the following subjects:

- Ground water sample collection
- Surface water sample collection
- Sample preservation and shipment
- Laboratory analytical procedures
- Sample Chain-of-custody control
- Quality assurance/quality control programs.

The methods and procedures described in the following sections are intended to facilitate the collection of true and representative samples and test data. Field procedures are presented in the following Sections 3.0 through 6.0 in their general order of implementation. Equipment requirements for each field task are presented within the applicable section. Laboratory procedures, quality assurance methods and record keeping requirements are presented in Sections 7.0 through 9.0.

Strict adherence to these procedures stipulated in this plan is required. Any variation from these procedures should be thoroughly documented in the assessment report.

1.3 New Well Location Criteria

Based on a review of the site topography and hydrogeologic conditions, a monitoring network for Phase 1A will consist of six (6) ground water monitoring locations within the uppermost aquifer. The network has been expanded with five (5) additional wells due to the activation of Phase 1B. The shallower wells will be sampled semi-annually. Three (3) deep wells, existing piezometers, will monitor the deeper regional aquifer. The deep wells will be sampled on a bi-annual basis. The well locations, shown on Figure 1, were chosen to provide early detection of a release from the landfill into the two uppermost aquifers. Wells MW-1s and MW-1s are located up gradient of the proposed cell and will be used as the background wells. Refer to Table 1 at the end of this text.

Three surface water sampling points will be monitored. SW-1 is located up gradient of the landfill along the southeast stream, at the east corner of the site. SW-2 is down gradient on that same stream, located at the south corner. SW-3 is located down gradient along the northwest stream, near the property line. Each sampling location will be clearly marked in the field with a permanent post.

2.0 Ground Water Sample Collection

This section presents details of the procedures and equipment required to perform sampling from monitoring wells for each ground water monitoring event. Monitoring wells and surface sampling locations are shown on the attached map and are described in the Tables following this text.

For this discussion, it is assumed that well evacuation and sampling will be accomplished by bailing. A suitable alternative will be the use of dedicated sampling equipment, including low-flow purging and sampling techniques.

2.1 Water Level Measurements

Static water level and total depth to the bottom shall be measured in each well prior to any purging or sampling activities. Static water level and well depth measurements are necessary to calculate the volume of stagnant water in the well prior to purging. Additionally these measurements provide a field check on well integrity, degree of siltation, and are used to prepare potentiometric maps, calculate aquifer flow velocities and monitor changes in site hydrogeologic conditions.

Upon opening each well, new latex or nitrile surgical gloves shall be donned. New gloves shall be worn when taking water level measurements at each well. Appropriate measures shall be taken during all measurement activities to prevent soils, decontamination supplies, precipitation, and other potential contaminants from entering the well or contacting clean equipment.

An electronic water level indicator shall be used to accurately measure depth to ground water in each well and/or piezometer. Ground water depths shall be measured to a vertical accuracy of 0.01 feet relative to established wellhead elevations. Each well shall have a permanent, easily identified reference point on the lip of the well riser from which all water level measurements shall be taken. The elevation of the reference point shall be established by a Registered Land Surveyor.

The electronic water level indicator shall be constructed of inert materials such as stainless steel and Teflon. Between well measurements the device shall be thoroughly decontaminated by washing, with non-phosphate soap and triple rinsing with de-ionized water to prevent cross contamination from one well to another. The following measurements shall be recorded in a dedicated field book prior to sample collection:

- Depth to static water level and well bottom (to the nearest 0.01 foot)
- Height of water column in the riser (based upon known depth of well)
- Condition of wellhead protective casing, base pad and riser
- Changes in condition of well and surroundings.

2.2 Monitor Well Evacuation

Water accumulated in each well may be stagnant and unrepresentative of surrounding aquifer conditions, and therefore must be removed to ensure that fresh formation water is sampled. Each well will be purged of standing water following the measurement of the static water level.

New latex or nitrile surgical gloves shall be donned for all well purging and sampling activities and whenever handling decontaminated field equipment. Appropriate measures shall be taken during all measurement, purging and sampling activities to prevent surface soils, decontamination supplies, precipitation, and other potential contaminants from entering the well or contacting the equipment.

The volume of standing water in the well riser and screen shall be calculated immediately before well evacuation during each monitoring event. A standing water volume shall be calculated for each well using measured static water level, well depth and well casing diameter according to the equation:

$$V = (TD - SWL) \times C$$

Where: V = One well volume
 TD = Total depth of the well (in feet)
 SWL = Static water level (in feet)
 C = Volume constant for given well diameter (gallons/foot)
 C = 0.163 gal/ft for two-inch wells and C = 0.653 gal/ft for four-inch wells.

After the volume of standing water within the casing, is established, a minimum of three and a maximum of five well casing, volumes of water shall be evacuated from each well. New, disposable bailers with either double or bottom check-valve shall be used to purge each well. Disposable purge bailers shall be constructed of fluorocarbon resin (Teflon) or inert plastic suitable for the well and ground conditions. Each bailer shall be factory-clean and remain sealed in a plastic sleeve until use. A new Teflon-coated stainless steel, inert mono-filament line or nylon cord shall be used for each well to retrieve the bailers. **Dedicated purging and sampling equipment may be used.**

Wells shall be purged at a rate that will not cause recharge water to be excessively agitated or cascade through the screen. Care will also be taken to minimize disturbance to the well sidewalls and bottom which could result in the suspension of silt and fine particulate matter. The volume of water purged from each well and the relative rate of recharge shall be documented in sampling field notes. Wells which are of very low recharge rates shall be purged once until dry. Damaged, dry or low yielding, and high turbidity wells shall be noted for reconsideration before the next sampling event. Purge water shall be managed to prevent possible soil and surface water contamination. Well site management options may include temporary containment and disposal or portable activated carbon filtration.

Durable, non-dedicated equipment to be lowered into the well or which may contact the water shall be thoroughly decontaminated before each use. Equipment shall be disassembled to the degree practical, washed with (non-phosphate) soapy potable tap water, and triple rinsed using de-ionized water. Detailed equipment decontamination procedures are detailed in Section 2.6.

2.3 Ground Water Sample Collection

After purging activities are complete, ground water samples will be collected for laboratory analysis. Sampling shall occur within 24 hours of the purging of each well and as soon after well recovery as possible. Wells which fail to recharge or produce an adequate sample volume within 24 hours of purging shall not be sampled. High turbidity wells (>1000 units/ml) shall be noted and scheduled for redevelopment following the sampling event.

Field measurements of temperature, pH, specific conductivity and turbidity shall be made immediately prior to sampling each monitoring point. The field test specimens shall be collected with the sampling bailer acid placed in a clean, non-conductive glass or plastic container for observation. The calibration of the pH, temperature, conductivity and turbidity meters shall be completed according to the manufacturers' specifications and consistent with *Test Methods for Evaluating Solid Waste - Physical/Chemical Methods* (SW-846). A pocket thermometer and litmus paper will be available in case of meter malfunction.

Each well shall be sampled using, a new, factory-cleaned, disposable Teflon bailer with bottom check-valve and sample discharge mechanism. A new segment of Teflon-coated stainless steel wire, inert mono-filament line or nylon cord shall be used to lower and retrieve each bailer. The bailer will be lowered into each well to the point of ground water contact, then allowed to fill as it sinks below the water table. Bottom contact will be avoided in order to avoid suspending sediment in the samples. The bailer will be retrieved and emptied in a manner which minimizes sample agitation.

Samples shall be transferred directly from the Teflon bailer into a sample container that has been specifically prepared for the preservation and storage of compatible parameters. A bottom emptying device provided with the bailer shall be used to transfer samples from bailer to sample container. The Generation of air bubbles and sample agitation will be minimized during bailer discharge.

Ground water samples shall be collected and contained in the order of volatilization sensitivity. Initially, only purgeable organics and total metals specimens shall be collected for laboratory analysis. Subsequently, other analytical methods may required. When collected, the following order of sampling, shall be observed:

- Initial measurements of pH, temperature, conductivity and turbidity
- Volatile and Purgeable Organics
- Base Neutral and Acid Extractable Organics
- Total Metals
- Dissolved Metals
- Final measurements of pH, temperature, conductivity and turbidity

All samples shall be collected and analyzed in an unfiltered state during initial sampling event. If excessively silty ground water conditions persist, analyses of dissolved metal analysis may be proposed to the DWM. Any optional dissolved metals sampling, which can be performed in addition, shall be completed on samples prepared by field filtration using a decontaminated peristaltic pump and a disposable 0.45 micron filter cartridge specifically manufactured for this purpose.

All reusable sampling equipment including water level probes, pH/conductivity meters, interface probes, and filtering, pumps which might contact aquifer water or samples shall be thoroughly decontaminated between wells by washing with non-phosphate soapy, de-ionized water and triple rinsing, with de-ionized water. Equipment decontamination procedures are detailed in Section 2.6.

2.4 Field Quality Assurance

Field and trip blanks shall be prepared, handled and analyzed as ground water samples to ensure cross-contamination has not occurred. One set of trip blanks, as described later in this document, shall be prepared before leaving the laboratory to ensure that the sample containers or handling processes have not affected the quality of the samples. One set of field (equipment) blanks shall be created in the field at the time of sampling to ensure that the field conditions, equipment, and handling during sampling collection have not affected the quality of the samples. A duplicate ground water sample may be collected from a single well as a check of laboratory accuracy. Blanks and duplicate containers, preservatives, handling, and transport procedures for surface water samples shall be identical to those noted for around water samples.

2.5 Sample Containers

Sample containers shall be provided by the laboratory for each sampling event. Containers must be either new and factory-certified analytically clean by the manufacturer, or cleaned by the laboratory prior to shipment for sampling. Laboratory cleaning methods shall be based on the bottle type and analyte of interest. Metal containers are thoroughly washed with non-phosphate detergent and tap water, and rinsed with 1:1 nitric acid, tap water, 1:1 hydrochloric acid, tap water, and de-ionized water, in that order. Organic sample containers are thoroughly washed with non-phosphate detergent in hot water and rinsed with tap water, distilled water, acetone, and pesticide-quality hexane, in that order. Other sample containers are thoroughly washed with non-phosphate detergent and tap water, rinsed with tap water, and rinsed with de-ionized water. The laboratory shall provide proper preservatives in the sample containers prior to shipment (see Section 7.0).

2.6 Equipment Decontamination

All non-dedicated equipment that shall come in contact with the well casing and water shall be decontaminated. The procedure for decontaminating non-dedicated equipment is as follows:

1. Clean item with tap water and phosphate-free laboratory detergent (Liquinox or equivalent), using a brush if necessary to remove particulate matter and surface films.
2. Rinse thoroughly with tap water
3. Rinse thoroughly with de-ionized or distilled water and allow to air dry
4. Rinse thoroughly with high grade isopropanol and allow to air dry
5. Wrap with aluminum foil to prevent contamination of equipment during storage or transport.

2.7 Detection of Immiscible Layers

The detection of non-aqueous phase liquids (fluids that are immiscible in water and vary in density from 1.0 g/ml) is highly unlikely. Should organic constituents be detected that suggest the presence of immiscible liquids, a plan for the detection of these liquids shall be submitted to DWM.

3.0 Surface Water Sample Collection

This section presents details of the procedures and equipment required to perform surface water field measurements and sampling. The surface water monitoring station locations are shown in Figure 1.

Surface water samples shall be obtained from areas of minimal turbulence and aeration. New latex or nitrile surgical gloves shall be donned prior to sample collection. The following procedure shall be implemented regarding sampling of surface waters:

1. Put on new latex or nitrile surgical gloves.
2. Hold the bottle in the bottom with one hand, and with the other, remove the cap.
3. Push the sample container slowly into the water and tilt up towards the current to fill. A water depth of six inches is generally satisfactory. Care shall be taken to avoid breaching the surface or losing, sample preservatives while filling the container.
4. If there is little current movement, the container should be moved slowly, in a lateral, side to side direction, with the mouth of the container pointing upstream.

Temperature, pH, specific conductivity and turbidity shall be taken at the start of sampling as a measure of field conditions and check on the stability of the water samples over time. Measurements of temperature, pH, specific conductivity and turbidity shall be recorded for all surface water samples. The calibration of the pH, temperature, conductivity, and turbidity meters shall be completed at the beginning, of each sampling event, according to the manufacturers' specifications and consistent with *Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846)*.

Surface water samples shall be collected and contained in the order of volatilization sensitivity of the parameters as follows:

1. Measurements of pH, temperature, conductivity and Turbidity
2. Volatile and Purgeable Organics
3. Base Neutral and Acid Extractable Organics
4. Total Metals
5. Dissolved Metals

All surface water samples shall be collected unfiltered in each sampling event. If future dissolved metal analysis is required, samples shall be prepared by field filtration using a decontaminated peristaltic pump, hand-operated filtering pump (or equivalent) and a disposable 0.45 micron filter cartridge specifically manufactured for this purpose. All field meters which might contact surface water samples shall be thoroughly decontaminated between stations by washing with non-phosphate soapy, de-ionized water and triple rinsing with de-ionized water.

Samples shall be collected directly from the station in the container that has been specifically prepared for the preservation and storage of compatible parameters. Samples shall be collected in a manner that assures minimum agitation. Sample containers shall be prepared and provided by the analytical laboratory, following the procedures presented in Section 2.5, for each surface water sampling event.

4.0 Field QA/QC Program

Field Quality Assurance/Quality Control (QA/QC) requires the routine collection and analysis of trip blanks to verify that the handling process has not affected the quality of the samples. Any contaminants found in the trip blanks could be attributed to:

- interaction between the sample and the container,
- contaminated source water, or
- a handling, procedure that alters the sample.

The laboratory shall prepare a trip blank by filling each type of sample bottle with distilled or de-ionized water. Trip blanks shall be placed in bottles of the specific type required for the analyzed parameters and taken from a bottle pack specifically assembled by the laboratory for each -round water sampling event. Trip blanks shall be taken prior to the sampling event and transported with the empty bottle packs. The blanks shall be analyzed for volatile and purgeable organics only.

The concentration levels of any contaminants found in the trip blank shall be reported but shall not be used to correct the ground water data. In the event that elevated parameter concentrations are found in a blank, the analysis will be flagged for future evaluation and possible re-sampling.

All instruments utilized in the field to measure ground water characteristics shall be calibrated prior to entering the field, and recalibrated in the field as required, to insure accurate measurement for each sample. The specific conductivity and pH meter shall be recalibrated utilizing two prepared solutions of known concentration in the range of anticipated values (between 4 and 10).

A permanent thermometer, calibrated against a National Bureau of Standards Certified thermometer, will be used for temperature meter calibration. The turbidity meter shall be calibrated using Lucite standard blocks provided by the manufacturer.

5.0 Sample Preservation and Shipment

Methods of sample preservation, shipment, and chain-of-custody procedures to be observed between sampling and laboratory analysis are presented in the following sections.

5.1 Sample Preservation

Proper storage and transport conditions must be maintained in order to preserve the integrity of specimens between collection and analysis. Ice and chemical cold packs shall be used to cool and

preserves samples, as directed by the analytical laboratory. Samples will be maintained at a temperature of 4° C. Dry ice is not to be used.

Pre-measured chemical preservatives shall be provided in the sample containers provided by the analytical laboratory. Hydrochloric acid shall be used as a chemical stabilizer and preservative for volatile and purgeable organic specimens. Nitric acid shall be used as the preservative for samples for metals analysis.

Upon collection, samples shall be placed on ice in high impact polystyrene coolers and cooled to a temperature of 4° C. Samples shall be packed and/or wrapped in plastic bubble wrap to inhibit breakage or accidental spills. Chain-of-Custody control documents shall be placed in a waterproof pouch and sealed inside the cooler with the shipped samples. Tape and/or custody seals shall be placed on the outside of the shipping coolers to prevent and aid in the detection tampering.

Samples shall be delivered to the analytical laboratory within a 24-hour period in person or using an overnight delivery service to insure holding times are not exceeded. Shipment and receipt of samples shall be coordinated with the laboratory.

Chain-of-Custody control shall be maintained from sampling through analysis to prevent tampering with analytical specimens. Chain-of-Custody control procedures for all samples shall consist of the following:

1. Chain-of-Custody shall originate at the laboratory with the shipment of prepared sample bottles and a sealed trip blank. Identical container kits shall be shipped by express carrier to the sampler or site or picked up at the laboratory in sealed coolers.
2. Upon receipt of the sample kit, the sampler shall inventory the container kit and check its consistency with number and types of containers indicated in the Chain-of-Custody forms and required for the sampling event.
3. Labels for individual sample containers shall be completed in the field, indicating the site, time of sampling, date of sampling, sample location/well number, and preservation methods used.
4. Collected specimens shall be placed in the iced coolers and shall remain in the continuous possession of the field technician until shipment or transferral as provided by the Chain-of-Custody form has occurred. If continuous possession can not be maintained by the field technician, the coolers shall be temporarily sealed and placed in a secured area.
5. Upon delivery to the laboratory, samples are given laboratory sample numbers and recorded into a logbook indicating client, well number, and date and time of delivery. The laboratory director or his designee shall sign the Chain-of-Custody control forms and formally receive the samples. The field technician, project manager and the laboratory director shall work together to insure that proper refrigeration of the samples is maintained.
6. Copies of the complete Chain-of-Custody forms shall be placed in the laboratory's analytical project file and attached results of laboratory analysis report upon completion.

Chain-of-Custody forms shall be used to transfer direct deliveries from the sampler to the laboratory. A coded express delivery shipping bill shall constitute the Chain-of-Custody between the sampler and laboratory for overnight courier deliveries.

6.0 Field Logbook

The field technician shall keep an up-to-date logbook documenting important information pertaining to the technician's field activities. The field logbook shall document the following:

- Site Name and Location
- Date and Time of Sampling
- Climatic Conditions During Sampling Event
- Sampling Point/Well Identification Number
- Well Static Water Level
- Height of Water Column in Well
- Purged Water Volume and Well Yield (High or Low)
- Presence of Immiscible Layers and Detection Method
- Observations on Purging and Sampling Event
- Time of Sample Collection
- Temperature, pH, Turbidity, and Conductivity Readings
- Signature of Field Technician.

7.0 Laboratory Analysis

The ground and surface water parameters to be analyzed shall be those specified by DWM for detection monitoring purposes. These shall include field indicators of water quality (pH, conductivity, temperature and turbidity) and selected purgeable organic and metals constituents listed in RCRA Subtitle-D, Appendix I of 40 CFR 258. All analytical methods are taken from *Test Methods For Evaluating Solid Waste - Physical/Chemical Methods* (SW-846) or *Methods For the Chemical Analysis of Water and Wastes* and will be consistent with DWM's policies regarding analytical methods and practical quantitation limits (PQLs). Table 2 presents a summary of proposed analytical methods. Analysis shall be performed by a laboratory certified by the North Carolina DENR for the analyzed parameters.

Formal environmental laboratory Quality Assurance/Quality Control (QA/QC) procedures are to be utilized at all times. The owner/operator of the landfill is responsible for selecting a laboratory contractor and insuring that the laboratory is utilizing proper QA/QC procedures. The laboratory must have a QA/QC program based upon specific routine procedures outlined in a written laboratory Quality Assurance/Quality Control Manual. The QA/QC procedures listed in the manual shall provide the lab with the necessary assurances and documentation that accuracy and precision goals are achieved in all analytical determinations. Internal quality control checks shall be undertaken regularly by the lab to assess the precision and accuracy of analytical procedures.

The internal quality control checks include the use of calibration standards, standard references, duplicate samples and spiked or fortified samples. Calibration standards shall be verified against a standard reference obtained from an outside source. Calibration curves shall be developed using at

least one blank and three standards. Samples shall be diluted if necessary to insure that analytical measurements fall on the linear portion of the calibration curve. Duplicate samples shall be processed at an average frequency of 10 percent to assess the precision of testing methods, and standard references shall be processed monthly to assess accuracy of analytical procedures. Spiked or fortified samples shall be carried through all stages of sample preparation and measurement to validate the accuracy of the analysis.

During the course of the analyses, quality control data and sample data shall be reviewed by the laboratory manager to identify questionable data and determine if the necessary QA/QC requirements are being followed. If a portion of the lab work is subcontracted, it is the responsibility of the contracted laboratory to verify that all subcontracted work is completed by certified laboratories, using identical QA/QC procedures.

8.0 Data Evaluation and Statistical Analysis

Copies of all laboratory results and water quality reports for this facility shall be kept at the facility office. Reports summarizing all ground water quality results and data evaluation shall be submitted to the DWM for each sampling event. Upon receipt of each monitoring event's data, the water quality database of analyses shall be updated.

Methods to evaluate the data are taken from *North Carolina Solid Waste Rules* and the EPA's *RCRA Ground Water Monitoring Technical Guidance Document*. The goal of the statistical analysis is to determine whether statistically significant evidence of contamination exists and to identify the constituents and points of concern. The *North Carolina Solid Waste Rules* provide several methods for statistical analysis of ground water data. These methods are:

1. Parametric analysis of variance (ANOVA)
2. Rank-based (non-parametric) ANOVA with multiple comparisons
3. Tolerance prediction interval
4. Control chart
5. Test of Proportions
6. Alternative statistical test method that meets the standards of 40 CFR 258.53 (h).

The choice of appropriate methods for data analysis and presentation, including statistical tests, depends on the type of monitoring, the nature of the data, and the proportion of values in the data set that are below detection limits. The statistical analysis would be conducted separately for each detected organic constituent based on the *EPA's Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities, Interim Final Guidance Document (1989)* and *Addendum to the Interim Final Guidance Document (1992)*. All statistical analyses shall be performed in general accordance methods outlined in the North Carolina State Regulations 15A NCAC 13B.1632.

9.0 Record Keeping and Reporting

9.1 Sampling Reports

Copies of all laboratory analytical data shall be forwarded the DWM within 45 calendar days of the sample collection date. The analytical data submitted shall specify the date of sample collection, the sampling, point identification and include a map of the sampling, locations. Should significant concentrations of contaminants be detected in ground and surface water during monitoring (as defined in North Carolina Solid Waste Rules, Ground Water Quality Standards, or Surface Water Quality Standards), the owner/operator of the landfill shall notify the DWM and shall place a notice in the landfill records as to which constituents were detected.

9.2 Well Abandonment/Rehabilitation

Should wells become irreversibly damaged or require rehabilitation, the DWM shall be notified. If monitoring wells and/or piezometers are damaged irreversibly they shall be abandoned under the direction of the DWM. The abandonment procedure in unconsolidated materials shall consist of over-drilling and/or pulling the well casing and plugging the well with an impermeable, chemically-inert sealant such as neat cement grout and/or bentonite clay. For bedrock well completions the abandonment shall consist of plugging the interior well riser and screen with an impermeable neat cement grout and/or bentonite clay sealant.

9.3 Additional Well Installations

The assessment data shall be analyzed to verify the correct placement of assessment wells and determine locations for future assessment monitoring wells. Any additional well installations shall be carried out in accordance with DWM directives. If the potentiometric maps reveal that the depths, location, or number of wells is insufficient to monitor potential releases of solid waste constituents from the solid waste management area, new well locations and depths shall be submitted to the DWM for approval.

All monitoring wells shall be installed under the supervision of a qualified geologist or engineer who is registered in North Carolina and who shall certify to the DWM that the installation complies with the North Carolina Regulations. Upon installation of future wells the documentation for the construction of each well shall be submitted by the registered geologist or engineer within 30 days after well construction.

9.4 Implementation Schedule

The Ground Water Quality Monitoring Program shall be implemented upon approval. Analyses shall be performed on a semi-annual basis.

9.5 Modifications

At some future time it may be appropriate to modify this plan, e.g. add or delete sampling locations or analytical parameters. Such changes require approval from DWM.

10. Certification

The water quality monitoring plan for this facility has been prepared by a qualified geologist who is licensed to practice in the State of North Carolina. The plan has been prepared based on first-hand knowledge of site conditions and familiarity with North Carolina solid waste rules and industry standard protocol. In accordance with North Carolina Solid Waste Regulations, this Water Quality Monitoring Plan should provide early detection of any release of hazardous constituents to the uppermost aquifer, so as to be protective of public health and the environment. No other warranties, expressed or implied, are made.

Signed _____

Printed G. DAVID GARRETT

Date December 2, 2002



Not valid unless this document bears the seal of the above-named licensed professional.

**Table 1
Monitoring Well and Surface Water Sampling Location Data**

C&D Landfill, Inc.
Pitt County, North Carolina

Monitoring Location	Top of Casing (TOC) Elevation ⁷	Ground Surface Elevation ⁷	Depth of Well (bgs)	Screened Interval (bgs)	Estimated Top of Yorktown ¹	Water Level ¹ (bgs)
MW-1d (B-1) ^{2,4}	21.14	17.4	50	40-50	7.5 (B-1)	6.28
MW-1s ²	20.91	17.59	13	3 - 13	NA	5.01
MW-2d (B-2d) ⁴	21.80	17.97	49	39 - 49	12.5 (B-2d)	8.86
MW-2s	21.44	18.45	13	3 - 13	12.5 (B-2)	7.66
MW-3d (B-3) ⁶	22.83	19.37	50	40 - 50	14.0 (B-3)	NA
MW-4	18.42	14.83	13	3 - 13	13.5 (B-4)	3.17
MW-5 ³	17.90	14.80	18	3 - 18	8.1	3.88
MW-6	20.03	16.87	13	3 - 13	12.5 (B-12)	7.14
MW-7	19.40	16.03	13	3 - 13	12.5 (B-12)	5.70
MW-8 ³	21.21	18.30	18	3 - 18	17.6	7.27
MW-9d ⁴	22.88	19.88	38	33 - 38	16.5	9.67
MW-9s	22.95	19.91	18	3 - 18	NA	9.07

- Notes: 1. Water level observations as of November 27, 2002 (except MW-1d and MW-2d)
 2. Up Gradient Background Wells, separate aquifers
 3. New well installed November 2002, activated for Phase 1B
 4. Sample bi-annually; all others to be sampled semi-annually
 5. All depths are given in feet and referenced below ground surface (bgs)
 6. Inactive well to be sampled if needed for assessment purposes
 7. Survey data provided by Burgess Land Surveying, Greenville, NC

Monitoring Location	Description of Monitoring Location
SW-1	Background on "south" stream at property line (east corner)
SW-2	Down gradient on "south" stream at property line (south corner)
SW-3 ³	Down gradient on "north" stream near property line (west corner)

Table 2**Ground And Surface Water Analysis Methodology****C&D Landfill, Inc.
Pitt County, North Carolina**

Inorganic Constituent	Test Method	Equipment	PQL (ug/1)
Antimony	Low Level	GF	30
Arsenic	Low Level	GF	10
Barium	Regular Level	ICP	500
Beryllium	Low Level	GF	2
Cadmium	Low Level	GF	1
Chromium	Low Level	GF	10
Cobalt	Low Level	GF	1.0
Copper	Regular Level	ICP	200
Lead	Low Level	GF	10
Mercury	Low Level	CVE	0.5
Nickel	Regular Level	ICP	50
Selenium	Low Level	GF	20
Silver	Regular Level	ICP	10
Thallium	Low Level	GF	10
Vanadium	Low Level	GF	40
Zinc	Regular Level	ICP	50

Organic Constituent	Test Method	Equipment	POL (ug/1)
Acetone	EPA 8240/8260	GC/MS	100
Acrylonitrile	EPA 8240/8260	GC/MS	200
Benzene	EPA 8240/8260	GC/MS	5
Bromochloromethane	EPA 8240/8260	GC/MS	5
Bromodichloromethane	EPA 8240/8260	GC/MS	5
Bromoform	EPA 8240/8260	GC/MS	5
Carbon Disulfide	EPA 8240/8260	GC/MS	100
Carbon Tetrachloride	EPA 8240/8260	GC/MS	10
Chlorobenzene	EPA 8240/8260	GC/MS	5
Chloroethane	EPA 8240/8260	GC/MS	10
Chloroform	EPA 8240/8260	GC/MS	5
Dibromochloromethane	EPA 8240/8260	GC/MS	5
1,2-Dibromo-3 chloropropane	EPA 8240/8260	GC/MS	25
1,2-Dibromomethane	EPA 8240/8260	GC/MS	5
1,2-Dichlorobenzene	EPA 8240/8260	GC/MS	5
1,4-Dichlorobenzene	EPA 8240/8260	GC/MS	5
Trans-1,4-dichloro-2-butene	EPA 8240/8260	GC/MS	100
1,1-Dichloroethane	EPA 8240/8260	GC/MS	5
1,2-Dichloroethane	EPA 8240/8260	GC/MS	5

Organic Constituent	Test Method	Equipment	PQL (ug/l)
1,1-Dichloroethylene	EPA 8240/8260	GC/MS	5
Cis-1,2-dichloroethylene	EPA 8240/8260	GC/MS	5
Trans-1,2-dichloroethylene	EPA 8240/8260	GC/MS	5
1,2 Dichloropropane	EPA 8240/8260	GC/MS	5
Cis-1,3-dichloropropene	EPA 8240/8260	GC/MS	10
Trans-1,3-dichloropropene	EPA 8240/8260	GC/MS	10
Ethylbenzene	EPA 8240/8260	GC/MS	5
2-Hexanone	EPA 8240/8260	GC/MS	50
Methyl bromide	EPA 8240/8260	GC/MS	10
Methyl chloride	EPA 8240/8260	GC/MS	10
Methylene bromide	EPA 8240/8260	GC/MS	10
Methylene chloride	EPA 8240/8260	GC/MS	10
Methyl ethyl ketone	EPA 8240/8260	GC/MS	100
Methyl iodide	EPA 8240/8260	GC/MS	10
4-Methyl-2-pentanone	EPA 8240/8260	GC/MS	100
Styrene	EPA 8240/8260	GC/MS	10
1,1,1,2-Tetrachloroethane	EPA 8240/8260	GC/MS	5
1,1,2,2-Tetrachloroethane	EPA 8240/8260	GC/MS	5
Tetrachloroethylene	EPA 8240/8260	GC/MS	5
Toluene	EPA 8240/8260	GC/MS	5
1,1,1-Trichloroethane	EPA 8240/8260	GC/MS	5
1,1,2-Trichloroethane	EPA 8240/8260	GC/MS	5
Trichloroethylene	EPA 8240/8260	GC/MS	5
Trichloroflouromethane	EPA 8240/8260	GC/MS	5
1,2,3-Trichloropropane	EPA 8240/8260	GC/MS	15
Vinyl acetate	EPA 8240/8260	GC/MS	50
Vinyl chloride	EPA 8240/8260	GC/MS	10
Xylenes	EPA 8240/8260	GC/MS	5

The foregoing constitutes the NC Appendix I list of monitoring parameters for Solid Waste Landfills.

ADD MONITORING
LOCATIONS 10/24/02
ALL NEW BORINGS

NEW
MW-8

UPGRADIENT
RECHARGE
AREA

MW1d
1s

ACTIVATE
SN-3
LOOK FOR
POST

ABANDONED
THESE
11/19/03

Abandon
NO

MW-9s/d
TWO WELLS
NEW

ABANDONED
MAY 2001

NEW
MW-5

SED
BASIN

MW4

SW1

ON SITE C

C&D LANDFILL, INC.
US 264 EAST
PITT COUNTY, NC
PHASE I SAMPLING
LOCATIONS

MW2d
2s

MW7

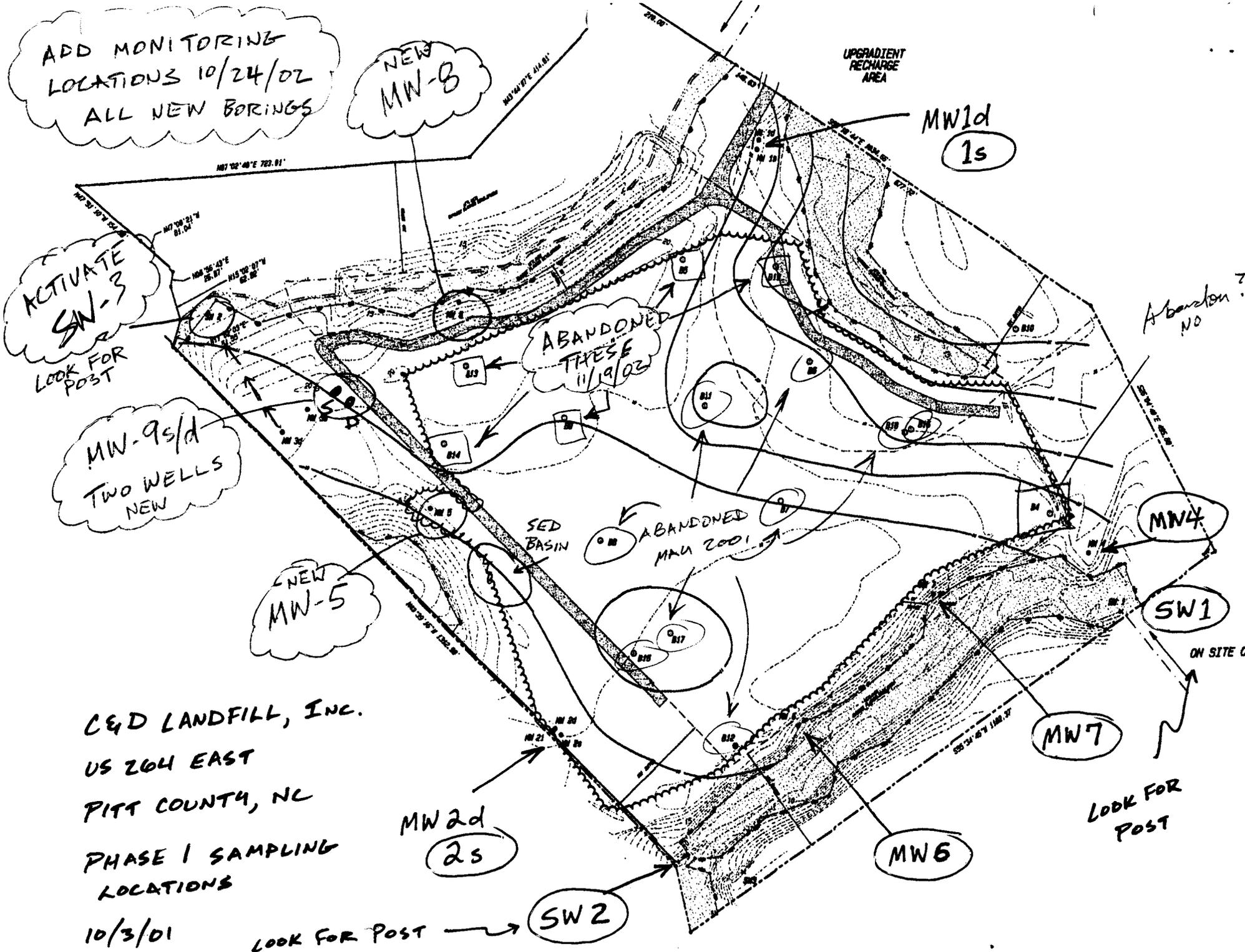
LOOK FOR
POST

MW6

10/3/01

LOOK FOR POST

SW2



- (3) If the site is deemed unsuitable by the Division, remove and place solid waste in an approved disposal site or facility;
- (4) Implement erosion control measures by grading and seeding; and
- (5) Prevent unauthorized entry to the site by means of gates, chains, berms, fences, and other security measures approved by the Division and post signs indicating closure for a period designated by the Division not to exceed one year.

History Note: Statutory Authority G.S. 130A-294; Eff. April 1, 1982; Amended Eff. Jan. 4, 1993

EJE / C AND D LF, INC.

.0503 SITING AND DESIGN REQUIREMENTS FOR DISPOSAL SITES

Disposal sites shall comply with the following requirements in order for a permit to be issued:

(1) A site shall meet the following siting requirements:

(a) A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources. (SB 1341 -> NO CELL IN 100YR. FL. PL. ALLOWED).

(b) A site shall be located in consideration of the following:

(i) a site shall not cause or contribute to the taking of any endangered or threatened species of plants, fish or wildlife;

(ii) a site shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 C.F.R. Part 17 which is hereby incorporated by reference including any subsequent amendments and editions. This information is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Solid Waste Management, 401 Oberlin Road, Raleigh, North Carolina 27605 where copies can be obtained at no cost;

(iii) a site shall not damage or destroy an archaeological or historical site; and

(iv) a site shall not cause an adverse impact on a state park, recreation or scenic area, or any other lands included in the state nature and historic preserve.

(c) A new site disposing of putrescible wastes shall not be located within 10,000 feet of an airport runway used by turbojet aircraft or within 5,000 feet of an airport runway used by piston-type aircraft; and

(d) A site shall have available adequate suitable soils for cover either on-site or from off-site.

(2) A site shall meet the following design requirements:

(a) The concentration of explosive gases generated by the site shall not exceed:

(i) twenty-five percent of the limit for the gases in site structures (excluding gas control or recovery system components); and

(ii) the lower explosive limit for the gases at the property boundary;

(b) A site shall not allow uncontrolled public access so as to expose the public to potential health and safety hazards at the disposal site;

(c) A site shall meet the following surface water requirements:

(i) A site shall not cause a discharge of pollutants into waters of the state that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), under Section 402 of the Clean Water Act, as amended, or that is in violation of standards promulgated under G.S. 143-214.1 and G.S. 143-215; (GRINDLE CREEK, C-NSW)

(ii) A site shall not cause a discharge of dredged material or fill material into waters

SITING APPLICATION

LTR DATED 12/29/00

CHECK MAPS SF

01/29/01 LTR.

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CONSTRUCTION APPLICATION

PITTS COUNTY
 E & S APPROV LTR.
 SAC. DIST. AREA.
 NCG 10000

of the state that is in violation of the requirements under Section 404 of the Clean Water Act, as amended, or that is in violation of any state requirements regulating the discharge of dredged or fill material into waters of the state, including wetlands; and (WETLANDS IDENTIFIED BY C.O.E. PLATIN)

APPENDIX I, S.S. APPL

CONSTRUCTION & APPLICATION

- (iii) A site shall not cause non-point source pollution of waters of the state that violates assigned water quality standards.
- (d) A site shall meet the following ground water requirements:
 - (i) A site, except for land clearing and inert debris landfills subject to Rule .0564(8)(e) of this Section, shall be designed so that the bottom elevation of solid waste will be a minimum of four feet above the seasonal high water table;
 - N/A. (ii) Operators of new industrial solid waste landfills, lateral expansions of existing industrial solid waste landfills, and industrial solid waste landfills receiving solid waste on or after January 1, 1998 shall submit to the Division a design which satisfies one of the following criteria:
 - (A) a design that will ensure that the ground water standards established under 15A NCAC 2L will not be exceeded in the uppermost aquifer at the compliance boundary established by the Division in accordance with 15A NCAC 2L. The design shall be based upon modeling methods acceptable to the Division, which shall include, at a minimum, the following factors:
 - (I) the hydrogeologic characteristics of the facility and surrounding lands;
 - (II) the climatic factors of the area; and
 - (III) the volume and physical and chemical characteristics of the leachate; or
 - N/A. (B) a design with a leachate collection system, a closure cap system, and a composite liner system consisting of two components; the upper component shall consist of a minimum 30-ml flexible membrane (FML), and the lower components shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-ml thick. The FML component shall be installed in direct and uniform contact with the compacted soil component.
 - N/A. (iii) The Division reserves the right to require an applicant to submit a liner design if the groundwater protection demonstration in sub-item (ii) of this paragraph is not satisfactory.
 - N/A. (iv) Industrial solid waste landfills shall comply with ground water standards established under 15A NCAC 2L at the compliance boundary.
- (e) A site shall not engage in open burning of solid waste;
- (f) A site, except a land clearing and inert debris landfill, shall meet the following buffer requirements:
 - (i) A 50-foot minimum buffer between all property lines and disposal areas; (200' FOR C-1)
 - (ii) A 500-foot minimum buffer between private dwellings and wells and disposal areas; and
 - (iii) A 50-foot minimum buffer between streams and rivers and disposal areas; and
- (g) Requirements of the Sedimentation Pollution Control Law (15A NCAC 4) shall be met. (LAND QUALITY - WASH. REG. OFFICE)

CHERYL MARKS

N/A. CHERYL MARKS

N/A. C.M.

PITT COUNTY - DWANE L. JONES.

History Note: Statutory Authority G.S. 130A-294; Amended Eff. October 1, 1995;

.0504 APPLICATION REQUIREMENTS FOR SANITARY LANDFILLS

A permit for a sanitary landfill shall be based upon a particular stream of identified waste, as set forth in Rule .0504 (g)(i) and (ii) of this Section. Any substantial change in the population or area to be served, or in the type, quantity or source of waste shall require a new permit and operation plan, including waste determination procedures where appropriate. Five sets of plans shall be required with each application.

(1) The following information shall be required for reviewing a site application for a proposed sanitary landfill:

- (a) An aerial photograph on a scale of at least 1 inch equals 400 feet and a blueprint of the photograph accurately showing the area within one-fourth mile of the proposed site's boundaries with the following specifically identified: **DEED TRANSFER**
 - (i) Entire property owned or leased by the person proposing the disposal site; **EJE CANOD, INC. ED WHITEHURST E.R. LEWIS**
 - (ii) Land use and zoning; **(AMENDED LTR) DATED 01/19/01**
 - (iii) Location of all homes, industrial buildings, public or private utilities, and roads; **(SEE DRUG ~~STAND~~ S1 AND S2)**
 - (iv) Location of wells, watercourses, dry runs, and other applicable details regarding the general topography; and **(S1)**
 - (v) Flood plains. **(NEED FEMA MAP W/SITE LOCATED)**

(b) A map on a scale of at least 1 inch equals 1000 feet showing the area within two miles of the proposed site's boundaries with the following specifically identified: **(S1)**

- (i) Significant ground-water users;
- (ii) Potential or existing sources of ground-water and surface water pollution;
- (iii) Water intakes; **(NONE NEAREST 3 MILES) NO INTAKE WITHIN 2 MILES 08.5**
- (iv) Airport and runways; and **(NONE - NEAREST 3 MILES)**
- (v) Subdivisions.

(c) A geological and hydrological study of the site which provides:

- (i) Soil borings for which the numbers and depths have been confirmed by the Division and lab testing of selected soil samples that provide:
 - (A) standard penetration - resistance;
 - (B) particle size analysis;
 - (C) soil classification - USCS;
 - (D) geologic considerations (slopes, solution features, etc.);
 - (E) undisturbed representative geologic samples of the unconfined or confined or semiconfined hydrological units within a depth of 50 feet that provide the following information for each major lithologic units:
 - (I) saturated hydraulic conductivity (or by in-situ);
 - (II) volume percent water; and
 - (III) porosity;
 - (F) remolded sample of cover soils that provide:
 - (I) saturated hydraulic conductivity,
 - (II) total porosity,
 - (III) atterberg limits;
 - (G) stratigraphic cross-sections identifying hydrogeological units including lithology;
 - (H) tabulation of water table elevations at time of boring, 24 hours, and seven days (The number of cased borings to provide this

SITING APPLICATION (C. MARKS)

information shall be confirmed by the Division.); and

C.M.

- (I) boring logs;
- (ii) A boundary plat locating soil borings with accurate horizontal and vertical control which are tied to a permanent onsite bench mark;
- (iii) A potentiometric map of the surficial aquifer based on stabilized water table elevations; and
- (iv) A report summarizing the geological and hydrological evaluation.

(d) A conceptual design plan presenting special engineering features or considerations which must be included or maintained in site construction, operation, maintenance and closure. (F-2 + F-3 → WILL PROBABLY NEED TO BEUCH @ ELEV. 35 TO 45 AND 85 TO 95? FOR E+S PURPOSES)

(e) Local government approvals:

(i) If the site is located within an incorporated city or town, or within the extra-territorial jurisdiction of an incorporated city or town, the approval of the governing board of the city or town shall be required. Otherwise, the approval of the Board of Commissioners of the county in which the site is located shall be required. Approval may be in the form of either a resolution or a vote on a motion. A copy of the resolution, or the minutes of the meeting where the vote was taken, shall be forwarded to the Division.

(ii) A letter from the unit of government having zoning jurisdiction over the site which states that the proposal meets all of the requirements of the local zoning ordinance, or that the site is not zoned.

(f) A discussion of compliance with siting standards in Rule .0503(1) of this Subchapter.

(g) A report indicating the following:

- (i) population and area to be served;
- (ii) type, quantity and source of waste; (200 TONS/DAY PER 365 DAY/YEAR)
- (iii) the equipment that will be used for operating the site;
- (iv) a proposed groundwater monitoring plan including well location and schematics showing proposed screened interval, depth and construction; and

(v) a more detailed geologic report may be required depending on specifics of the site. This report may be based on physical evidence, initially, or due to information obtained from the site plan application.

(h) Any other information pertinent to the suitability of the proposed site.

(2) The following information shall be required for reviewing a construction plan application for a proposed sanitary landfill:

(a) A map showing existing features to include:

- (i) existing topography of the site on a scale of at least 1 inch equals 200 feet with five foot contours;
- (ii) bench marks;
- (iii) springs;
- (iv) streams;
- (v) potential ground-water monitoring sites;
- (vi) pertinent geological features; and
- (vii) soil boring locations.

(b) A grading plan that provides:

- (i) proposed excavated contours; MSL 16 TO 18 ACROSS SITE
- (ii) soil boring locations;
- (iii) locations and elevations of dikes or trenches; NONE.

SITING APPLICATION.

CONSTRUCTION APPL.

- (b) designated buffer zones;
- (c) diversion and controlled removal of surface water from the work areas; and } CONSISTENT W/ E+S APPROVAL BY PITT CNTY
- (d) proposed utilities and structures.
- (c) A construction plan that provides:
 - (i) engineering design for liners, leachate collections systems; (N/A: SITE SUIT. AS IS)
 - (ii) proposed final contours showing removal of surface water runoff; and } E+S APPROVAL BY PITT CNTY
 - (iii) locations of slope drains or other drop structures.
- (d) An erosion control plan that identifies the following:
 - (i) locations of temporary erosion control measures (sediment basins, stone filters, terraces, silt fences, etc.);
 - (ii) locations of permanent erosion control measures (rip-rap, energy dissipators, ditch stabilization, pipe drain, etc.); and
 - (iii) seeding specifications and schedules.
- (e) Detailed diagrams showing typical sections of:
 - (i) dikes, } NOVE
 - (ii) trenches, }
 - (iii) diversions,
 - (iv) sediment basins, and
 - (v) other pertinent details.
- (f) A minimum of two cross sections per operational area showing:
 - (i) original elevations,
 - (ii) proposed excavated depths,
 - (iii) proposed final elevations,
 - (iv) ground-water elevation, and
 - (v) soil borings.
- (g) Site development showing phases or progression of operation.
- (h) A written report that contains the following:
 - (i) A copy of the deed or other legal description of the landfill site that would be sufficient as a description in an instrument of conveyance and property owner's name; } APPENDIX I
 - (ii) Name of individual responsible for operation and maintenance of the site;
 - (iii) Projected use of land after completion of the sanitary landfill;
 - (iv) Anticipated lifetime of the project; (APPROX. 10 YRS.)
 - (v) Description of systematic usage of area, operation, orderly development and completion of the sanitary landfill;
 - (vi) Earthwork calculations;
 - (vii) Seeding specifications and schedules;
 - (viii) Calculations for temporary and permanent erosion control measures;
 - (ix) Any narrative necessary to describe compliance with the Sedimentation Pollution Control Act of 1973 (15A NCAC 4);
 - (x) A discussion of compliance with design requirements in Rule .0503(2) of this Section; and
 - (xi) Any other information pertinent to the proposed construction plan.

CHECK SITE ?
 SWIT. DRN'G. FOR
 METES & BOUNDS,
 CHECK S.S.
 FRANCHISE

History Note: Statutory Authority G.S. 130A-294; Eff. April 1, 1982

.0505 OPERATIONAL REQUIREMENTS FOR SANITARY LANDFILLS

Any person who maintains or operates a sanitary landfill site shall maintain and operate the site in conformance with the following practices, unless otherwise specified in the permit:

- (1) Plan and Permit Requirements
 - (a) Construction plans shall be approved and followed.
 - (b) Specified monitoring and reporting requirements shall be met.
- (2) Spreading and Compacting Requirements
 - (a) Solid waste shall be restricted into the smallest area feasible.
 - (b) Solid waste shall be compacted as densely as practical into cells.
- (3) Cover Requirements
 - (a) Solid waste shall be covered after each day of operation, with a compacted layer of at least six inches of suitable cover or as specified by the Division.
 - (b) Areas which will not have additional wastes placed on them for 12 months or more, but where final termination of disposal operations has not occurred, shall be covered with a minimum of one foot of intermediate cover.
 - (c) After final termination of disposal operations at the site or a major part thereof, or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.
- (4) Erosion Control Requirements
 - (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site.
 - (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.
- (5) Drainage Control Requirements
 - (a) Surface water shall be diverted from the operational area.
 - (b) Surface water shall not be impounded over or in waste.
 - (c) Completed areas shall be adequately sloped to allow surface water runoff in a controlled manner.
- (6) Vegetation Requirements
 - (a) Within six months after final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be stabilized with native grasses.
 - (b) Temporary seeding will be utilized as necessary to stabilize the site.
- (7) Water Protection Requirements
 - (a) The separation distance of four feet between waste and water table shall be maintained unless otherwise specified by the Division in the permit.
 - (b) Solid waste shall not be disposed of in water.
 - (c) Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to the discharge of leachate to surface waters.
- (8) Access and Security Requirements
 - (a) The site shall be adequately secured by means of gates, chains, berms, fences, and other security measures approved by the Division, to prevent unauthorized entry.
 - (b) An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.
 - (c) The access road to the site shall be of all-weather construction and maintained in good condition.
 - (d) Dust control measures shall be implemented where necessary.

(9) Sign Requirements

- (a) Signs providing information on dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.
- (b) Signs shall be posted stating that no hazardous or liquid waste can be received without written permission from the Division.
- (c) Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.

(10) Safety Requirements

- (a) Open burning of solid waste is prohibited.
- (b) Equipment shall be provided to control accidental fires or arrangements shall be made with the local fire protection agency to immediately provide fire-fighting services when needed.
- (c) Fires that occur at a sanitary landfill shall be reported to the Division within 24 hours and a written notification shall be submitted within 15 days.
- (d) The removal of solid waste from a sanitary landfill is prohibited unless the owner/operator approves and the removal is not performed on the working face.
- (e) Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein.

(11) Waste Acceptance and Disposal Requirements

- (a) A site shall only accept those solid wastes which it is permitted to receive. The landfill operator shall notify the Division within 24 hours of attempted disposal of any waste the landfill is not permitted to receive, including waste from outside the area the landfill is permitted to serve.
- (b) No hazardous or liquid waste shall be accepted or disposed of in a sanitary landfill.
- (c) Spoiled foods, animal carcasses, abattoir waste, hatchery waste, and other animal waste delivered to the disposal site shall be covered immediately.
- (d) Asbestos waste that is packaged in accordance with 40 CFR 61, which is adopted by reference in accordance with G.S. 150B-14(c), may be disposed of separate and apart from other solid wastes at the bottom of the working face or in an area not contiguous with other disposal areas, in either case, in virgin soil. Separate areas shall be clearly marked so that asbestos is not exposed by future land-disturbing activities. The waste shall be covered immediately with soil in a manner that will not cause airborne conditions. Copies of 40 CFR 61 may be obtained and inspected at the Division.
- (e) Wastewater treatment sludges may only be used as a soil conditioner and incorporated into the final two feet of cover. Sludges shall be examined for acceptance by Waste Determination procedures in Rule .0103(d) of this Subchapter.

(12) Miscellaneous Requirements

- (a) Effective vector control measures shall be applied to control flies, rodents, and other insects or vermin when necessary.
- (b) Appropriate methods such as fencing and diking shall be provided within the area to confine solid waste subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.

History Note: Statutory Authority G.S. 130A-294; Eff. April 1, 1982

North Carolina
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Interim Director

November 18, 2002

Mr. Judson Whitehurst, President
C&D Landfill, Inc.
802 Recycling Lane
Greenville, North Carolina 27834

Subject: Solid Waste Permit No. 74-07
C&D Landfill, Inc. Construction and Demolition(C&D) Landfill
Highway 264, Pactolus Township, Greenville, Pitt County, North Carolina.
Modification #2: PTO request for Cells 1 thru 6, Phase 1A

Dear Mr. Whitehurst:

The referenced revised PERMIT TO OPERATE is issued in accordance with N.C.G.S. 130A-294 and the N.C. Solid Waste Management Rules, 15A NCAC 13B, .0201(b)(1). Enclosed is attachment 1, which lists documents included in the Approved Plan. The approved facility description includes the area described in the attached legal description. Within the approved facility, the initial operating area is Phase 1A (Cells 1 thru 6, for the first five year phase) is permitted to receive construction and demolition waste as shown on Drawing 2 of 9 (Site Plans), consistent with drawings dated 10 November 2002 and received 12 November 2002.

This permit is for the operation of the first five-year phase (Phase 1A, Cells 1 thru 6) consistent with Drawing 2 of 9 Phase 1A excavation and Drawing 5 of 9 cross sections of the approved plans. At the end of the first five-year operational period, C&D Landfill, Inc. may apply for an expansion into and operation of the vertical phase, but will be subject to all rules in effect at that time. This permit is issued to C&D Landfill, Inc. as the owner and operator of the facility.

Please refer to the GENERAL Conditions of this permit for recordation procedures, the definition of the approved plan, and for general terms of the Solid Waste Permit. The CONSTRUCTION AND OPERATION conditions describe permitted fill areas, acceptable waste types, landfill operation, and requirements which must be satisfied prior to operation of the facility as a Construction & Demolition landfill. Specific requirements for groundwater monitoring and facility record keeping and reporting are described in the MONITORING AND REPORTING conditions.

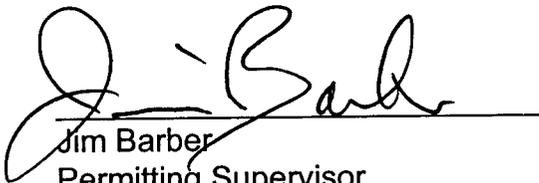
Mr. Whitehurst
Page 2
November 18, 2002

Please review the Conditions of Permit thoroughly, especially the following specific conditions:

- A. In accordance with Monitoring and Reporting Requirement No. 13(e) groundwater quality monitoring wells must be installed and sampled prior to accepting waste at this landfill and on a semi-annual basis thereafter. Please consult with Ms. Cheryl Marks, Solid Waste Section Project Hydrogeologist at (919) 733-0692, Ext. 342 if you have any questions about long term groundwater monitoring at this site.

Again, please review the Conditions of Permit thoroughly and contact me if you have any questions or if you require further clarification. Mr. Chuck Boyette is the Solid Waste Section Waste Management Specialist for this area and can be contacted at the DENR Washington Regional Office by phone at (252) 946-6481. Jim Barber can be contacted at the Raleigh Central Office at (919) 733-0692 Extension 255.

Respectfully,



Jim Barber
Permitting Supervisor
Solid Waste Section

cc: Mark Fry
Chuck Boyette
John Tucker
✓ Raleigh Central File: Pitt County; 74-07 Permit File

PERMIT NO.: 74-07
DATE ISSUED(PTC): 04/26/01
DATE ISSUED(PTO): 05/29/01
MODIFICATION #2(PTO): 11/18/02

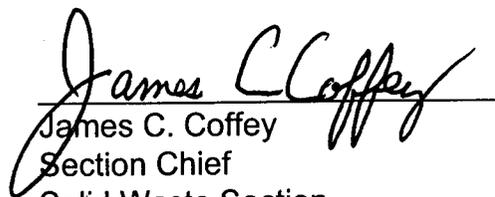
STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
1646 MAIL SERVICE CENTER; RALEIGH, NC 27699-1646

SOLID WASTE PERMIT
C&D LANDFILL INCORPORATED

is hereby issued a PERMIT TO OPERATE a

Construction and Demolition Landfill unit, PHASE 1A (Cells 1 thru 6)

located on the south side of Highway 264 in Pactolus Township, Pitt County, North Carolina 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 facility is located and described by the legal description of the site included with this permit and further identified on the deed recorded for this property in Book: 1098 and Page(s): 156 - 158 in the Pitt County Register of Deeds for C&D Landfill, Inc..


James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

PERMIT NO.:	74-07
DATE ISSUED(PTC):	04/26/01
DATE ISSUED(PTO):	05/29/01
MODIFICATION #2(PTO):	11/18/02

SOLID WASTE PERMIT
PERMIT TO OPERATE
C&D LANDFILL INCORPORATED

A Construction and Demolition Debris Landfill Unit - PHASE 1A: CELLS 1 thru 6

CONDITIONS OF PERMIT:

GENERAL

1. This PERMIT TO OPERATE will be in effect for FIVE YEARS from the original date of issuance (29 May 2006) and will be reviewed, every five years in accordance with 15A NCAC 13B .0201(c), under rules in effect at the time of review. Modifications to the facility may be required in accordance with rules in effect at the time of review. This permit shall not be effective unless the PERMIT TO CONSTRUCT along with the certified copy is filed in the Register of Deeds Office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy shall be returned to the Solid Waste Section and shall have indicated on it the page, book number, date of recordation and the Register's seal.

When this property is sold, leased, transferred or conveyed, 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.

2. The approved plan is described by Attachment 1, "List of Documents for Approved Plan". Where discrepancies may exist, the most recent submittal and the Conditions of Permit shall govern. Some components of the approved plan are reiterated in the Conditions of Permit.
3. This permit is not transferable.
4. This facility may receive waste that is generated within the service area described in the franchise application approved by Pitt County and includes the following counties: Pitt, Beaufort, Pamlico, Craven, Lenoir, Greene, Jones, Wayne, Wilson, Nash, Edgecombe, Halifax, Northampton, Bertie, Martin, Chowan, Washington, Tyrrell and Hyde.

CONSTRUCTION

5. This permit is for the operation of the C&D Landfill, Inc.(CDLI) Construction and Demolition(C&D) Landfill unit denoted as Phase 1A - CELLS 1 - 8 in accordance with the approved site plan drawing 2 of 9 dated 9 March 2001(received 26 August 2002), and the as-built record drawing 2 of 9 dated 10 November 2002(received 12 November 2002). Prior to placing waste in other areas of Phase 1A(CELLS 7 & 8), consistent with the above mentioned drawing dated 9 March 2001, certification that groundwater monitoring wells MW-9s and MW-9d have been constructed and installed in accordance with the approved plans.
6. All sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4. Native vegetation shall be established on the completed C&D landfill unit in accordance with 15A NCAC 13B .0505 (3)(b)(c).
7. The following requirements shall be met prior to and during operation of this C&D unit,(i.e. Prior to the issuance of a future PERMITS TO OPERATE):
 - a. C&D unit preparation shall be in accordance with the construction plan, sheet 2 of 9, and the conditions specified herein; and construction of PHASE 1A(Cells 1 - 8) shall be certified by the design engineer to be constructed in accordance with the approved plans.
 - b. C&D unit inspection shall be made by a representative of the Division of Waste Management (DWM) with the owner/operator.
 - c. Signs shall be posted at the entrance(at or near U.S. Highway 264) of the C&D Landfill Inc., in accordance with the Access and Safety Requirements under Operation Condition .0505(8).
 - d. Groundwater monitoring wells (see Monitoring and Reporting Requirements) shall be installed consistent with condition 13(a) thru (g). A baseline sampling for water quality shall be performed. Well construction records, soil boring logs and sample analysis results shall be submitted to the Section Hydrogeologist for review and approval prior to operation of the C&D unit.
 - e. Inspection and certification of the PHASE 1A(CELL 4) subgrade, by the project hydrogeologist, to determine if subgrade conditions are consistent with the observations made during the initial site investigations and information provided in the site hydrogeology report. If conditions found are different than conditions stated in the hydrogeologic report or that would impact or have an effect on the proposed ground water monitoring system; then a revised ground watering monitoring plan will be required.

OPERATION:

8. This C&D unit is permitted to receive the following waste types:
- a. Land-clearing debris as defined in G.S. 130A-290, specifically, solid waste which is generated solely from land-clearing activities, such as stumps, trees, etc.;
 - b. Inert debris defined as solid waste which consists solely of material that is virtually inert, such as brick, concrete, rock and clean soil; and
 - c. Asphalt in accordance with G.S. 130-294(m).
 - d. Construction and demolition debris defined as solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures.

Yard trash as defined in G.S. 130A-290, shall not be disposed in the landfill area. However, yard trash, along with land-clearing debris, may be accepted for processing in the Yard Waste Composting Area or disposed of in a LCID landfill.

9. Operation of the C&D landfill unit shall conform to the operating procedures described in the approved plan, in accordance with Section .0505 of the Solid Waste Management Rules, and in accordance with the following requirements:

Waste Acceptance and Disposal

- a. The C&D unit shall accept only those solid wastes which it is permitted to receive as outlined in condition 8.
- b. No municipal solid waste, hazardous waste, or liquid waste shall be accepted for disposal in the C&D unit.
- c. The permittee shall implement a program for the C&D unit for detecting and preventing the disposal of MSW, hazardous or liquid wastes. The program shall include, at a minimum:
 - (i) Random inspections of incoming loads or other comparable procedures;
 - (ii) Records of any inspections;
 - (iii) Training of personnel to recognize hazardous and liquid wastes;
 - (iv) Development of a contingency plan to properly manage any identified hazardous, liquid or MSW wastes; The plan must address identification, removal, storage, and final disposition of waste.

Cover Material Requirements

- d. Operational soil cover of at least six inches shall be placed at least once per week or when the active area reaches 1/2 acre in size, or more often as necessitated by the nature of the waste, as to prevent the site from becoming a visual nuisance and to prevent fire, windblown materials, vectors, or excessive water infiltration.
 - (I) Alternate cover consisting of 6" of soil, ground mulch and sheetrock can be used in lieu of 6" of soil solely, as addressed in the demonstration documented by letter dated 10 October 2002;
 - (II) If one component of the three proposed is not available, then a 50% soil mixture shall be used at a minimum with the sheetrock or ground mulch and at no time will only ground mulch and sheetrock be used without soil;
 - (III) Soil borrow shall come from on-site property or the Lewis mine, adjacent to the site.

- e. Areas which will not have additional waste placed on them for 12 months or more, but where final termination of operations has not occurred, shall be covered with a minimum of one foot of soil cover[15A NCAC 13B .0505(3)(b)].
- f. After final termination of disposal operations at the C&D unit or major part thereof, or upon revocation of a permit, the fill areas shall be covered with at least two feet of suitable compacted earth[15A NCAC 13B .0505(3)(c)] or a cap as specified by the rules in effect at the time of closure.

Access and Safety

- g. The C&D unit shall be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the DWM to prevent unauthorized entry.
- h. An attendant shall be on duty at the CDLI landfill at all times while it is open for public use to ensure compliance with operational requirements.
- i. The access road from U.S. Highway 264 to the C&D unit shall be of all-weather construction and maintained in good condition.
- j. Dust control measures shall be implemented when necessary.
- k. Signs providing information on dumping procedures, the hours of operation, the permit number, and other pertinent information shall be posted at the entrance to the CDLI landfill.
- l. Signs shall be posted stating that no MSW, hazardous waste or liquid waste can be received in the C&D unit.
- m. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
- n. The removal of solid waste from the facility is prohibited unless the owner/operator approves and the removal is not performed on the working face. If C&D recycling is to take place in the future; amendment of the operations plan shall be submitted to the Solid Waste Section for approval.
- o. Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein, except fiber drums containing asbestos. Asbestos waste shall be managed in accordance with 40 CFR 61.
- p. Open burning of solid waste is prohibited. Fires shall be reported to the Solid Waste Section by phone within 24 hours of an incident and written notification shall be submitted within 14 working days addressing the events at the site and future actions to be taken in the future to avoid and or mitigate potential fire hazards.
- q. The concentration of explosive gases generated by the C&D unit shall not exceed:

- i. twenty-five percent of the lower explosive limit(1.25% of CH₄) for gases in site structures (excluding gas control or recovery system components if necessary; and
- ii. One hundred percent of the lower explosive limit(5% CH₄) for gases at the property boundary. Installation of permanent gas monitoring wells may be required in the future to demonstrate compliance.

Erosion and Sedimentation Control

- r. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site of the C&D unit.
- s. Adequate sedimentation and erosion control measures shall be practiced to prevent excessive on-site erosion.
- t. Provisions for a vegetative ground cover sufficient to restrain erosion must be accomplished within 30 working days or 120 calendar days upon completion of any phase of C&D landfill unit development or as addressed in the approved Sedimentation and Erosion Control permit.

Drainage Control and Water Protection Requirements

- u. Surface water shall be diverted from the operational area.
 - v. Surface water shall not be impounded over or in waste.
 - w. A separation distance of at least four feet shall be maintained between the C&D waste and the groundwater table; as addressed in the site suitability application, hydrologic assessment section.
 - x. Solid waste(C&D) shall not be disposed of in water.
 - y. Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to discharge of leachate to surface waters and or for land disturbing activities greater than one acre.
10. All pertinent landfill operating personnel will receive training and supervision necessary to properly operate this C&D landfill unit in accordance with G.S. 130A-309.25 and addressed by memorandum dated 29 November 2000.
11. Ground water quality for the C&D landfill unit is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B.
12. A closure and post-closure plan must be submitted for approval at least 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 shall address the following:
- a. Design of a final cover system as required by 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;
- c. Surface water, ground water, and explosive gas monitoring.

MONITORING AND REPORTING REQUIREMENTS

13. Ground-water monitoring wells and monitoring requirements for the CDLI landfill unit:
- a. Monitoring well design and construction shall conform to the specifications outlined in, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities-DRAFT" and water quality sampling and analysis shall be done in accordance with Construction and Demolition landfills and Closed Sanitary Landfills
 - b. A total of eleven locations for ground water wells(MW-1d, MW-1s, MW-2d, MW-2s, MW-4 thru MW-8 and MW-9s & MW-9d) and three surface water locations(SW-1, SW-2, & SW-3) [in accordance with the approved revised Groundwater Monitoring Plan dated March 2001, updated 2 April 2001 from David Garrett, P.G., P.E.] as outlined on page 13 of the water quality monitoring plan located in the permit to construct application.
 - c. A geologist shall be in the field to supervise well installation. The exact locations, screened intervals, and nesting of the wells shall be established after consultation with the SWS Hydrogeologist at the time of well installation.
 - d. For each monitoring well constructed, a well completion record shall be submitted to DWM within 30 days upon completion.
 - e. Prior to the acceptance of any waste at the C&D unit, a baseline sampling event shall be completed and analysis submitted to the SWS Hydrogeologist.
 - f. Sampling equipment, procedures, and parameters shall conform to specifications outlined in the above-referenced guidance document,[Monitoring and Reporting Requirements, condition 14(a) pg. 8] or the current guidelines established by DWM at the time of sampling.
 - g. In order to determine ground-water flow directions and rates, each monitoring well shall be surveyed, and hydraulic conductivity values and effective porosity values shall be established for the screened intervals for each monitoring well.
 - h. The permittee shall sample the monitoring wells semi-annually or as directed by the SWS Hydrogeologist. In addition to the wells described in condition 14(b); surface water locations SW-1, SW-2 and SW-3 shall, as shown on the revised Groundwater Monitoring Plan dated 29 March 2001, updated 2 April 2001, also be sampled semi-annually as part of the monitoring system.
 - i. A readily accessible unobstructed path shall be initially cleared and maintained so that four-wheel drive vehicles may access the monitoring wells at all times.

14. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the analytical data for each water quality monitoring sampling event shall be submitted to DWM in a timely manner.
15. The permittee shall maintain a record of the amount of solid waste received at the C&D unit, compiled on a monthly basis. Scales shall be used to weigh the amount of waste received.
16. On or before 01 August 2003, and each year thereafter, the permittee shall report the amount of waste received (in tons) at the C&D unit and disposed of in the C&D landfill unit to the Solid Waste Section and to all counties from which waste was accepted, on forms prescribed by the Section. This report shall include the following information:
 - a. The reporting period shall be for the previous year, beginning 01 July and ending on 30 June;
 - b. The amount of waste received and landfilled in tons, compiled on a monthly basis, and;
 - c. Documentation that a copy of the report has been forwarded to all counties from which waste was accepted.
17. All records shall be maintained on-site and made available to the SWS upon request, specifically records generated by conditions 10(c), 10(o), 9, 13,14, 15 & 16.

ATTACHMENTS
C&D LANDFILL INC.
List of Documents for the Approved Plan

SITE SUITABILITY:

1. Conceptual Construction Plans for site suitability review dated 15 December 2000 and received 19 December 2000.
2. PART 1 - SITE SUITABILITY APPLICATION for C&D Landfill Inc. dated December 2000 and received 19 December 2000.
3. Letter dated 21 December 2000 from Thomas B. Robinson, Pitt County Manager, indicating that the Pitt County Board of Commissioners approved the franchise for C&D Landfill Inc.
4. Letter dated 16 January 2001 from Berry Gray addressing zoning.
5. Response to hydrogeologic comments, letter dated 15 February 2001 and revised drawing F4.
6. Additional site suitability information transmitted to the Section via letter dated 20 February 2001 with the following items;
 - a. Revised facility boundary survey drawing
 - b. FEMA FIRM map for that portion of Pitt County with C&D Landfill located
 - c. Letter dated 29 December 2000 from David Brook with NC Department of Cultural Resources
 - d. Letter dated 29 January 2001 from Michael P. Schafale with the Div. Of Parks and Recreation, Natural Heritage Program
 - e. APPLICATION FOR FRANCHISE TO OPERATE CONSTRUCTION AND DEMOLITION DEBRIS (C&D) LANDFILL dated 23 October 2000
 - f. Certified copy of Pitt County Commissioners meeting minutes dated 10 January 2001 from Susan J. Banks
 - g. Certified copy of Pitt County Commissioners meeting minutes dated 20 February 2001 from Susan J. Banks
 - h. Letter dated 18 January 2001 from Traci Belch addressing zoning.
7. Memorandum dated 28 February 2001 from Cheryl Marks indicating that the hydrogeologic aspects of the C&D Landfill Inc. site met site suitability.
8. Letter dated 1 March 2001 from Thomas B. Robinson, Pitt County Manager, addressing Pitt County's position on the approval of a franchise for C&D Landfill Inc. to include certification from Susan B. Banks and additional copies of the board minutes.

PERMIT TO CONSTRUCT:

9. Initial construction plans and construction application dated March 2000 and received 6 April 2000.
10. Revised pages to the Water Quality Monitoring plan dated 2 April 2001, received 2 April 2001.
11. Memorandum dated 25 April 2001 from David Garrett to Cheryl Marks addressing monitoring well placement based on hydrogeologic modeling.
12. Erosion and Sedimentation Control approval letter from Pitt County dated 26 April 2001, received 26 April 2001.
13. Updated Construction Plans and Construction application dated 25 April 2001, received 16 May 2001.
14. Letter dated 7 May 2001 from Cheryl Marks approving the monitoring plan, as part of the Permit to Construct application.
15. Revised site plan for the construction of cells 1 thru 8 and revisions to the operating height of Phase 1A.
16. Letter dated 23 August 2002 addressing the proposed construction changes and operational changes for C&D Landfill Inc.
17. Plan sheet 3 of 9 indicating the locations of existing and new monitoring locations at the facility.

PERMIT TO OPERATE:

18. Certification letter dated 29 May 2001 from John Tucker addressing construction excavation limits for PHASE 1A - Cell 1.
19. Record drawings of as-built conditions dated 29 May 2001, received 29 May 2001 for Phase 1A Cell 1 construction.
20. Revised Operations Manual for C&D Landfill Inc. dated May 2001, received 29 May 2001.
21. Certification letter dated 3 August 2001, received 8 August 2001, from John Tucker addressing construction excavation limits for PHASE 1A - Cells 2 & 3.
22. Record drawings of as-built conditions dated 3 August 2001, received 8 August 2001 for Phase 1A Cells 2 & 3.
23. Record drawings of as-built conditions dated 10 November 2002, received 12 November 2002 for Phase 1A Cells 5,6,7 & 8.
24. Construction certification letter dated 11 November 2002 from John Tucker.

North Carolina
Department of Environment and Natural Resources

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

November 12, 2002



Mr. Judson Whitehurst, President
C&D Landfill, Inc.
802 Recycling Lane
Greenville, North Carolina 27834

Subject: Solid Waste Permit No. 74-07
C&D Landfill Incorporated Construction and Demolition(C&D) Landfill
802 Recycling Lane, Greenville, Pitt County, North Carolina.
Modification #2: Revised construction plan Cells 1 thru 8.

Dear Mr. Whitehurst:

The referenced revised PERMIT TO CONSTRUCT is issued in accordance with N.C.G.S. 130A-294 and the N.C. Solid Waste Management Rules, 15A NCAC 13B, .0201(b)(1). Enclosed is attachment 1, which lists documents included in the Approved Plan. The approved facility description includes the area described in the attached legal description. Within the approved facility, the initial area identified as Phase 1A (Cells 1 thru 8 to elevation 65 msl, for the five year phase) is permitted for construction as shown on Sheet No. 2 of 9 (PHASE 1A Excavation) and consistent with drawings noted as sheets 4 of 9 thru 7A of 9 dated 9 March 2001, received 26 August 2002.

This permit is for the construction of the first five-year phase (Phase 1A, Cells 1 thru 8) consistent with Sheet No. 2 of 9 (PHASE 1A - Excavation). At the end of the first five-year operational period, C&D Landfill Inc. may apply for an expansion into and construction of Phase 2, but will be subject to all rules in effect at that time. This permit is issued to C&D Landfill Inc. as the owner and operator of the facility.

Please refer to the GENERAL CONDITIONS of this permit for recordation procedures, the definition of the approved plan, and for general terms of the Solid Waste Permit. The CONSTRUCTION AND OPERATION conditions describe permitted fill areas, acceptable waste types, landfill operation, and requirements which must be satisfied prior to operation of the facility as a Construction & Demolition landfill. Specific requirements for groundwater monitoring and facility record keeping and reporting are described in the MONITORING AND REPORTING conditions.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us/

Mr. Whitehurst
Page 2
November 12, 2002

Please review the Conditions of Permit thoroughly, especially the following specific conditions:

- A. Monitoring and Reporting Requirement No. 12(e) requires that the groundwater quality monitoring wells must be installed and sampled prior to accepting waste at this landfill. Please consult with Ms. Cheryl Marks, Solid Waste Section Project Hydrogeologist at (919) 733-0692, Ext. 342 just prior to well construction to help ensure that completed wells meet well construction standards and will be acceptable for monitoring purposes.

Again, please review the Conditions of Permit thoroughly and contact me if you have any questions or if you require further clarification. Mr. Chuck Boyette is the Solid Waste Section Waste Management Specialist for this area and can be contacted at the DENR Washington Regional Office by phone at (252) 946-6481 and Jim Barber can be contacted at the Raleigh Central Office at (919) 733-0692 Extension 255.

Respectfully,



Jim Barber
Permitting Supervisor
Solid Waste Section

cc: Mark Fry
Chuck Boyette
John Tucker
✓ Raleigh Central File: Pitt County; 74-07 Permit File

CERTIFIED COPY

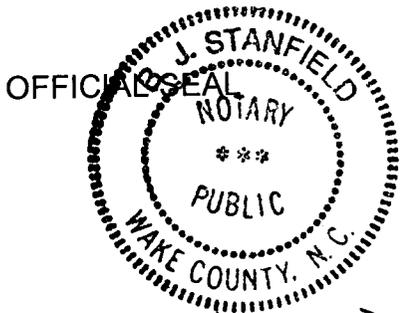
I DO HEREBY CERTIFY THAT THE ATTACHED PERMIT IS AN EXACT AND TRUE COPY OF PERMIT NUMBER 74-07.

James C Coffey
James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

North Carolina
Wake County

I, D. J. STANFIELD, a Notary Public for
said County and State, do hereby certify that JAMES C. COFFEY
of the Solid Waste Section, personally appeared before me this
day and acknowledged the due execution of the foregoing
instrument.

Witness my hand and official seal, this the 18 day of
NOVEMBER, 2002.



D. J. Stanfield
NOTARY PUBLIC

My commission expires DECEMBER 29, 2004.

PERMIT NO.:	74-07
DATE ISSUED(PTC):	04/26/01
DATE ISSUED(PTO):	05/29/01
MODIFICATION #2(PTC):	11/12/02

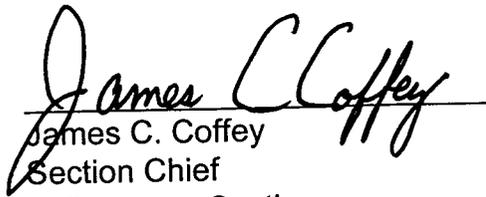
STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
1646 MAIL SERVICE CENTER; RALEIGH, NC 27699-1646

SOLID WASTE PERMIT

C&D LANDFILL INCORPORATED

is hereby issued a PERMIT TO CONSTRUCT a
Construction and Demolition Landfill unit, PHASE 1A (Cells 1 thru 8)

located on the south side of Highway 264 in Pactolus Township, Pitt County, North Carolina 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 facility is located and described by the legal description of the site included with this permit and further identified on the deed recorded for this property in Book: 1098 and Page(s): 156 - 158 in the Pitt County Register of Deeds for C&D Landfill, Inc..


James C. Coffey
Section Chief
Solid Waste Section
Division of Waste Management

PERMIT NO.:	74-07
DATE ISSUED(PTC):	04/26/01
DATE ISSUED(PTO):	05/29/01
MODIFICATION #2(PTC):	11/12/02

SOLID WASTE PERMIT
PERMIT TO CONSTRUCT
C&D LANDFILL INC.(CDLI)

A Construction and Demolition Debris Landfill Unit - PHASE 1(CELLS 1 - 8)

CONDITIONS OF PERMIT:

GENERAL

1. This PERMIT TO CONSTRUCT will be in effect for eighteen months from date of issuance and may be reviewed under rules in effect at that time if the facility is not constructed within this time frame. Modifications to the facility may be required in accordance with rules in effect at the time of review. This permit shall not be effective unless the PERMIT TO CONSTRUCT along with the certified copy is filed in the Register of Deeds Office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy shall be returned to the Solid Waste Section and shall have indicated on it the page, book number, date of recordation and the Register's seal.

When this property is sold, leased, transferred or conveyed, 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.

2. The approved plan is described by Attachment 1, "List of Documents for Approved Plan". Where discrepancies may exist, the most recent submittal and the Conditions of Permit shall govern. Some components of the approved plan are reiterated in the Conditions of Permit.
3. This permit is not transferable.
4. This permit is for a period of five years from the date of the PERMIT TO OPERATE and is subject to review on or before the date of the PERMIT TO OPERATE as per 15A NCAC 13B .0201(c). Modifications to the facility may be required in accordance with the rules in effect at the time of the review.

CONSTRUCTION

5. This permit is for the construction of the C&D Landfill, Inc.(CDLI) Construction and Demolition(C&D) Landfill unit denoted as Phase 1A (Cells 1 - 8) in accordance with the site plan drawing 2 of 9 dated 9 March 2001(received 26 August 2002) , titled Excavation and Fill Plan - Phase 1A . Prior to placing waste in areas of Phase 1A, consistent with the above mentioned drawing, certification that Phase 1A has been constructed and graded in accordance with the approved plans will be required.
6. All sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4. Native vegetation shall be established on the completed C&D landfill unit in accordance with 15A NCAC 13B .0505 (3)(b)(c).
7. The following requirements shall be met prior to operation of this C&D unit,(i.e. Prior to the issuance of a PERMIT TO OPERATE):
 - a. C&D unit preparation shall be in accordance with the construction plan, sheet 2 of 9, and the conditions specified herein; and construction of PHASE 1A (Cells 1 - 8) shall be certified by the design engineer to be constructed in accordance with the approved plans.
 - b. C&D unit inspection shall be made by a representative of the Division of Waste Management (DWM) with the owner/operator.
 - c. Signs shall be posted at the entrance(at or near U.S. Highway 264) of the CDLI landfill, in accordance with the Access and Safety Requirements under Operation Condition .0505(8).
 - d. Groundwater monitoring wells (see Monitoring and Reporting Requirements) shall be installed, per plan sheet 3 of 9 dated 9 March 2001 and received 10 October 2002, consistent with condition 13(a) thru (g). A baseline sampling for water quality shall be performed. Well construction records, soil boring logs and sample analysis results shall be submitted to the Section Hydrogeologist for review and approval prior to operation of the C&D unit, along with a as-built drawing indicating location(s) of wells with horizontal and vertical control.
 - e. Inspection and certification of the PHASE 1A (Cells 1 - 8) subgrade, by the project hydrogeologist, to determine if subgrade conditions are consistent with the observations made during the initial site investigations and information provided in the site hydrogeology report. If conditions found are different than conditions stated in the hydrogeologic report or that would impact or have an effect on the proposed ground water monitoring system; then a revised ground watering monitoring plan will be required.

OPERATION:

8. This C&D unit is permitted to receive the following waste types:

- a. Land-clearing debris as defined in G.S. 130A-290, specifically, solid waste which is generated solely from land-clearing activities, such as stumps, trees, etc.;
- b. Inert debris defined as solid waste which consists solely of material that is virtually inert, such as brick, concrete, rock and clean soil; and
- c. Asphalt in accordance with G.S. 130-294(m).
- d. Construction and demolition debris defined as solid waste resulting solely from construction, remodeling, repair or demolition operations on pavement, buildings, or other structures.

Yard trash as defined in G.S. 130A-290, shall not be disposed in the landfill area. However, yard trash, along with land-clearing debris, may be accepted for processing in the Yard Waste Composting Area or disposed of in a LCID landfill.

9. Operation of the C&D landfill unit shall conform to the operating procedures described in the approved plan, in accordance with Section .0505 of the Solid Waste Management Rules, and in accordance with the following requirements: Waste Acceptance and Disposal.

- a. The C&D unit shall accept only those solid wastes which it is permitted to receive as outlined in condition 8.
- b. No municipal solid waste, hazardous waste, or liquid waste shall be accepted for disposal in the C&D unit.
- c. The permittee shall implement a program for the C&D unit for detecting and preventing the disposal of MSW, hazardous or liquid wastes. The program shall include, at a minimum:
 - (i) Random inspections of incoming loads or other comparable procedures;
 - (ii) Records of any inspections;
 - (iii) Training of personnel to recognize hazardous and liquid wastes;
 - (iv) Development of a contingency plan to properly manage any identified hazardous, liquid or MSW wastes; The plan must address identification, removal, storage, and final disposition of waste.

Cover Material Requirements

- d. Operational soil cover of at least six inches shall be placed at least once per week or when the active area reaches $\frac{1}{2}$ acre in size, or more often as necessitated by the nature of the waste, as to prevent the site from becoming a visual nuisance and to prevent fire, windblown materials, vectors, or excessive water infiltration.

- e. Areas which will not have additional waste placed on them for 12 months or more, but where final termination of operations has not occurred, shall be covered with a minimum of one foot of soil cover [15A NCAC 13B .0505(3)(b)].
- f. After final termination of disposal operations at the C&D unit or major part thereof, or upon revocation of a permit, the fill areas shall be covered with at least two feet of suitable compacted earth [15A NCAC 13B .0505(3)(c)] or a cap as specified by the rules in effect at the time of closure.

Access and Safety

- g. The C&D unit shall be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the DWM to prevent unauthorized entry.
- h. An attendant shall be on duty at the CDLI landfill at all times while it is open for public use to ensure compliance with operational requirements.
- i. The access road from U.S. Highway 264 to the C&D unit shall be of all-weather construction and maintained in good condition.
- j. Dust control measures shall be implemented when necessary.
- k. Signs providing information on dumping procedures, the hours of operation, the permit number, and other pertinent information shall be posted at the entrance to the CDLI landfill.
- l. Signs shall be posted stating that no MSW, hazardous waste or liquid waste can be received in the C&D unit.
- m. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
- n. The removal of solid waste from the facility is prohibited unless the owner/operator approves and the removal is not performed on the working face. If C&D recycling is to take place in the future; amendment of the operations plan shall be submitted to the Solid Waste Section for approval.
- o. Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein, except fiber drums containing asbestos. Asbestos waste shall be managed in accordance with 40 CFR 61.
- p. Open burning of solid waste is prohibited. Fires shall be reported to the Solid Waste Section by phone within 24 hours of an incident and written notification shall be submitted within 14 working days addressing the events at the site and future actions to be taken in the future to avoid and or mitigate potential fire hazards.
- q. The concentration of explosive gases generated by the C&D unit shall not exceed:

- i. twenty-five percent of the lower explosive limit(1.25% of CH₄) for gases in site structures (excluding gas control or recovery system components if necessary; and
- ii. One hundred percent of the lower explosive limit(5% CH₄) for gases at the property boundary. Installation of permanent gas monitoring wells may be required in the future to demonstrate compliance.

Erosion and Sedimentation Control

- r. Adequate sedimentation and erosion control measures shall be practiced to prevent silt from leaving the site of the C&D unit.
- s. Adequate sedimentation and erosion control measures shall be practiced to prevent excessive on-site erosion.
- t. Provisions for a vegetative ground cover sufficient to restrain erosion must be accomplished within 30 working days or 120 calendar days upon completion of any phase of C&D landfill unit development or as addressed in the approved Sedimentation and Erosion Control permit.

Drainage Control and Water Protection Requirements

- u. Surface water shall be diverted from the operational area.
 - v. Surface water shall not be impounded over or in waste.
 - w. A separation distance of at least four feet shall be maintained between the C&D waste and the groundwater table; as addressed in the site suitability application, hydrologic assessment section.
 - x. Solid waste(C&D) shall not be disposed of in water.
 - y. Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to discharge of leachate to surface waters and or for land disturbing activities greater than one acre.
10. All pertinent landfill operating personnel will receive training and supervision necessary to properly operate this C&D landfill unit in accordance with G.S. 130A-309.25 and addressed by memorandum dated 29 November 2000(enclosed).
 11. Ground water quality for the C&D landfill unit is subject to the classification and remedial action provisions referenced in Rule .0503 (2)(d) of 15A NCAC 13B.
 12. A closure and post-closure plan must be submitted for approval at least 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 shall address the following:
 - a. Design of a final cover system as required by 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;
- c. Surface water, ground water, and explosive gas monitoring.

MONITORING AND REPORTING REQUIREMENTS

13. Ground-water monitoring wells and monitoring requirements for the C&D landfill unit:
- a. Monitoring well design and construction shall conform to the specifications outlined in, "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities-DRAFT" and water quality sampling and analysis shall be done in accordance with Construction and Demolition landfills and Closed Sanitary Landfills
 - b. A total of eleven locations for ground water wells(MW-1d,MW-1s,MW-2d, MW-2s, MW-4, MW-5 thru MW-8 and MW-9s & MW-9d assumed) and three surface water locations(SW-1, SW-2, SW-3) [in accordance with the approved revised Groundwater Monitoring Plan dated March 2001, updated 2 April 2001 and received 2 April 2001 from David Garrett, P.G., P.E.] as outlined on page 13 of the water quality monitoring plan located in the permit to construct application.
 - c. A geologist shall be in the field to supervise well installation. The exact locations, screened intervals, and nesting of the wells shall be established after consultation with the SWS Hydrogeologist at the time of well installation.
 - d. For each monitoring well constructed, a well completion record shall be submitted to DWM within 30 days upon completion.
 - e. Prior to the acceptance of any waste at the C&D unit, a baseline sampling event shall be completed and analysis submitted to the SWS Hydrogeologist.
 - f. Sampling equipment, procedures, and parameters shall conform to specifications outlined in the above-referenced guidance document,[Monitoring and Reporting Requirements, condition 14(a) pg. 8] or the current guidelines established by DWM at the time of sampling.
 - g. In order to determine ground-water flow directions and rates, each monitoring well shall be surveyed, and hydraulic conductivity values and effective porosity values shall be established for the screened intervals for each monitoring well.
 - h. The permittee shall sample the monitoring wells semi-annually or as directed by the SWS Hydrogeologist. In addition to the wells described in condition 14(b); surface water locations SW-1, SW-2 and SW-3 shall, as shown on the Water Quality Monitoring Plan dated 29 March 2001(updated 2 April 2001), also be sampled semi-annually as part of the monitoring system.
 - i. A readily accessible unobstructed path shall be initially cleared and maintained so that four-wheel drive vehicles may access the monitoring wells at all times.

14. The permittee shall maintain a record of all monitoring events and analytical data. Reports of the analytical data for each water quality monitoring sampling event shall be submitted to DWM in a timely manner.
15. The permittee shall maintain a record of the amount of solid waste received at the C&D unit, compiled on a monthly basis. Scales shall be used to weigh the amount of waste received.
16. On or before 01 August 2001, and each year thereafter, the permittee shall report the amount of waste received (in tons) at the C&D unit and disposed of in the C&D landfill unit to the Solid Waste Section and to all counties from which waste was accepted, on forms prescribed by the Section. This report shall include the following information:
 - a. The reporting period shall be for the previous year, beginning 01 July and ending on 30 June;
 - b. The amount of waste received and landfilled in tons, compiled on a monthly basis, and;
 - c. Documentation that a copy of the report has been forwarded to all counties from which waste was accepted.
17. All records shall be maintained on-site and made available to the SWS upon request, specifically records generated by conditions 10(c), 10(o), 9, 13,14, 15 & 16.

ATTACHMENTS
C&D LANDFILL INC.
List of Documents for the Approved Plan

SITE SUITABILITY:

1. Conceptual Construction Plans for site suitability review dated 15 December 2000 and received 19 December 2000.
2. PART 1 - SITE SUITABILITY APPLICATION for C&D Landfill Inc. dated December 2000 and received 19 December 2000.
3. Letter dated 21 December 2000 from Thomas B. Robinson, Pitt County Manager, indicating that the Pitt County Board of Commissioners approved the franchise for C&D Landfill Inc.
4. Letter dated 16 January 2001 from Berry Gray addressing zoning.
5. Response to hydrogeologic comments, letter dated 15 February 2001 and revised drawing F4.
6. Additional site suitability information transmitted to the Section via letter dated 20 February 2001 with the following items;
 - a. Revised facility boundary survey drawing
 - b. FEMA FIRM map for that portion of Pitt County with C&D Landfill located
 - c. Letter dated 29 December 2000 from David Brook with NC Department of Cultural Resources
 - d. Letter dated 29 January 2001 from Michael P. Schafale with the Div. Of Parks and Recreation, Natural Heritage Program
 - e. APPLICATION FOR FRANCHISE TO OPERATE CONSTRUCTION AND DEMOLITION DEBRIS (C&D) LANDFILL dated 23 October 2000
 - f. Certified copy of Pitt County Commissioners meeting minutes dated 10 January 2001 from Susan J. Banks
 - g. Certified copy of Pitt County Commissioners meeting minutes dated 20 February 2001 from Susan J. Banks
 - h. Letter dated 18 January 2001 from Traci Belch addressing zoning.
7. Memorandum dated 28 February 2001 from Cheryl Marks indicating that the hydrogeologic aspects of the C&D Landfill Inc. site met site suitability.
8. Letter dated 1 March 2001 from Thomas B. Robinson, Pitt County Manager, addressing Pitt County's position on the approval of a franchise for C&D Landfill Inc. to include certification from Susan B. Banks and additional copies of the board minutes.

PERMIT TO CONSTRUCT:

9. Initial construction plans and construction application dated March 2000 and received 6 April 2000.
10. Revised pages to the Water Quality Monitoring plan dated 2 April 2001, received 2 April 2001.
11. Memorandum dated 25 April 2001 from David Garrett to Cheryl Marks addressing monitoring well placement based on hydrogeologic modeling.
12. Erosion and Sedimentation Control approval letter from Pitt County dated 26 April 2001, received 26 April 2001.
13. Updated Construction Plans and Construction application dated 25 April 2001, received 16 May 2001.
14. Letter dated 7 May 2001 from Cheryl Marks approving the monitoring plan, as part of the Permit to Construct application.
15. Revised site plan for the construction of cells 1 thru 8 and revisions to the operating height of Phase 1A.
16. Letter dated 23 August 2002 addressing the proposed construction changes and operational changes for C&D Landfill Inc.
17. Plan sheet 3 of 9 indicating the locations of existing and new monitoring locations at the facility.



EJE Recycling & Disposal, Inc.

802 Recycling Lane • Greenville, NC 27834
(252) 752-8274 • Fax (252) 752-9016



April 16, 2002

Mitchell Blake
C&D Landfill Inc.
802 Recycling Lane
Greenville, NC 27834

Dear Chuck Boyette,

As stated in solid waste permit number 74-07 section 10,D. Operational cover of at least 6" shall be placed at least once per week or when the active area reaches 1/2 acre in size, or more often as necessitated by the nature of the waste, as to prevent the site from becoming a visual nuisance and to prevent fire, windblown materials, vectors, or excessive water infiltration.

C&D Landfill would like to request a 90 day trial for an alternate cover. This cover will consist of three materials 1/3 soil, 1/3 sheetrock, and 1/3 ground wood chips. In return the mixture will utilize two waste streams to form a suitable soil cover. I feel a 90 day trial will prove this mixture will help prevent fire, windblown materials, vectors, and excessive water infiltration.

If you have any further questions, please contact our office.

Thank you,

Mitchell Blake

Mitchell Blake
Yard Manager

APPROVED

DIVISION OF SOLID WASTE MANAGEMENT

DATE 11/18/02 BY JB

74-07

ALT. COVER DEMO

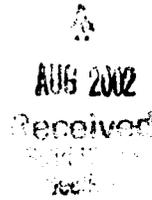
CE COM

PTD 11/18/02

John A. K. Tucker, P.E.
Consulting Engineer

August 23, 2002

Mr. Jim Barber
Permitting Branch, Solid Waste Section
NC Division of Waste Management
P.O. Box 29603
Raleigh, North Carolina 27603



Subject: C&D Landfill, Inc.; Application for Construction and Demolition
Landfill; Pitt County, North Carolina

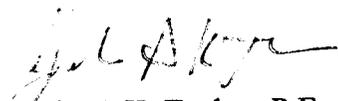
Dear Mr. Barber

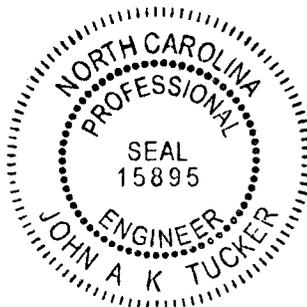
Enclosed are three (3) sets of revised construction drawings for Phase 1-A of C&D Landfill for your review. The revisions depicted in the drawings include the following:

1. The horizontal limits of the current operations have been extended to Cells 5,6,7 and 8.
2. The vertical limits have been reduced from elevation 93 to elevation 65.
3. Airspace volume is now 540,327 cubic yards after allowing for 2 feet of final cover. It is estimated that at a compaction rate of .35 tons per cubic yard and approximately 36,500 tons per year coming to the facility, this phase has an expected life of 5.5 years.
4. It is not anticipated that cell 6 will be immediately constructed. It is currently being used to stockpile material for a demonstration project for alternative cover material. Once the demonstration project ends, the material will be removed and the cell will be prepared to receive material.

I hope you will find this information satisfactory. Please do not hesitate to call if you have any questions.

With Best Regards,


John A.K. Tucker, P.E.



cc: C&D Landfill, Inc.
David Garrett, P.G., P.E.

North Carolina
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Interim Director

August 9, 2001

Mr. Judson Whitehurst, President
C&D Landfill, Inc.
802 Recycling Lane
Greenville, North Carolina 27834

Subject: Solid Waste Permit No. 74-07
C&D Landfill, Inc. Construction and Demolition(C&D) Landfill
Highway 264, Pactolus Township, Greenville, Pitt County, North Carolina.
Modification #1: PTO request for Cells 2 & 3 of PHASE 1.

Dear Mr. Whitehurst:

The referenced PERMIT TO OPERATE is issued in accordance with N.C.G.S. 130A-294 and the N.C. Solid Waste Management Rules, 15A NCAC 13B, .0201(b)(1). Enclosed is attachment 1, which lists documents included in the Approved Plan. The approved facility description includes the area described in the attached legal description. Within the approved facility, the initial operating area (Phase 1A, Cells 1, 2 & 3, sub-cells of the first five year phase) is permitted to receive construction and demolition waste as shown on Drawing 2 of 9 (Site Plans), consistent with drawings dated 9 March 2001 and received 6 April 2001.

This permit is for the operation of the first five-year phase (Phase 1A, Cells 1, 2 & 3 at this time) consistent with Drawing 2 of 9 "Phase 1A excavation" and Drawing 5 of 9 "cross sections" of the approved plans. At the end of the first five-year operational period, C&D Landfill, Inc. may apply for an expansion into and operation of Phase 1B, but will be subject to all rules in effect at that time. This permit is issued to C&D Landfill, Inc. as the owner and operator of the facility.

Please refer to the GENERAL Conditions of this permit for recordation procedures, the definition of the approved plan, and for general terms of the Solid Waste Permit. The CONSTRUCTION AND OPERATION conditions describe permitted fill areas, acceptable waste types, landfill operation, and requirements which must be satisfied prior to operation of the facility as a Construction & Demolition landfill. Specific requirements for groundwater monitoring and facility record keeping and reporting are described in the MONITORING AND REPORTING conditions.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us/

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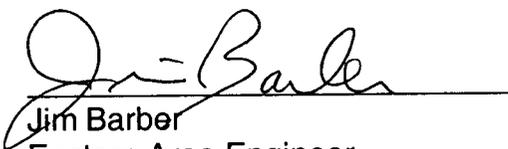
Mr. Whitehurst
Page 2
August 9, 2001

Please review the Conditions of Permit thoroughly, especially the following specific conditions:

- A. In accordance with "Monitoring and Reporting Requirement No. 12(e)" groundwater quality monitoring wells must be installed and sampled prior to accepting waste at this landfill and on a semi-annual basis thereafter. Please consult with Ms. Cheryl Marks, Solid Waste Section Project Hydrogeologist at (919) 733-0692, Ext. 345 if you have any questions about long term groundwater monitoring at this site.

Again, please review the Conditions of Permit thoroughly and contact me if you have any questions or if you require further clarification. Mr. Bobby Nelms is the Solid Waste Section Waste Management Specialist for this area and can be contacted at the DENR Washington Regional Office by phone at (252) 946-6481. Jim Coffey can be contacted at the Raleigh Central Office at (919) 733-0692 Extension 255 or Jim Barber at (919) 733-0692 Extension 344.

Respectfully,



Jim Barber
Eastern Area Engineer
Solid Waste Section
enclosure

cc: Jim Coffey
Mark Fry
Cheryl Marks
Bobby Nelms
John Tucker
✓ Raleigh Central File: Pitt County; 74-07 Permit File

74-07
CF COPY
PTO 11/18/02

John A. K. Tucker, P.E.
Consulting Engineer

November 11, 2002

Mr. Judson Whitehurst
C&D Landfill, Inc.
802 Recycling Lane
Greenville, NC 27834

NOV 2002
Received
John A. K. Tucker

Subject: C&D Landfill
Pitt County, North Carolina

Dear Mr. Whitehurst:

At your request, I have personally inspected construction of Phase 1, Cells 5,6,7,8 of C&D Landfill. All work appears to be in compliance with the approved construction drawings and conditions of your permit. Accordingly, attached is my certification of the facility for your use.

Please let me know if I can be of further assistance.

Very truly yours,


John A.K. Tucker

Enclosure

CERTIFICATION

C&D Landfill, Inc.
US 264
Pitt County, North Carolina

Phase 1, Cells 5,6,7,8

NOV 2002
Approved
[Signature]

I, John A.K. Tucker, P.E., as a duly licensed Professional Engineer in the State of North Carolina, hereby certify that construction of these permitted facilities, as observed, has been completed in substantial accordance with the approved plans and specifications.



John A. K. Tucker
November 11, 2002

Jim,

Enclosed is the submittal from EJE about their alternative cover demo. I have looked at it a few times and have not observed any problems with it.

I do have one concern, that is the dirt part. They have closed their pit and the stockpile from the construction of the new cell is about used up so where are they going to get soil from? Can we amend their permit to allow this alternative cover but require them to tell us where each part of it will come from and the volume that is available?

If you have any questions, give me a call.

Chuck

RECEIVED

OCT 23 2002

**DIVISION OF WASTE MANAGEMENT
FAYETTEVILLE REGIONAL CENTER**

North Carolina
Department of Environment and Natural Resources

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director



July 29, 2002

Mr. Mitchell Blake
C&D Landfill, Inc.
802 Recycling Lane
Greenville, NC 27834

RE: C&D Landfill, Inc. Permit # 74-07
Alternative Cover Demonstration

Dear Mr. Blake:

As we discussed on July 22, 2002, I am extending the demonstration period to end on September 3, 2002. Please use this time to document the use of the cover.

Should you have any questions, please feel free to contact me at (252) 946-6481.

Sincerely,

A handwritten signature in cursive script that reads 'Chuck Boyette'.

Chuck Boyette
Waste Management Specialist
Solid Waste Section



CC: Jim Barber
Mark Fry
Central Files,

North Carolina
Department of Environment and Natural Resources

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director



April 29, 2002

Mr. Mitchell Blake
C&D Landfill, Inc.
802 Recycling Lane
Greenville, NC 27834

RE: C&D Landfill, Inc. Permit # 74-07
Alternative Cover Demonstration

Dear Mr. Blake:

I have received your request to use a mixture of 1/3 soil, 1/3 sheetrock and 1/3 wood chips as an alternative weekly cover. Your request has been approved for a ninety day demonstration. This 90 day period will be used to evaluate and ensure compliance with 15 NCAC .1626(2)(b). 15 NCAC .1626(2)(b) requires an owner/operator to demonstrate that the alternative cover material controls disease vectors, fires, odors, blowing litter and scavenging without presenting a threat to human health and the environment.

You will need to document the use of the material by means of photos, journals and other pertinent information regarding compliance with 15 NCAC .1626 (2)(b). You will also need to document that the activities involving this material were consistent with the operations plan submitted for this demonstration. At the end of this 90 day period, all substantiating information will need to be submitted to this office.

The Solid Waste Section will periodically inspect the referenced facility during this period to ensure that the alternative cover meets the requirements stated above. At the end of this demonstration if it is successful and approved, the permanent use of this mixture will be granted.

If you have any questions, please feel free to contact me at (252) 946-6481.

Sincerely,

A handwritten signature in black ink that reads "Chuck Boyette". The signature is written in a cursive style.

Chuck Boyette
Waste Management Specialist

CC: Jim Coffey
Mark Fry
Courtney Washburn