US Army Corps
of Engineers

Landfill 1 Cover Improvements at the Former Griffiss Air Force Base Rome, New York

Contractor Quality Control Plan Document Series 4 of 5

Conti Environmental, Inc.
South Plainfield, N.J.

October 2002
FINAL

Landfill 1 Landfill Cover and Groundwater/Leachate Treatment

Former Griffiss Air Force Base
Rome, New York

CONTRACTOR QUALITY CONTROL PLAN

Conti Environmental, Inc.

October 2002

FINAL

DOCUMENT SERIES OVERVIEW

The U.S. Army Corps of Engineers (USACE)–Kansas City District, issued Task Order No. 0001 under Contract No. DACA41-01-D-0004 to Conti Environmental, Inc. Under this Task Order, Conti Environmental, Inc. and its' subcontractor, EA Engineering, P.C. and its affiliate EA Engineering, Science, and Technology have been tasked to prepare documents to support landfill closure activities at the former Griffiss Air Force Base, Rome, New York.

A series of documents has been developed in support of each of the five landfills to be closed. The series includes one primary document, and four supporting documents and associated appendices. The following is a list of the documents in the series developed in support of landfill closure, and an abbreviated description of the document. Bold highlighting indicates which document in the series the reader is currently reviewing.

The Closure Plan is the primary document and is the first document in a series of five documents. The Closure Plan has been developed in accordance with New York Codes, Rules and Regulations Part 360. The Closure Plan provides project history and background information for the site, the regulatory status, the proposed design elements with supporting calculations, specifications and design drawings.

The Project Work Plan is the second document in the series. The Project Work Plan has been developed to outline the scope of work to be implemented and the general methodologies used to execute the scope of work. The plan presents Conti's work approach and sequence of activities for accomplishing the construction of landfill cover improvements. The Project Work Plan also includes, as appendices, the Environmental Protection and Soil Erosion Control Plan and the Traffic Control Plan. The Environmental Protection and Soil Erosion Control Plan outlines the procedures to be implemented to minimize impacts on the surrounding environment during construction. The Traffic Control Plan details the policies and procedures for proper control of vehicles during construction to protect workers and increase efficiency.

The Site Safety and Health Plan is the third document in the series. The Site Safety and Health Plan has been developed to outline the health and safety requirements and guidelines to be followed during construction related activities associated with the landfill closures.

The Contractor Quality Control Plan is the fourth document in the series. The Contractor Quality Control Plan has been developed to outline the policies and procedures to be followed to ensure that proper quality control measures are implemented to provide usable defendable data, ensure compliance with contract drawings and specifications, and to meet contractual requirements with USACE.

The Sampling and Analysis Plan is the fifth document in the series. The Sampling and Analysis Plan has been developed to outline the sampling and analysis procedures to be conducted at each landfill during closure activities.

TABLE OF CONTENTS

1.0 Introduction 1
2.0 Purpose, Scope and Applicability 1
3.0 Organization, Authority and Responsibility 1
3.1 Organizational Structure 1
3.2 Authority 3
3.3 Qualifications and Responsibilities 3
3.3.1 Contractor Quality Control System Manager 3
3.3.2 Project Manager 4
3.3.3 Project Superintendent 4
3.3.4 Chemical Quality Control Coordinator 5
3.3.5 Chemical QC Staff 5
4.0 Quality Control System 5
4.1 Definable Features of Work 5
4.2 Submittals 6
4.3 Project Quality Control Meetings 7
4.3.1 Coordination Meeting 7
4.3.2 On-Site Assurance Meetings 8
4.4 Three Phases of Control 8
4.4.1 Preparatory Phase 8
4.4.2 Initial Phase 9
4.4.3 Follow-up Phase 10
4.5 Tests 10
4.5.1 Identification of Testing Laboratories 11
4.5.2 Testing Plan Log 11
4.6 Punch-List, Prefinal and Final Inspections 11
4.6.1 Punch-List Inspection 11
4.6.2 Pre-Final Inspection 12
4.6.3 Final Inspection 12
4.7 Documentation 12
4.7.1 Project Correspondence and Document Control 12
4.7.2 Project QC Documentation 13
5.0 Non-Compliance Identification/Corrective Actions 14

Appendix A - Letters of Assignment and Resumes of QC Staff
Appendix B - Definable Features of Work Summary Table
Appendix C - Project Submittal Register
Appendix D - Preparatory, Initial and Follow-up Control Checklists
Appendix E - Laboratory Letters of Assignment and USACE Approval Documentation
Appendix F - Testing Plan Log and CQC Test Report List
Appendix G - Project QC Documentation Forms
Appendix H - Non-Compliance Identification/Corrective Action Report and Tracking Log

Abbreviations and Acronyms

BS..... Bachelor of Science
CO..... Contracting Officer
COR..... Contracting Officer Representative
CQC..... Contractor Quality Control
CQCC..... Chemical Quality Control Coordinator
CQCO..... Contractor Quality Control Officer
CQCSM..... Contractor Quality Control Systems Manager
DFOW..... Definable Features of Work
DQO..... Data Quality Objective
ENG..... Engineering
ER..... Engineering Regulation
HTRW..... Hazardous, Toxic and Radioactive Waste
NAS..... Network Analysis System
NICA..... Non-Compliance Identification/Corrective Action
POC..... Point of Contact
PRAC..... Pre-placed Remedial Action Contract
QA..... Quality Assurance
QC..... Quality Control
RMS..... Resident Management System
SAP..... Sampling and Analysis Plan
SSHO..... Site Safety and Health Officer
SSHP..... Site Safety and Health Plan
TPL..... Testing Plan and Log
USACE..... United States Army Corps of Engineers

1.0 Introduction

Conti Environmental, Inc. (Conti) has prepared this Contractor Quality Control Plan under US Army Corps of Engineers, Kansas City District (CENWK) contract # DACA41-01-D-0004 for the New York District of Army Corps of Engineers (NYD), the Former Griffiss Air Force Base and the Air Force Base Conversion Agency (AFBCA).

2.0 Purpose, Scope and Applicability

The purpose of this manual is to document the Contractor Quality Control (CQC) Plan that Conti will implement for accomplishing construction of landfill cover improvements at Landfill 1 at the former Griffiss Air Force Base in Rome, Oneida County, New York. The landfill cover improvements are to be implemented in accordance with the requirements contained in the Landfill 1 Closure Plan prepared to meet the requirements of 6 NYCRR Part 360. The CQC Plan is designed to ensure that all aspects of the project are performed in accordance with the plans and specifications provided by the USACE. Conti recognizes that no activities involving field demolition/construction will be permitted to begin until after acceptance of the CQC Plan by the USACE.

The scope of this plan includes all CQC aspects of the project. The specific aspects of chemical data quality control are presented in detail in the Sampling and Analysis Plan (SAP), a separate plan prepared for this project. However, as will be discussed later, chemical data quality control will be administered as part of the overall CQC Plan for the project.

This document is applicable to all activities and services performed and/or provided by Conti as the prime contractor and all subcontractors, suppliers, fabricators and purchasing agents associated with any and all work under Conti's control.

3.0 Organization, Authority and Responsibility

3.1 Organizational Structure

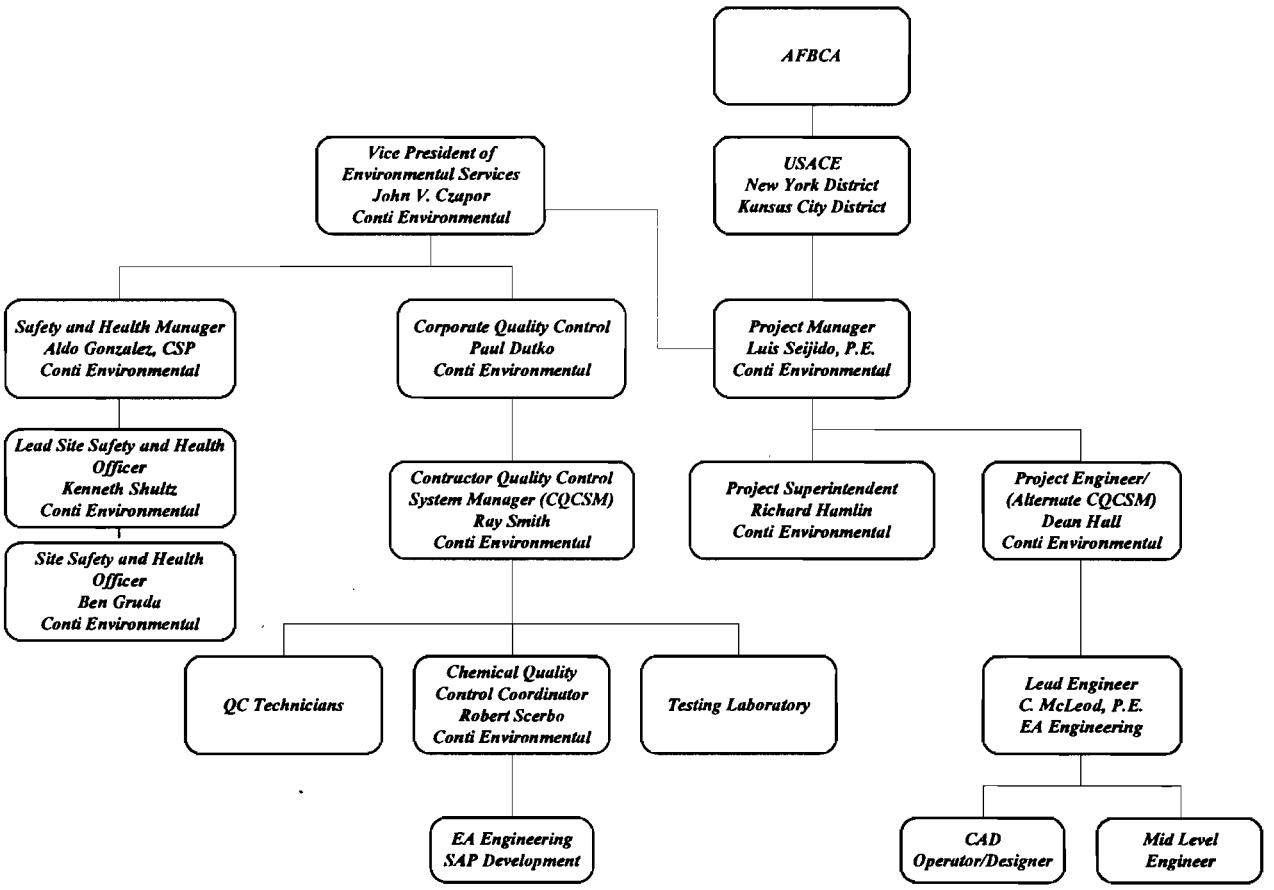
The QC organizational structure for this project is shown in the chart presented below and includes the Project Manager, Project Superintendent, Contractor Quality Control System Manager (CQCSM), Chemical Quality Control Coordinator (CQCC) and additional internal and/or subcontracted QC personnel assigned to the project.

The Project Manager, Project Superintendent and CQCSM have been assigned to the project by Mr. John Czapor, Vice-President of Environmental Services. Mr. Czapor has reviewed the qualifications for each position as described in the project specifications and verified that the personnel assigned satisfy all such requirements.

Mr. Lou Seijido, PE has been assigned as Project Manager for this contract. Mr. Seijido is responsible for the execution of the project in accordance with the requirements contained in the plans and specifications and reports directly to Mr. Czapor, who in his role as Senior Corporate Officer is ultimately responsible to the USACE for the quality of the project. Mr. Seijido also serves as the Point of Contact (POC) for the USACE Contract Officer Representative (COR) and represents Conti in all matters related to the project.

Mr. Richard Hamlin has been assigned to serve as Project Superintendent for the project and reports to Mr. Seijido. Mr. Hamlin is responsible for ensuring that all field activities performed by Conti and/or subcontractors under contract with Conti are conducted in conformance with project plans and specifications. Mr. Hamlin is also responsible for scheduling and coordinating all field efforts conducted by Conti and its subcontractors.

ORGANIZATION CHART
The Former Griffiss Air Force Base
Landfill 1



Mr. Ray Smith has been assigned to serve as CQCSM for the project and is responsible for the implementation of the CQC Plan. Mr. Smith reports to Mr. Czapor on all project QC matters that may require involvement at a corporate level. Mr. Czapor is the Executive Sponsor for the project. Mr. Smith will communicate with both the Project Manager and Project Superintendent on a daily basis regarding all QC aspects of the project and will be responsible for scheduling, coordinating and implementing all aspects of the CQC Plan. In addition, Mr. Smith will be Conti's POC for scheduling and coordinating chemical data quality control activities being implemented by Conti in the field to ensure that this element of the CQC Plan is properly executed.

Mr. Robert Scerbo, a Conti employee, has been designated as the Chemical Quality Control Coordinator (CQCC). Mr. Scerbo has conducted chemical investigations at many Hazardous, Toxic and Radioactive Waste (HTRW) sites in NY, NJ, Puerto Rico, and the Virgin Islands and served as Chemical Data Control Coordinator for numerous investigations. He is qualified to ensure proper sample management, QC of sampling, chain-of-custody, and data management and evaluation. Mr. Scerbo has served as CQCC on large landfill projects and has been responsible for preparation and management of Chemical Data Quality Management Plans and Sampling and Analysis Plans for numerous projects consistent with USACE guidance documents. Mr. Scerbo will be responsible for all aspects of chemical data quality control and will report to and coordinate with the CQCSM on all such matters.

3.2 Authority

Each individual involved in the QC organizational structure has the authority necessary to execute their responsibilities as documented in their respective letters of assignment contained in Appendix A. The Project Manager, Project Superintendent and CQCSM have full authority to secure the personnel, equipment and materials necessary to implement the project consistent with contractual requirements. Each has the authority to stop work not in compliance with quality standards contained within the project plans and specifications. The CQCSM has the authority to implement all aspects of the CQC Plan. The CQCC has the authority to conduct all aspects of chemical data quality control.

3.3 Qualifications and Responsibilities

The following personnel are directly responsible for various aspects of the quality achieved during execution of this contract. Consistent with the specifications, letters of assignment and resumes are included in Appendix A. These documents verify the individual's formal assignment to the project, their areas of responsibility and authority and their qualifications, in resume format, to assume the assignment. For individuals subordinate to the Contractor Quality Control Officer (CQCO) involved in aspects of the project, such as the Project Chemist and Environmental Sampler, their qualifications and responsibilities will be provided in the SAP.

3.3.1 Contractor Quality Control System Manager

Specific to the requirements of this project, the CQCSM shall be:

- A graduate engineer or construction manager with a minimum of 5 years experience on construction similar to this contract;
- On the site at all times during construction; and
- Employed by the prime contractor.

In addition, the CQCSM shall have completed the course entitled "Construction Quality Management for Contractors". An alternate for the CQCSM shall also be identified in the plan to serve in the event of the CQCSM's absence. The requirements for the alternate shall be the same as for the designated CQCSM.

Conti has selected Mr. Ray Smith to serve as CQCSM for this project and Mr. Dean Hall to serve as the alternate. Both satisfy all of the requirements except for the completion of the "Construction Quality Management for Contractors" course by Mr. Smith. Mr. Hall has completed this course and a certificate so noting is included in Appendix A. Mr. Smith is scheduled to attend the next available course on October 29/30, 2002. The CQCSM is responsible for the development, execution and overall management of the CQC Plan for the project. The CQCSM has the authority to act in all QC matters for Conti as well as full stop work authority related to any work being performed that is not in compliance with project QC requirements. Such authority is provided in the assignment letter contained in Appendix A. Duties for which the CQCSM is responsible include but are not limited to:

- Review and approval of all submittals prior to transmittal to the USACE;
- Providing the necessary initial information, subsequent data updates and transmit the current file via a diskette with each Pay Request (as a minimum frequency);
- Execution of the three phases of control (Preparatory, Initial and Follow-up) for all Defined Features of Work (DFOWs)
- Assignment of inspection and testing personnel to the project after verifying and documenting that their qualifications are consistent with project requirements;
- Scheduling and coordination of the activities of all QC personnel assigned to the project;

- Coordination of all QC activities with the Project Manager, Project Superintendent and Site Safety and Health Officer (SSHO) to ensure that QC activities are performed on a safe and timely basis and do not adversely impact the project schedule;
- Establishing and maintaining a document control system for all testing and inspection records and associated documentation and as-built drawings for the project;
- Development of QC related forms and reports required for the project
- Establishing and maintaining a test equipment calibration program for all QC equipment used on the project;
- Verification that onsite and/or subcontracted laboratories are in compliance with CQC Plan requirements;
- Supervision of QC testing as required by the contract;
- Inspection of materials/equipment received onsite to ensure contract compliance;
- Performance of punch out, pre-final and final inspections
- Implementation of changes to correct deficiencies discovered as a result of inspections
- Preparation of daily QC reports documenting the status and activities of the project

The CQCSM is also responsible for coordination and scheduling with the CQCC to ensure that all aspects of chemical data QC are performed in accordance with contract requirements. The CQCC will report directly to the CQCSM.

The CQCSM will be responsible for ensuring the QC system and process provides the information/data required to support preparation of the Engineer's Certification Report as defined in NYCRR Part 360. The Certifying Engineer will be responsible for preparation of the Closure Certification Report. The Certifying Engineer will report to the QCSM who will manage the QC process including the preparation of Closure Reports.

3.3.2 Project Manager

The Project Manager is trained in corporate administrative and safety and health procedures, technically qualified and possesses the necessary level of experience to manage the project in a manner that satisfies all contractual obligations related to safety, quality, cost and schedule. Conti has assigned Mr. Lou Seijido, P.E. to serve as Project Manager for this contract.

The duties for which the Project Manager is responsible include but are not limited to:

- Acting as the Point of Contact (POC) for Conti with the USACE COR;
- Directing and managing of all aspects of the project in compliance with contractual and technical requirements;
- Representing Conti in all dealings with all organizations involved in the project;
- Procuring and managing all subcontractor services retained by Conti;
- Approving all invoices submitted to the USACE;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Coordinating and communicating with the Project Superintendent, SSHO and CQCSM in the performance of all work related to the project.

3.3.3 Project Superintendent

The Project Superintendent is trained in corporate safety and health and administrative procedures, technically qualified and possesses the necessary level of experience to implement all field work in a manner that satisfies all contractual obligations related to safety, quality, cost and schedule. Conti has assigned Mr. Richard Hamlin to serve as Project Superintendent for this project.

The Project Superintendent is responsible for the quality of all work performed in the field by all labor forces, including both Conti's and those of subcontractors working on the project and under Conti's control. The Project Superintendent reports directly to the Project Manager. The duties for which the Project Superintendent is responsible include but are not limited to:

- Directing all field work in compliance with all project requirements including subcontractor work efforts;
- Scheduling and coordinating all field work performed by Conti and its subcontractors;
- Ensuring that all field work is performed in accordance with the CQC Plan and the Site Safety and Health Plan (SSHP) and meets or exceeds all quality standards.

3.3.4 Chemical Quality Control Coordinator

Mr. Robert Scerbo, a Conti employee, has been designated as the Chemical Quality Control Coordinator (CQCC). The Chemical Quality Control Coordinator (CQCC) for this project possesses the following minimum qualifications:

- 4 years of experience related to investigations, studies, design and remedial actions at HTRW sites; and
- 2 field seasons (or one continuous calendar year) experience in calibration and operation of various field monitoring devices as well as standard analytical chemistry methods common for analyzing soil, water, air and other materials for chemical contaminant assessment, including hazardous waste manifesting.

The CQCC is responsible for ensuring that all chemical-related objectives including responsibilities for Data Quality Objectives (DQO) definitions, sampling and analysis, project requirements for data documentation and validation, and final project reports are attained. The CQCC need not be present onsite during routine sampling, but shall be available for consultation with Government personnel and the CQCSM. The CQCC will report to the CQCSM on all chemical data QC matters for the project. The CQCC is also responsible for management and coordination of the chemical QC staff including subordinate personnel such as the Project Chemist and Environmental Sampler. When the CQCC is not present on-site, scheduling and coordination will be provided by the CQCSM.

3.3.5 Chemical QC Staff

Chemical QC staff qualifications and responsibilities for positions such as the Project Chemist and Environmental Sampler are described in detail in the SAP for this project. Related to the CQC Plan, all chemical QC staff will report to the CQCC. If the CQCC is not present on-site, the staff will coordinate scheduling and testing efforts with the CQCSM.

4.0 Quality Control System

The Quality Control System that will be utilized to ensure the quality of all work performed by Conti and its subcontractors, suppliers, and fabricators involves the following basic elements; Definable Features of Work, Submittals, Project Quality Control Meetings, Three Phases of Control, Tests, Inspections, Documentation and Notification of Noncompliance. Each element is described below.

4.1 Definable Features of Work

All tasks defined in the project specifications and drawings that are separate and distinct from other tasks, have separate control requirements, may be identified by different trades or disciplines or may be work by the same trade or discipline performed in a different environment are identified as Definable Features of Work (DFOWs). All DFOWs are controlled during execution using the three

phases of control discussed below and will undergo a completion inspection upon conclusion of the work associated with the DFOW. A listing of the DFOWs identified for this project is presented in a summary table contained in Appendix B. The CQCSM tracks the status of QC activities related to all DFOWs using this summary table. A copy of the table is provided as part of the daily QC report prepared by the CQCSM.

The CQCSM is responsible for the execution of the Preparatory, Initial, and Follow-up control activities, any and all testing required to demonstrate the adequacy of the DFOW, inspections related to the DFOWs, identification and correction of any noncompliance with contract requirements for the DFOW and documentation of all QC activities related to the DFOW. Additional qualified QC staff may be used to assist the CQCSM in the various QC activities to accommodate variations in workload and/or specific areas of technical expertise, however the CQCSM is ultimately responsible for ensuring the QC of all DFOWs.

4.2 Submittals

During the startup phase of the project, all requisite submittals contained within the contract drawings and specifications are identified and made using the procedures and format presented in the most current version of USACE ER 415-10, Construction Contractor Submittal Procedures and ENG Form 4288. ENG Form 4025 will be used for the transmitting the submittals. A copy of the submittal register prepared by the USACE for this project is presented in Appendix C. Conti recognizes that this register may not be all-inclusive and additional submittals may be required. Upon receipt of the diskette containing the computerized version of the project submittal register, the CQCSM will complete columns "a" and "s through u" and submit the forms in both hard copy and electronic file to the Contracting Officer Representative (COR) for approval within 15 calendar days after Notice to Proceed.

Tracking of all submittals is performed using both the Network Analysis System (NAS) established for the project schedule and an electronic version of the submittal register (ENG Form 4288). Both are modified as necessary to reflect the current status of all submittals.

The Submittal Register will be used as a scheduling document for submittals and will be used to control submittals throughout the life of the project. According to the project specifications, a minimum of 30 calendar days shall be allowed for review and approval of all submittals by USACE. Such timing will be included in the timetable for all submittals contained in the NAS to ensure that submissions, reviews, and approvals are in compliance with schedule and sequencing requirements. Prior to submission to the USACE, the CQCSM is responsible for certifying that all submittals are complete and in compliance with contract documents and drawings.

The CQCSM will also stamp, sign and date the submittals as required. The stamp is similar to the following:

Conti Environmental, Inc.

_____Approved

_____Approved with corrections as noted on submittal data and/or attached sheet(s)

Signature:_____

Title:_____

Date:_____

Submittals for interrelated items will be submitted concurrently. Certifications and/or warranties will be submitted and accompany the appropriate items for which they apply.

This submittal process includes all submittals prepared by Conti for its own work, as well as those required from its subcontractors, fabricators and suppliers. In addition, the Project Manager, Project Superintendent and the CQCSM will meet with the USACE at mutually agreed upon intervals to review the existing version of the submittal register based upon the required work items completed and those still to be performed. Following each meeting, a revised version of the submittal register will be issued to the USACE. At a minimum, a diskette containing the current version of the submittal register will accompany the monthly payment request submitted to the Government.

4.3 Project Quality Control Meetings

Project QC meetings will be conducted through the course of the project to first establish the means and methods that will be used to monitor QC related to the project and subsequently to verify that the QC program is being properly implemented.

4.3.1 Coordination Meeting

Following the Pre-Construction Conference and submittal of both the CQC Plan and SAP, but prior to the start of construction and acceptance by the Government of the CQC Plan and the SAP, a Coordination Meeting will be held. This meeting will be scheduled, convened and conducted by the Government. The purpose of the meeting is:

1) To achieve a mutual understanding of the QA and QC roles to be performed by the USACE and Conti, respectively related to both CQC and chemical data quality;
2) To review and discuss all elements of the CQC Plan and the SAP; and
3) To establish the professional and cooperative working relationships needed to achieve the mutual goal of constructing a quality product that conforms to contract requirements.

Attendance will include at a minimum, the CO or COR, CQCC and the CQCSM. However, Conti recognizes the benefits of also having the Project Manager, Project Superintendent and SSHO present as well as selected members of the CQC and chemical data QC staffs in attendance.

During the meeting a mutual understanding of all quality control system details shall be developed, including the forms used to record CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Conti's project management and QC staff with USACE QA personnel. Safety and health issues related to QC activities will also be identified and discussed with the SSHO.

The meeting will also address management of the chemical data QC program. This will discussions related to a list of DFOWs that involve chemical and radiological measurements, project DQOs, project submittals, chemical data documentation, chemical data assessment, required sampling and analysis protocols, and minimum reporting requirements, all of which will mutually agreed upon by the Government and Conti.

Minutes of the meeting will be prepared by Conti and signed by the CQCSM and the CO or COR. The minutes will become part of the contract file. Either the USACE or Conti may call subsequent meetings to reconfirm mutual understandings or address deficiencies in the CQC and/or chemical data QC systems and/or procedures.

4.3.2 On-Site Assurance Meetings

Conti will conduct weekly or bi-weekly QC meetings chaired by the CQCSM and attended by designated members of Conti's management, field, and QC staff, and if warranted, representatives from its subcontractors, vendors and/or fabricators. USACE QA personnel will also be invited to participate. The meeting serves as a means to coordinate quality-related activities and ensure that all requirements and milestones are being achieved. During the meetings the following items will be discussed along with other items as necessary based on the conduct of the project and items requiring resolution:

1) Safety and health issues related to QC activities;
2) Work accomplished and upcoming;
3) Information needs;
4) Last meeting action items;
5) Status of any deficiency notices;
6) Physical and analytical testing status and results; and
7) Project schedule and inspection schedules related to the Three Phases of Control discussed below.

Meeting minutes will be developed by the CQCSM and will be submitted to the USACE for information purposes.

QC is also an agenda item for the weekly on-site project meeting, during which time status of previous action items is presented and discussed, new issues are presented, and upcoming activities are identified and coordinated.

4.4 Three Phases of Control

The CQCSM will employ a minimum of three phases of control to complete each DFOW in accordance with project requirements. The three primary phases are Preparatory, Initial, and Follow-up are discussed in detail in the following subsections.

Project-specific checklists are used for each control phase of each DFOW. These checklists are submitted as part of the project CQC plan and, upon USACE acceptance, will assist in assuring that all relevant considerations for the control of work associated with each DFOW are systematically addressed. Checklists to be used in controlling the quality of the DFOWs addressed in this CQC Plan are presented in Appendix D.

The CQCSM will notify the USACE at least 2 working days prior to the initiation of Preparatory and Initial Phase control activities, and will advise the USACE's QA personnel daily as to the anticipated schedule of Follow-up activities. The inspection procedures that will be used in executing the three phases of control will be in accordance with contract requirements if specified.

4.4.1 Preparatory Phase

The Preparatory Phase of control will be performed prior to beginning work on each DFOW, after all required plans/documents/materials are approved/accepted and after copies are at the work site. All preparatory phase activities will be included in the NAS that is used to schedule the project, ensuring that adequate lead-time is provided for startup of all DFOWs. The USACE will be notified at least 2 working days in advance of beginning the preparatory control phase of each DFOW. This phase shall include a meeting conducted by the CQCSM and attended by the Site Superintendent, other CQC personnel participating in the QC activities related to the DFOW being initiated, the foreman responsible for the work activities on the DFOW and the SSHO. The purpose of this meeting is to

assure an understanding of the quality and technical requirements, safety and environmental precautions, materials and equipment, testing requirements, acceptance criteria, workmanship, and quality certification documentation needed. Interfaces with USACE representatives will be identified, including third party inspection or regulatory personnel.

The results of the preparatory phase actions will be documented by separate minutes prepared by the CQCSM and attached to the daily CQC report. The Site Superintendent and CQCSM shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

The results of the Preparatory Inspection will be attached to the daily QC report. At a minimum, the Preparatory Phase Inspection shall include:

- A review of each paragraph of the applicable specifications;
- A review of the Activity Hazard Analysis to assure safety requirements are met;
- A review of the SSHP related to control activities to be performed;
- A review of the applicable drawings;
- A check to assure that all materials and/or equipment have been tested, submitted and approved;
- A check to assure that provisions have been made to provide required inspection and testing;
- Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract;
- A physical examination of required materials, equipment, and sample work to assure that they are available, conform to approved shop drawings or submitted data and are properly stored;
- Discussion of procedures for controlling the quality of the work including handling of any repetitive deficiencies;
- Documentation of construction tolerances and workmanship standards for that feature of work;
- A check to ensure that the portion of the plan for the work to be performed has accepted by the CO; and
- A review of applicable regulatory requirements.

4.4.2 Initial Phase

The Initial Phase of control will be conducted at the beginning of a DFOW and after a representative sample of the work has been completed. The CQCSM will meet with the staff directly involved in the performance of the work and with USACE QA personnel and will verify conformance of the sample work with the requirements of the construction documents by reviewing the workmanship, inspection and test results and the adequacy of the safety and environmental precautions taken. Inspection results shall be attached to the daily QC report. Exact location of the initial phase inspection shall be recorded for future reference and comparison with follow-up phases.

As a minimum the initial phase inspection shall include:

- A review of preparatory phase meeting minutes;
- A check of preliminary work to ensure that it is in full compliance with contract requirements;
- Verification of the adequacy of controls to ensure full contract compliance including verification of required control inspection and testing plans and results;
- Establishment of level of workmanship and verification that it meets minimum acceptable workmanship standards, including a comparison to sample work products if appropriate;
- Resolution of all differences identified during the initial control phase;
- A safety inspection to include compliance with and upgrading of the safety and health plan and activity hazard analysis as necessary;
- A review of the activity hazard analysis with each worker;

- The Initial Phase Inspection should be repeated for each new work crew to work onsite or at any time acceptable specified quality standards are not being met.

The USACE may determine that additional preparatory and initial phase controls must be conducted on the same DFOW. Reasons for repeating preparatory and initial control phases may include:

- The quality of ongoing work is unacceptable;
- There are changes in the acceptable CQC staff, onsite production supervision or work crew;
- Work on a DFOW is resumed after a substantial period of inactivity;
- Other problems develop.

4.4.3 Follow-up Phase

The CQCSM will use the QC staff to monitor each DFOW on a daily basis to verify continuing conformance to the requirements established in the preparatory initial control phases. Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of a particular DFOW. The checks shall be made a matter of record in the CQC documentation. USACE QA personnel will be advised at the conclusion of each workday as to the schedules of proposed follow-up activities that will be performed during the next workday.

Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional DFOWs that may be affected by the deficient work. The CQCSM is responsible to verify that any and all deficiencies have been corrected before the start of additional features of work in areas of prior non-conformity. Neither Conti, nor its subcontractors, suppliers or fabricators, will build upon or conceal non-conforming work.

4.5 Tests

All tests and inspections will be performed in accordance with the procedures contained within the project contract documents. For this project Conti will procure the services of USACE-and New York State-approved testing laboratories. The CQCSM will be responsible for the tracking, verification and documentation of all test and inspection activities and data. Conti will perform specified or required tests to verify that control measures are adequate to provide a product that conforms to contract requirements. Upon request, Conti will furnish to the USACE duplicate samples of test specimens for possible testing by the USACE. Testing includes operation and/or acceptance tests when specified.

Conti will perform the following activities and record and provide the following data:

- Verify that testing procedures comply with contract documents;
- Verify that facilities and testing equipment are available and comply with testing standards;
- Check test instrument calibration data against certified standards;
- Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared and personnel are trained in their appropriate usage;
- Results of all tests taken, both passing and failing tests, will be recorded on the CQC report for the date taken. Specification paragraph reference, location where the tests were taken, and the sequential control number identifying the test shall be given. If approved by the CO, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of the tests performed by an offsite or commercial test facility will be provided directly to the CO. Conti recognizes that failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

4.5.1 Identification of Testing Laboratories

For this project Conti has retained the services of USACE-and New York State approved testing laboratories [to be procured after approval of Work Plans] to perform the Atterberg limit, grain size, moisture content and density characteristics testing required for the borrow source assessment. The testing laboratory will also perform density control testing for placement of the cover soil. Letters of assignment and USACE laboratory approval are presented in Appendix E. All information related to the analytical laboratories that will be used in the acquisition of chemical data for this project is presented in the SAP.

Conti's CQCSM will ensure performance of the required density testing on the cover soil placement.

4.5.2 Testing Plan Log

All physical testing required for the project is summarized in the Testing Plan Log (TPL) presented in Appendix F. A similar TPL for all analytical/chemical testing is presented in the SAP.

Physical testing for the project involves borrow source assessment (common borrow, bedding layer, barrier protection layer and topsoil), control of density during cover soil placement, geosynthetic material testing, and testing of concrete and mechanical/electrical systems during construction of the treatment building and treatment system. The TPL will be used by the CQCSM to identify and track testing activities throughout the course of the project thereby ensuring that all testing is performed in accordance with project requirements. The TPL will be reviewed and updated to be consistent with site activities and to reflect applicable revisions of the CQC Plan.

A CQC Test Report List is also presented in Appendix F. This provides a listing of all of the CQC tests and procedures that will be employed for the project. Conti will maintain a copy of the most current version of each test procedure for use during execution of the tests.

As with the physical testing, the TPL for chemical testing will be reviewed by the CQCSM and CQCC during the Preparatory Control phase of each DFOW to identify what analytical sampling and/or testing is required. The CQCC will track and report the status of QC activities related to analytical sampling and analysis to the CQCSM such that analytical testing efforts are being monitored by the CQCSM.

4.6 Punch-List, Prefinal and Final Inspections

In addition to the three phases of control that will be employed to verify that all DFOWs are performed in accordance with contract requirements, a series of three individual inspections, as required in the project specifications, will be performed at prescribed intervals to ensure that work is continuing in an acceptable manner for the entire project and/or specific elements thereof. These inspections will be performed by the various Conti and USACE personnel in accordance with the requirements of the inspection. The three inspections are identified as the Punch-list Inspection, Pre-final Inspection and Final Acceptance Inspection and are described in detail in the following sections. The results of all inspections will be documented by the CQCSM, included as part of the contract file and be provided to the CO or COR.

4.6.1 Punch-List Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Special Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQCSM will conduct an inspection of the work and develop a

punch list of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the QC documentation, as required in the section entitled "Documentation" presented below, and shall include an estimated date by which the deficiencies will be corrected. The CQCSM will make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the CQCSM will notify the USACE that the project or specific work element is ready for USACE Pre-Final inspection.

4.6.2 Pre-Final Inspection

The USACE will perform the Pre-Final Inspection to verify that the facility, project or specific work element is complete and in the case of a structure, is ready to be occupied. Specific to this contract, the Pre-Final Inspection will be taken to mean completion of the project or specific element of work. The CQCSM will ensure that all items on this list have been corrected before notifying the USACE so that a Final Inspection with the USACE can be scheduled. Any items noted on the Pre-Final Inspection will be corrected in a timely manner. These inspections and any deficiency corrections required as a result of the inspection will be accomplished within the time frame slated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

4.6.3 Final Inspection

The CQCSM and the Site Superintendent or other primary management person (Project Manager) and the COR will be in attendance at the Final Inspection. The final acceptance inspection will be formally scheduled by the CO based upon the results of the Pre-Final inspection. Notice will be given to the CO at least 14 days prior to the final acceptance inspection and will include Conti's assurance that all specific items previously identified to Conti as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection.

4.7 Documentation

All documentation associated with the project will be distributed to appropriate personnel with the original versions maintained within fireproof file cabinets. Computer generated documents will be copied to a separate electronic location within Conti's Wide-Area Network exclusive of the project site. Procedures involving project correspondence and document control and QC documentation will be managed in accordance with the procedures indicated below.

4.7.1 Project Correspondence and Document Control

All contract documents and correspondence will be channeled through the Project Manager. The Project Manager will be responsible for assuring that the current revision of all contract design drawings and shop drawings are provided to the CQCSM who will in turn distribute them to all project management personnel including the Site Superintendent and SSHO as well as construction crews, subcontractors and vendors as required. Subcontractors and vendors will be responsible for distribution of current revision documents to their crews and production facilities. The Project Manager will maintain a log of all incoming and outgoing correspondence for the project and will assign a number to all incoming and outgoing correspondence and log the entry into a bound logbook or computer file. Incoming documents will be stamped "Received" with the date and time recorded.
A master set of design and shop drawings will be maintained at the site. Upon receipt or changes in either the project specifications and/or drawings the current revision specification page/drawing will be placed over the previous revision with the previous revision stamped "Superseded By Revision No." and dated by the CQCSM. QC Inspectors will be required to check the master set and obtain current revision drawings prior to performing any inspections on work covered by the drawing. The project

management team will review current revision design or shop drawings upon receipt to determine changes that may require amending subcontracts and/or purchase orders.

Project correspondence generated will be maintained in hard copy and electronic version with copies of all such documentation being provided to the Project Manager and other project management staff as appropriate.

4.7.2 Project QC Documentation

The CQCSM shall maintain current records of QC operations, activities and tests performed including work of suppliers and subcontractors. These records shall include, but are not limited to all inspections, conformance tests, delivery documents, Certificates of Compliance and Certified Mill tests. The records will be identified with, and referenced to, the DFOW or NAS element they represent. The records will be kept on site in a fireproof file cabinet and will be available to the USACE at all times. Upon completion of the project, the original documents will be turned over to the USACE, after reproductions have been made for the contract file.

The CQCSM shall prepare and maintain daily quality control reports that include records providing factual evidence that required QC activities and/or tests have been performed. The daily QC report, an example of which is contained in Appendix G shall include the work of subcontractors and suppliers as well as at a minimum the following information:

- Contractor/subcontractor and their area of responsibility.
- Operating plant/equipment with hours worked, idle or down for repair.
- Work performed each day, giving location, description, and by whom. Each phase of work performed will be identified by its activity number.
- Test and /or control activities performed with results and references to specifications/drawing requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements. Also, quantities of materials removed from the site and its ultimate destination. Quantity records will include daily and cumulative totals for each material.
- Submittals reviewed, with contract reference, by whom and action taken.
- Off-site surveillance activities including actions taken.
- Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- Instructions given/received and conflicts in plans and/or specifications.
- Contractor's verification statement.
- A description of trades working on the project.
- The number of personnel working.
- Weather conditions encountered.
- Any delays encountered and the reason(s) for the delay.

The report shall also include both conforming and deficient features as well as a statement verifying that equipment and materials incorporated in the work and the workmanship comply with contract requirements. The original and one copy of these records, in report form, will be furnished to the USACE within 24 hours after the date(s) covered by the report, except that reports will not be submitted for days on which no work is performed. However, as a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendars days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQCSM. The report from the CQCSM shall include copies of test reports and copies of reports prepared by all subordinate QC personnel.

Documentation prepared will be printed and hard copies maintained in the project contract filing system. Depending upon the reporting requirements established by the COR, copies of test reports and inspection reports prepared by subordinate QC staff will be copied and transmitted daily. Additional QC forms typically required for proper documentation of work activities are included in Appendix G and include such items as the Permanent Materials Report and Trip Report.

5.0 Non-Compliance Identification/Corrective Actions

The CQCSM is ultimately responsible for the identification, correction, and documentation of any deficiencies in the work performed by Conti, its subcontractors, suppliers and/or fabricators. However, subordinate QC staff, along with field supervisory personnel, have individual responsibilities in this regard as well. During implementation of the three-phased control process, any individual who identifies a deficiency is responsible for formally conveying its existence to the CQCSM via a Non-compliance Identification / Corrective Action (NICA) Report form, an example of which is presented in Appendix H. The report is structured to collect critical information relating to the deficiency, such as the DFOW involved as well as when, where, and by whom the deficiency was identified. This report is then immediately given to the CQCSM who: 1) enters it into a master deficiency tracking log (presented in Appendix H) and uniquely identifies it by issuing the next consecutive number in the log to the document, 2) notes the existence of the deficiency in the DFOW tracking log, 3) advises the USACE's QA personnel of the deficiency, and 4) includes a copy of the NICA report and NICA tracking log in the daily QC report.

The CQCSM then notifies and discusses the existence of the deficiency with the appropriate work force individual(s) responsible for its correction. A corrective plan of action is developed and implemented following USACE approval, if needed. All of these activities are fully documented in the original NICA report form and noted in the deficiency tracking log used to identify the current state of resolution of the deficiency. NICA Reports for outstanding deficiencies are issued daily during the period from identification through resolution, so that the USACE is kept abreast of the state of corrective action for each deficiency. In addition, the completed NICA report serves as the means to document all aspects of the deficiency. Copies of all such documentation is transmitted to the USACE and maintained in the project QC document filing system by the CQCSM.

The CQCSM indicates the resolution of each deficiency in the master deficiency tracking log as well as in the DFOW tracking log. This redundancy provides a means for readily identifying the existence and resolution of any deficiencies related to a particular DFOW. By reviewing the DFOW tracking log prior to conducting a Completion Inspection, the CQCSM is able to verify that any outstanding deficiencies have be corrected and that the DFOW is ready for inspection. The deficiency resolution and monitoring process is also used to respond to Quality Assurance comments from the client and provides an effective means of acknowledging, tracking, resolving, and documenting any such issues should they arise.

ENVIRONMENTAL

October 25, 2002

Attention: Mr. Luis Seijido

Reference: Assignment as Project Manager for Landfill 1 Cover Improvements Project at Former Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Project Manager for the above referenced project. In this capacity you are responsible for and have the authority necessary to ensure that the project is executed in accordance with the requirements contained in the plans and specifications. Specific responsibilities include, but are not limited to:

- Acting as the Point of Contact (POC) for Conti with the USACE COR;
- Directing and managing of all aspects of the project in compliance with contractual and technical requirements;
- Representing Conti in all dealings with all organizations involved in the project;
- Procuring and managing all subcontractor services retained by Conti;
- Approving all invoices submitted to the USACE;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Coordinating and communicating with the Project Superintendent, SSHO and CQCSM in the performance of all work related to the project.

Very truly yours

John Czapor
Vice President

CORPORATE HEADQUARTERS:
Conti Environmental, Inc. 3001 South Clinton Avenue South Plainfield NJ 07080 Telephone (908) 561-9025 FAX (908) 561-0450

AN EQUAL OPPORTUNITY EMPLOYER

Project Manager

Luis Seijido, P.E. (Conti)

Highlights of Relevant Experience
➢ 23 years experience and professional registration in seven states with engineering responsibilities of more than 10 years developing designs in accordance with USACE guidance documents
➢ 15 years program and project management experience on over 200 projects including over 50 HTRW installations involving activities from investigations and studies, designs, remediation, short-term O&M and disposal
➢ Managed more than $150 million in HTRW and environmental work
➢ Direct Landfill remediation and Design-Build experience
➢ 15 years cost reimbursable HTRW project/program and contract management experience
➢ Experienced in executing remediation throughout the NAD geography
➢ Worked with regulators and public agencies to accomplish RODs and regulatory decision-making documents.

a. Education

- Manhattan College, BS, Civil Engineering, 1978
- Registered Professional Engineer, Civil; No. EN33095-C, MA; No. 6521, ME; No. 5624, RI; No. 7869, NH; No. 16672, CT; No. 18-0005852, VT; No. 21893, LA
- OSHA 29CFR 1910.120, 40-hour, 1987; Annual Refresher, 2001

b. Experience

1) 2/01 to Present: Conti Environmental, Inc., Concord, MA, Project Manager; Director of Regional Operations. Responsible for overall management of contracts including cost, schedule, and technical quality for HTRW remediation projects. Responsible for overseeing coordinating and managing all parties involved in project performance including Conti personnel and subcontractors, and providing technical, administrative and management interfaces with clients to ensure their satisfaction with work performance. In charge of conducting project status meetings to confirm successful project execution. Also, as Corporate Director of Engineering Services, ensures all engineering/design work is performed in accordance with contract requirements. Responsible for the entire engineering process ensuring risk management and technical administrative compliance with laws and regulations.Relevant Project Experience includes:

Former Griffiss AFB Landfill Cover Improvements, Rome NY- Engineering Manager. Currently providing technical, engineering, quality control and management support for development of project work plans to accomplish closure of five landfills in accordance with NYSDEC regulations.

2) 5/78 – 1/01, Foster Wheeler Environmental Corp., Boston, MA, Program Manager. Managed cost, schedule, and technical quality for HTRW projects involving the full range of HTRW activities from investigation, studies, remedial design, removal actions, remedial action, short-term O&M and including ordnance and explosives. Direct program management experience on over 200 projects including over 50 HTRW sites throughout the NAD including extensive subcontract management and contract administration. Relevant project experience includes:

Program Manager, USEPA Region I ARCS Remediation Contract, Various Installations throughout USACE New England District including Superfund Sites. Served as single point of contact for over four years on this ten-year, $55 million CPAF ID/IQ type environmental remediation contract providing the full range of HTRW activities from site investigations through RD and RA at over 25 installations. Directly responsible for overall management of the contract including cost, schedule, and technical quality. Under his leadership and management, performance of work was consistently evaluated as "exceeds expectations" by USEPA. Ensured projects were performed in accordance with federal, state, and local regulations, including CERCLA, RCRA, TSCA, CAA, SDWA and CWA. TOs included Old Springfield Landfill (RI/FS/RD),Nyanza II (RI/FS), Pinette's Salvage (RD/RA), Wells G&H/Aberjona River Site (RI, RD/RA), RCRA RFIs and Corrective Actions. A Feasibility Study for the 28,000-acre, PCB-contaminated New Bedford Harbor site was completed under this contract and recommended remediation of the PCB-contaminated harbor sediments.

Chief Project Manager, USACE, New England District, Total Environmental Restoration Contract (TERC), Silresim Superfund Site, Lowell, MA. Responsible for contract performance including cost, schedule and technical quality on this $15 million cost reimbursable remediation project completing work according to the requirements of the FAR and DFARS. Managed multiple cost reimbursable remediation TOs to install and

operate a groundwater extraction and treatment system; design, test and install soil vapor extraction and treatment technology; and improve an existing clay cap. Directed evaluation studies of innovative SVE treatment technologies including multi-phase high vacuum and soil heating. After selection of SVE technology, implemented SVE pilot study utilizing a highly innovative mobile treatment unit and various extraction technologies. Responsible for simultaneous execution of TOs involving 30 direct hire, 25 specialty subcontractors, and 30 craft labor. Ensured Quality Control and compliance of all work with contract laws, regulations, and procedures. Partnered with USACE New England District PM and COR to develop and implement plans for a fast-track project delivery approach. Overcame numerous coordination issues with the City of Lowell over site constraints to successfully complete the project on schedule. Effectively managed contract change through partnering with USACE to maintain budget and schedule. Provided alternative approaches and material changes saving USACE approximately $2 million. Received National Safety Council Award for operating more than 200,000 employee hours without occupational injury or illness. Developed and implemented subcontracting plans to provide significant levels of meaningful SB/SDB participation on the TERC.

Operations Manager/Principal, USACE New England District, Total Environmental Restoration Contract (TERC), various Installations throughout NAD. Responsible for the overall technical quality and management of a $50 million per year cost reimbursable engineering and environmental operations effort supporting the TERC ($260 million total contract value). Developed/accomplished staffing, quality control, engineering, design, and issuance (PE stamping) of RD and Permitting documents. Support activities were accomplished in all phases of work from site investigation, through engineering design and remediation. At the Stratford, Connecticut sites, work included time-critical removal of PCB, lead, and asbestos contaminated soil at 37 residential properties; decontamination and demolition of a 17 acre industrial facility; removal of non-aqueous phase liquid from groundwater; and design and construction of a 34 acre RCRA-composite cap. At the Norwood PCB site, TOs included the installation and operation of a groundwater extraction and treatment system and decontamination of nearly 100 pieces of PCB contaminated industrial equipment and machinery.

Operations Manager, US Navy, NorthDiv Remedial Action Contract (RAC), Various Installations throughout Northeast portion of NAD. Managed a $50 million per year regional operation providing engineering, management, and construction support at HTRW sites and military facilities located in the Northeastern USA. Work completed under this $250 million cost reimbursable contract included remediation of landfills, cleanup of contaminated soil and groundwater, removal of USTs, removal actions and cleanup of OE/UXO and scrap metal at No-Man's Island and Camp Wellfleet, MA. Ensured technical quality of work, and that staffing and regulatory compliance were of a high standard/quality and achieved contract requirements. Directly responsible for PE stamping of design documents and issuing construction and permit application documents.

Project Manager, USACE New England Division, Indefinite Delivery HTRW A-E Services Contract, Davis Liquid NPL Site, Smithfield, RI. Managed engineering, pre-design, and design activities for this contaminated soil and groundwater site. Directed investigative studies and engineering for an on-site groundwater extraction and treatment system. Work included hydrogeological modeling; HEC modeling to evaluate ecological risk to streams; hydrologic responses to water extraction, discharge and potential flood events. Responsible for technical quality, cost and schedule.

Program Manager, USEPA Region I ARCS, Pinette's Salvage Yard Site, Washburn, ME. Managed overall contract and several TOs to accomplish remedial design and remedial action activities for this PCB contaminated site. Directed completion of RD including specifications and review and approval of submittals. The project approach included procuring and mobilizing innovative solvent extraction technology to the site. Contaminated soil and sediment was excavated and impacted wetlands were restored to their original condition, compliant with federal and state regulations. Ensured project compliance with all contract and regulatory requirements.

Project Manager, USDOE, Fernald Environmental Management Project (FEMP), Engineering Evaluation/Cost Analysis (EE/CA) for Management of Contaminated Structures, Fernald, OH. Managed a cost reimbursable multi-TO effort at this large federal facility, with responsiblity for preparing an EE/CA to address remediation of radiological and chemically contaminated structures at the 1100 acre facility. The EE/CA established a broad-based plan for implementing decontamination and demolition (D&D) of contaminated structures and production-associated facilities and equipment from the former production area consistent with remediation regulatory requirements, including NEPA, RCRA, and CERCLA. The EE/CA identified alternatives

for managing the contaminated structures; documented the selection of a preferred response; and addressed health, ecological and environmental impacts associated with the proposed action. Developed a broad-based decision-making plan for implementing removal actions based on level of risk, cost and schedule factors. The plan was approved by state and federal regulators and formed the basis for an interim Record of Decision. Design plans were prepared for construction of staging and storage areas to support remediation. Ensured compliance with RCRA and TSCA regulations and integrated the requirements of CERCLA and NEPA into an Environmental Assessment (EA) document which addressed Public Health and air quality impacts related to the proposed D&D removal actions.

Project Manager, USEPA Region I, Davis Liquid NPL Site, Smithfield, RI. Managed the RD/RA for this $8 million cost reimbursable remediation. The project involved providing an alternative water supply; interfacing with USEPA Region I, state regulatory agencies and municipal authorities; supporting public meetings; and managing subcontracts. Successfully worked with state and local officials to acquire numerous easements and land. Work included construction of an alternate water supply, excavation and construction activities in riverine areas and wetlands including diversion of river/stream flow, soil and erosion control measures, and wetland assessment and protection measures. Ensured regulatory compliance.

Engineering Manager, USACE New England Division, Indefinite Delivery Contract for Hazardous Waste Projects. Responsible for AE type services, field engineering and design activities performed for a three-year, $6 million indefinite delivery order contract at HTRW locations in New England. Ensured technical quality for work performed at the Nyanza Chemical Superfund site in Ashland, MA and Charles George Landfill in Tyngsborough, MA. TOs included wetland delineation, sediment sampling, and other design-related activities.

Engineering/Technical Manager USEPA Region I, REM III Contract, Providing Environmental Remediation, Various Installations. Provided technical quality, engineering, and management support for this $158 million cost reimbursable contract. Managed cost and schedule and contract compliance for TOs. Work included RI/FS, RDs, RAs, community relations, and enforcement oversights at 38 HTRW sites. At the Baird & McGuire/Cochato River Superfund Site in Holbrook, MA, provided management and engineering support for investigations to determine nature and distribution of river sediment contamination and water supply studies. At the Cannon's Plymouth site in Plymouth, MA managed cost, schedule, and contract compliance for the remediation of three 300,000 gallon ASTs, soil, buildings and debris.

Project Engineer, Waterford No. 3 Nuclear Generating Facility, Killona, LA. Responsible for management, planning, and construction oversight of modifications on this cost reimbursable contract to a Nuclear operating facility. Responsible for managing cost and schedule for TOs involving construction of radwaste sampling, treatment and disposal systems. Also, managed technical quality, cost and schedule for construction of a water polishing and treatment system using a design-build delivery system. Responsibilities also included design review and constructability analysis

c. Working Knowledge of Federal, State, Local Laws, Regulations, and Guidance

Extensive work with the following regulations and guidance: CERCLA; RCRA; SDWA; CWA; TSCA; NEPA; NESHAPS; and USACE general and HTRW-specific construction, engineering, design, O&M, and safety and health regulations on over 200 projects in 10 different states within NAD. Served as Program Manager for HTRW remediation projects requiring compliance with federal and state ARARs at the following example facilities/installations: Pinette's Salavage Superfund Site, Washburn, ME; Davis Liquid Waste NPL Site, RI, Nyanza Chemical Superfund site, MA and the WR Grace Wells G&H site. Interacted directly with USEPA Region I and V regulators and various state regulators to complete the remedy selection process including supporting the FS phase, selection of remedy and providing support through the public comment period. At the Fernald, Ohio Mixed Waste Site worked with USEPA and OEPA to issue a Record of Decision that addressed RCRA, CERCLA, TSCA and NEPA regulations. At Silresem Superfund Site, worked closely with USACE COR and USEPA RPM to ensure work was completed in exact accordance with regulations and USACE New England District guidance. Obtained treatment plant occupancy and operations permits with MADEP and City of Lowell offficals. At Davis Liquid NPL site worked with RIDEM state regulators and secured construction permits, environmental permits and wetlands permits.

ENVIRONMENTAL

October 25, 2002

Attention: Mr. Richard Hamlin

Reference: Assignment as Project Superintendent for Landfill 1 Cover Improvements at the Former Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Project Superintendent for the above referenced project. In this capacity your are responsible for and have the authority necessary to ensure that the project is executed in accordance with the requirements contained in the plans and specifications. You will report directly to Lou Seijido, P.E., the Project Manager. Specific responsibilities include, but are not limited to:

- Directing all field work in compliance with all project requirements including subcontractor work efforts;
- Scheduling and coordinating all field work performed by Conti and its subcontractors;
- Ensuring that all field work is performed in accordance with the CQC Plan and the Site Safety and Health Plan (SSHP) and meets or exceeds all quality standards.

Very truly yours

John Czapor
Vice President

CORPORATE HEADQUARTERS:
Conti Environmental, Inc. 3001 South Clinton Avenue South Plainfield NJ 07080 Telephone (908) 561-9025 FAX (908) 561-0450

AN EQUAL OPPORTUNITY EMPLOYER

Project Superintendent

Rich Hamlin (Conti)

a. Education

- Vocational certifications in General construction, carpentry, masonry, heavy equipment and mechanical (Heating and Electrical). Blueprint reading and estimating.
- 40 Hour OSHA Health and Safety Training for Hazardous Waste. (29 CFR 1910.120)
- 8 Hour OSHA Supervisors Training. (29 CFR 1910.120)
- Confined Space Entry Training. (29 CFR 1910.46)
- Laser Alignment Setup Certified. (29 CFR 1926.54)
- Certified in First Aid and Adult CPR Training.

Highlights of Relevant Experience
➢ 27 years of heavy construction experience including managing and executing HTRW remediation site activities in accordance with the approved SOW, work plans, and all federal, state, and local regulations
➢ Served as Remediation Manager/Site Superintendent on HTRW projects, including AFBG working with USACE supervision
➢ Experience meeting quality control criteria and ensuring regulatory compliance
➢ Major Earthwork, site preparation, and infrastructure

b. Experience

Currently serving as a Project Superintendent with 27 years of experience providing construction, construction management and environmental cleanup management. Experienced in all phases of large-scale site work operations including major earthwork, cut and fill, grading, subsurface utilities, subgrade preparation, clearing and grubbing, infrastructure installations of potable water supply, sanitary sewer and storm drainage installations. Managed construction for large-scale condominium complex and multi level commercial buildings as well as over 55 residential housing units. Experienced manager of environmental cleanup projects.

1) 04/02 to Present: Conti Environmental, Inc., South Plainfield, NJ, Remediation Manager/Project Superintendent. Directs field activities at HTRW remediation projects, including those at BRAC and Superfund sites. Manages and executes all site activities in accordance with the approved SOW, work plans, SSHP, and all federal, state, and local laws and regulations. Ensures that construction activities are performed in accordance with applicable drawings, specifications codes, and standards. Coordinating with the Project Manager, SSHO, CQC System Manager, and regulatory specialist , implements all project QC, scheduling, and Safety & Health. Coordinates all on-site personnel and equipment to complete assigned activities in a safe and cost-efficient manner. Relevant project experience includes:

Project Superintendent, Former Griffiss AFB, Landfill Cover Improvements, Rome, NY. Managing all on-site activities for environmental remediation work at the former Griffiss AFB in Rome, NY as part of the Base Realignment and Closure Program. Five separate delivery orders are being implemented with a total value of over $12 million. Responsibilities include management and oversight of all day to day field activities, managing field office operations, and coordination of all construction activities with the prime contractor and the client.

2) Metcalf and Eddy, Wakefield, NJ, Remediation Manager/Project Superintendent. Managed the removal, cleaning and disposal of over 150 fuel storage tanks, oil-water separators, and piping systems with sizes up to 50,000 gallons at the **former Griffiss AFB**. Designed and constructed 3 ex-situ Bio-Remediation areas at the base to landfarm some 70,000 +cyds. Of petroleum contaminated soil. Designed and constructed 16 Bio-piles for contaminated soil remediation with Regenair blowers and PVC piping. Ordered and installed oil water separators, USTs and ASTs and all associated piping. Ordered and installed all materials and equipment for an in-situ bio-vent pilot project. Oversaw all site restorations including roads, asphalt, concrete and topsoil. Managed up to 11 employees at the **former Griffiss AFB** office. Developed and maintained positive working relationships with the prime contractor,local AFBCA officials and AFCEE representatives as well as all subcontractors.

Managed all on-site activities associated with the excavation and disposal of 11,810 tons of hazardous lead contaminated soil generated from the base firing range at Griffiss AFB. Work included reconstruction of the firing range to original conditions.

Managed all on-site activities associated with the remediation of the Pump-House 5 site at **Griffiss AFB**. Work at this site included the excavation of over 50,000 tons of material and site restoration

*3) **Beaver Meadow Construction Inc.*** Managed a wide range of residential, commercial, road and utility construction work over an 18 year period.

- Construction of over 55 residential homes in upstate New York ranging in costs from $90,000 to $450,000.
- Development and construction Timber Point Resorts in Russia, New York
- Construction of 1.2 miles of private roads and three residential log structures for the Timber Cove Development Corp.
- Construction of a commercial recreation building and sanitary sewerage system for the Town of Remsen, NY
- Demolition of concrete structures, capping of utilities, installation of signage and road restoration for the Griffiss Local Development Corporation.
- Constructed multi level commercial law office in Utica, New York, including site development and utilities.
- Served as construction manager for a contracting company on various projects including road construction, and utilities installation.
- Constructed numerous salt storage buildings in the northeast for Domar Engineering.

4) Other Previous Experience:

Supervised and managed all site work for a large residential complex. Work included demolition and removal of USTs. Removal of contaminated soils and debris, backfill, compaction and grading. Ordering and scheduling of equipment as well as utilities materials for all infrastructures work. Water, Electric, Sewer, and storm drain piping. All catch basins and manholes.

Supervised crews remodeling a chain of service stations in southeastern US. Duties included demolition and removal of structures, USTs, ASTs, pump islands piping and canopies. Removal of contaminated soils and debris. Construction of new facilities and overseeing installation of new storage tanks and pumps. Responsibilities included Health and safety, payroll.and all subcontracts. Meeting tight construction schedules on fixed bedgets as well as scheduling.

ENVIRONMENTAL

October 25, 2002

Attention: Mr. Bob Scerbo

Reference: Assignment as Chemical Quality Control Coordinator for Landfill 1 Cover Improvements Project at Former Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Chemical Quality Control Coordinator for the above referenced project. In this capacity you are responsible for and will implement Chemical QC activities contained in the SAP prepared for this project. Specific responsibilities include, but are not limited to:

- Implementation of the SAP;
- Coordination of all Chemical data QC activities with the
- CQCSM, Project Manager and Project Superintendent as well as the USACE's QA organization;
- Supervision of all tests required by the specifications;
- Field inspections by yourself or the QC staff assigned by you;
- Maintenance of all required Quality Control Documentation, as per the specifications;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Submittal of all required QC documentation, including Daily QC Reports and QC test reports.

As Chemical Quality Control Coordinator you have authority to stop work that is not compliant with the contract.

Very truly yours

John Czapor
Vice President

CORPORATE HEADQUARTERS:
Conti Environmental, Inc. 3001 South Clinton Avenue South Plainfield NJ 07080 Telephone (908) 561-9025 FAX (908) 561-0450

AN EQUAL OPPORTUNITY EMPLOYER

Chemical Quality Control Coordinator

Robert Scerbo (Conti)

a. Education

University of Delaware, BS, Biological Sciences (includes 20 semester hours of chemistry), 1987
Training: 16-hr DOT Training/Testing , 1998;

McCoy RCRA Seminar on Standards Applicable to Generators of Hazardous Waste, Land Disposal Regulations, Advanced RCRA Topics, and Critical Generator Issues, 1999

b. Experience

(1) 10/90 to Present: Conti Environmental, Inc., South Plainfield, NJ, Chemical Quality Control. Coordinates the review and approval procedures for all manifests. Develops and implements field sampling and testing programs, and assists in preparing SSHPs. Conducts on-site regulatory compliance monitoring programs, and completes all exception and discrepancy reports. Identifies all required permits for treatment and disposal of contaminated soil, water and air and prepares permit applications for on-site treatment facilities. Developed and implemented all elements of Conti's regulatory compliance program for the management and disposal of wastes generated from Conti-owned equipment maintenance facilities.Manages all aspects of waste characterization and disposal for 60+ ongoing HTRW projects, including 16 Superfund sites. Serves as single source for all regulatory matters. Manages the profiling, manifesting, and tracking of wastes. Completes manifest requirements in exact accordance with SOW, Conti's approved SSHP, Field Sampling Plan, and all federal, state, and local laws and regulations. Coordinates the review and approval procedures for all manifests. Conducts on-site regulatory compliance monitoring programs, and completes all exception and discrepancy reports. Identifies all required permits for treatment and disposal of contaminated soil, water and air and prepares permit applications for on-site treatment facilities. Developed and implemented all elements of Conti's regulatory compliance program for the management and disposal of wastes generated from Conti-owned equipment maintenance facilities.

(2) 01/89 to 10/90: NUS Corporation, Edison, NJ, Environmental. Scientist. Conducted site investigations at 25+ HTRW sites, 6 as Lead Investigator, under an EPA cost reimbursable FIT contract. Provided instruction on appropriate EPA sampling and documentation protocols.

CQCC, GGM Building Demolition, Welsbach Superfund Site (FFP, 07/00 to present). Currently serving as CQCC for this project, which is being performed under Conti's existing PRAC with the KC District for USEPA Region II. The task order (TO) includes the demolition of the abandoned GGM plant contaminated with thorium and uranium residue and the off-site disposal of radiologically contaminated waste, mixed waste and non-hazardous debris. Mr. Scerbo coordinated the development of a detailed Sampling and Analysis Plan that has both radiological and chemical components and includes field screening for radionuclides, air sampling for radiological and chemical compounds, waste characterization sampling, analysis of water subject to pretreatment discharge requirements, and soil sampling.

CQCC, Moyer Landfill Superfund Site (CR and FFP, 04/93 to 07/98). Managed the development of the Chemical Data Quality Management Plan, which included field screening, sampling and sample management procedures for a range of activities, specifically: baseline landfill gas, leachate monitoring, perimeter air monitoring during construction, drummed material characterization and computability, and soil borrow source testing. Provided continuous oversight of sampling for a two-year post-construction monitoring period. All data was developed and presented in accordance with USACE protocols.

CQCC, Caldwell Trucking Superfund Site (FFP, 06/93 to 08/94). Reviewed RCRA regulations and developed and obtained EPA Region II and NJDEP's approval for using a rigorous soil sampling and classification plan to more accurately characterize this Superfund site's VOC-contaminated soil. Coordinated complex in situ field sampling program to characterize soil contaminated with VOCs, metals, and PCBs. Managed all of the project's data acquisition, analysis and management issues, resulting in the optimal disposal of five waste streams at four different waste disposal facilities. The in situ sampling program reduced the volume of waste requiring incineration by 60%, with a cost savings to the client of over $900,000.

CQCC, Galaxy/Spectron Superfund Site (FFP, 06/98 to 05/99). Served as CQCC for the $2.8M remediation of VOC-contaminated soil and groundwater and a complex riverine restoration at this Superfund site. Developed and implemented the Sampling and Analysis Plan that included surface water discharge monitoring in compliance with Maryland Department of the Environment Temporary Discharge Authorization, and perimeter air sampling for VOCs utilizing Summa Canisters and TO-14 analysis.

CQCC, Former L.E.C. Site (FFP, 09/96 to 09/97). Implemented a field screening program which used Draeger tubes and OVM measurements to screen excavated soil for selection of the appropriate treatment method. Developed and implemented air monitoring program, in compliance with a NJDEP air permit, for emissions from air pollution control (APC) system used to treat volatile organic compounds released during treatment process.

ENVIRONMENTAL

October 25, 2002

Attention: Mr. Ray Smith

Reference: Assignment as Contractor Quality Control System Manager for Landfill 1 Cover Improvements Project at Former Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Contractor Quality Control System Manager for the above referenced project. In this capacity you are responsible for and will implement QC activities contained in the CQCP prepared for this project. Specific responsibilities include, but are not limited to:

- Implementation of the CQCP;
- Coordination of all QC activities with the Project Manager and Project Superintendent as well as the USACE's QA organization;
- Supervision of all tests required by the specifications;
- Field inspections by yourself or the QC staff assigned by you;
- Maintenance of all required Quality Control Documentation, as per the specifications;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Submittal of all required QC documentation, including Daily QC Reports and QC test reports.

As Contractor Quality Control System Manager you have authority to stop work that is not compliant with the contract. You will report directly to Mr. John Czapor, Vice President of Conti Environmental, Inc. on all matters relating to QC.

Very truly yours

John Czapor
Vice President

CORPORATE HEADQUARTERS:
Conti Environmental, Inc. 3001 South Clinton Avenue South Plainfield NJ 07080 Telephone (908) 561-9025 FAX (908) 561-0450

AN EQUAL OPPORTUNITY EMPLOYER

Contractor Quality Control System Manager (CQC

Ray Smith (Conti)

a. Education

- Ohio University, Athens, Ohio, Bachelor of Science in Zoology, 1990
- Ohio University, Athens, Ohio, Master of Science in Environmental Geology, 1990
- 40 Hour OSHA Training (per 29 CFR 1910.120) 1984; Annual Refresher, 2002
- 8 Hour Hazardous Waste Supervisor Training, 2001
- Competent Person Training, National Utility Contractors Association, 1998
- First Aid / CPR, American Red Cross, 2001

b. Experience

1) 9/02 to present: Conti Environmental, Inc., South Plainfield, NJ; CQC Systems Manager.

CQC Systems Manager, USACE Remedial Action Contract, Griffiss Air Force Base, NY. Manages Conti's QA/QC Program for the Landfill 1 cover improvements installation at Griffiss Air Force Base. Mr. Smith is the primary contact regarding all QC matters for this project. Responsible for all QC activities, including fulfilling the requirements identified in the TO for the CQC Plan, management of the submittal process utilizing the USACE's Resident Management System (RMS), oversight of all testing, and coordination of inspections.

2) 03/01 to 5/02: Groundwater & Environmental Services, Inc., Syracuse, New York. Managed site investigation and remediation projects for major petroleum and transportation companies throughout central New York. Responsible for project planning, technical development, quality control, and management of remedial investigations. Project management experience included daily administration of projects, proposal and budget preparation, client and regulatory agency interaction, and supervision and training of technical staff. Planned, organized, coordinated and/or supervised professional work relative to hydrogeology, the subsurface migration of contaminants, and remedial actions necessary to abate or control groundwater and soil contamination. Technical experience included exposure assessment preparation in accordance with NYSDEC guidelines, remedial testing, remedial system design and installation, operation and maintenance of soil vapor extraction, air sparging, groundwater pump-and-treat, and high-vacuum, total-phase extraction remedial systems.

3) 1/94 to 03/01: PEER Consultants, P.C., Rockville, Maryland.

Task Manager, Installation Restoration Program, Griffiss Air Force Base, NY. Responsibilities included conducting site characterizations to identify and delineate soil and groundwater contamination, conducting soil sampling direct-push techniques and soil borings, preparing drill logs, characterizing the subsurface stratigraphy, and installing and sampling monitoring wells. Supervised above ground and underground storage tank removal, oil/water separator removal, abandonment and closure of wastewater conveyance systems, contaminated soil removal, and *ex-situ* bioremediation of contaminated soils. Coordinated analytical data, prepared project reports, prepared closure reports for above ground and underground storage tank and oil/water separator removals. Directed field team members on work procedures, ensured subcontractors performed activities in accordance with QA/QC procedures, and acted in the absence of the health and safety officer.

Field Operations Manager, Miami International Airport, Miami, FL. Managed field operations for oversight of environmental cleanup operations for the Dade County Aviation Department at Miami International Airport, Florida. Responsibilities included environmental oversight during construction activities, coordinating with project managers to schedule and oversee field work, supervising and assigning field work tasks to field assistants, ensured field assistants and subcontractors performed activities in accordance with QA/QC procedures.

ENVIRONMENTAL

October 25, 2002

Attention: Mr. Dean Hall

Reference: Assignment as Alternate Contractor Quality Control System Manager for Landfill 1 Cover Improvements Project at Former Griffiss Air Force Base

This letter serves as notification that you are assigned to serve as the Alternate Contractor Quality Control System Manager for the above referenced project. In this capacity you are responsible for and will implement QC activities contained in the CQCP prepared for this project. Specific responsibilities include, but are not limited to:

- Implementation of the CQCP;
- Coordination of all QC activities with the Project Manager and Project Superintendent as well as the USACE's QA organization;
- Supervision of all tests required by the specifications;
- Field inspections by yourself or the QC staff assigned by you;
- Maintenance of all required Quality Control Documentation, as per the specifications;
- Directing and overseeing all engineering, studies and field activities conducted for the project; and
- Submittal of all required QC documentation, including Daily QC Reports and QC test reports.

As Alternate Contractor Quality Control System Manager you have authority to stop work that is not compliant with the contract. You will report directly to Mr. John Czapor, Vice President of Conti Environmental, Inc. on all matters relating to QC.

Very truly yours

John Czapor
Vice President

CORPORATE HEADQUARTERS:
Conti Environmental, Inc. 3001 South Clinton Avenue South Plainfield NJ 07080 Telephone (908) 561-9025 FAX (908) 561-0450

AN EQUAL OPPORTUNITY EMPLOYER

Alternate CQC Systems Manager

Dean S. Hall (Conti)

a. Education

- Cornell University, Ithaca, New York, Bachelor of Science in Environmental Technology, 1988
- 40 Hour OSHA Training (per 29 CFR 1910.120) 1988; Annual Refresher, 2001
- 8 Hour Hazardous Waste Supervisor Training, 1990
- Confined Space Entry Supervisor Training, 1992
- 24 Hour Hazardous Material Handling Training (per 49 CFR 172.700), 1994
- Radiological Worker I Training (per DOE N5480.6), 1994
- USACE Construction Quality Management for Contractors, 2001
- Introduction to Primavera Project Planner 3.0, 2002

b. Experience

1) 9/01 to present: Conti Environmental, Inc., South Plainfield, NJ; CQC System Manager/ Project Engineer/Project Manager.

Contractor Quality Control System Manager (CQCSM), USACE Remedial Action Contract, Griffiss Air Force Base, NY. Responsible for implementation of the Contractor Quality Control System during the installation of landfill cover improvements for the closure of Landfills 2/3, 5 & 7 at the former Air Force Base.

Project Engineer, USACE Pre-Placed Remedial Action Contract, Welsbach/GGM Superfund Site, Gloucester City, NJ. Responsible for preparation and implementation of project work plans for the remediation of private properties contaminated with low levels of radiocative waste. Project tasks included preparation of Scope of Works for subcontracts involving surveying, waste transportation, and radioactive water treatment system.

Project Engineer, USACE Remedial Action Contract, Griffiss Air Force Base, NY. Responsible for preparation of project work plans for the installation of landfill cover improvements for the closure of several landfills at the former Air Force Base per NYCRR Part 360. Task Orders included landfill capping and installation of groundwater collection trench and treatment system at multiple landfill sites contaminated with solvents, lead, asbestos and PCBs.

Project Manager, Private Client in Jersey City, NJ. Responsible for implementation of interim remedial measures at a chromium contaminated site. Work included the patching of asphalt parking lot and the placement of drill cuttings underneath the existing liner. Performed all project management related tasks including cost tracking and invoicing.

2) 02/01 to 8/01: E. Terry Landscape Contractor, Long Valley, New Jersey. Landscape Assistant with a well established landscape contractor working strictly on high-end residential projects in Morris and Hunterdon Counties. Projects involved the construction of brick paver patios, pool decks and driveways, various retaining walls, and the installation of fences, lampposts, guardrails, trees and shrubs as well as new lawns.

3) 8/97 to 12/00: Cedar Hill Landscaping, Somerset, New Jersey. Estimator for one of Central Jersey's largest heavy landscapers and topsoil/bulk landscape supply companies. Accountable for hydroseeding sales and the bidding of public and private contract work. Projects included site grading, park and athletic field construction and renovation projects. Increased hydroseeding business by approximately 50% through personal

sales and client development. Initiated spreadsheet tracking of projects to measure growth and profitability. Managed large-scale projects from sales through delivery and tracking. Substantially increased sales resulting in companies' most profitable year in 1999. Initiated focus on environmental remediation projects and landfill closures to expand business.

4) 9/96 to 7/97: EA Engineering, Science & Technology, Berkeley Heights, New Jersey.

Construction Manager at a Municipal Landfill Capping Project in southern New Jersey. Project involved the capping of a 25-acre landfill with clay and geomembrane layer, the installation of gas wells and gas collection system and road construction. Performed subcontractor oversight, submittal preparation, quality control functions, daily cost tracking, field purchasing, and was responsible for daily client relations. Prepared monthly cost summary reports and estimates to complete.

5) 10/88 to 9/96: IT Corporation, Edison and Somerset, New Jersey.

Site Supervisor at an EPA Superfund Site in Dutchess County, New York. (USACE-KC Contract). Managed field office, work crews, and handled all communications with client, EPA and local community.

Project Manager for the closure of two property transfer (ISRA/ECRA) cases (value $750,000). Prepared ground water monitoring and closure reports and soil remedial closure reports. Performed all project administrative duties and acted as primary client and regulatory agency liaison.

Field Engineer at a remedial project performed by the Department of Energy on Long Island, NY. Project involved the demolition and disposal of radioactive waste tanks. Oversaw remedial contractor, prepared daily and weekly logs, completed waste disposal/characterization forms and prepared final project closure report.

Field Supervisor for a sewer inspection, cleaning and videotaping project (value $9 million) at a major oil refinery and terminal in New Jersey. Managed field office, provided subcontractor oversight, interacted with local labor union employees and acted as primary client contact.

Field Engineer for the removal and destruction of unexploded ordnance at a former US Army arsenal. Managed field crews during the investigative and remedial phases of the project, including the excavation and destruction of unexploded ordnance from wetlands and the remediation of TNT contaminated soil.

Field Engineer on a PCB Soil Remediation project under contract with US Navy (NEESA-PCB Contract). Managed the transportation and disposal of TSCA-regulated soil and PCB contaminated water, performed government property tracking and subcontractor oversight.

Field Engineer at a large PCB soil and ground water remediation project under ECRA. Performed all on-site project tracking and oversight duties as well as the execution and reporting for a ground water monitoring program under NJPDES. Prepared remedial work plans and soil erosion plans for ECRA soil remedial projects.

Project Engineer for a UST compliance project at two US Naval research centers. Provided oversight for tank tightness testing and developed a compliance strategy with associated costs.

U.S. ARMY CORPS OF ENGINEERS

PROFESSIONAL DEVELOPMENT SUPPORT CENTER
HUNTSVILLE, ALABAMA

CERTIFICATE

This is to certify that

Dean Hall

Conti Environmental, Inc.

has completed the Corps of Engineers Training Course

CONSTRUCTION QUALITY MANAGEMENT FOR CONTRACTORS

Given at Vineland Ofc. (Location) By Philadelphia (Instructional District) 11/15/01 (Date)

Mr. Stephen J. Creighton, (856) 794-9925
Facilitator

Gary F. Anderson
Chief, USACE Professional Development Support Center

THIS CERTIFICATE EXPIRES FIVE YEARS FROM DATE OF ISSUE

LANDFILL 1 - Landfill Cover and Groundwater/Leachate Treatment
DEFINABLE FEATURES OF WORK
TRACKING LOG AND SUMMARY TABLE

Specification Section Scope of Work	Defineable Feature of Work	Submittals/Subtasks	Subtasks	Submittal Status	Preparatory Phase		Initial Phase		Follow-up Phase		Non-conformance Reports		
					Scheduled Date to begin	Status	Scheduled Date to begin	Status	Scheduled Date to begin	Status	Non-conformance Report #	Date Identified	Date Corrected
	Survey and Determination of Boundaries												
01050		Submittals	1. Surveyor Qualifications 2. Documentation verifying accuracy of surveying work 3. Certificates of Elevations and locations 4. Field Data 5. Initial Topographic Map - Grading Plan on 50' x 50' grid 6. Topographic Map after installation of subgrade material 7. As-Built Topographic Map (final grades) 8. Benchmarks										
		Field Activities	1. Verify locations of site references and survey control points prior to starting work 2. Install elevation benchmarks and horizontal control points 3. Locate and layout all site features to be constructed 4. Provide grade and offset stakes to control the location and depth of fill 5. Install permanent elevation benchmarks										
02670	***Decommission Monitoring Wells***	Submittals	1.Well Decommisioning Report										
		Field Activities	1. Excavate the ground surrounding each well 2. Pull out and dispose the riser and screen 3. Remove all remaining material and dispose 4. Place the cement/bentomite grout										
	Site Preparation Activities												
		Submittals	1. Qualifications of electrical contractor 2. Soil Erosion and Sediment Control Plan 3. Preconstruction Survey										
		Field Activities	1. Install temporary site utilities 2. Install and hookup edectrical service 3. Install temporary construction facilities 4. Implement traffic control plan 5. Install staging and decontamination facilities 6. Restoration of staging areas 7. Identify & mark resources not to be disturbed 8. Abandon existing underground line 9. Install erosion and sedimentation control devices 10. Implement and maintain water and air resources protection measures 11. Implement waste handling and disposal methods 12. Post Construction Cleanup 13. Restoration of Landscape damage 14. Maintenance of pollution control facilities 15. Removal of Erosion and control measures										
02230	***Clearing and Grubbing***	Submittals											
		Field Activities	1. Clear and grub work areas 2. Transport and Dispose of material on-site										
02300	***Earthwork - Cut/Fills Waste Consolidation***	Submittals	1.Chemical Test Results of Imported Material 2. USCS Classification, Atterberg Limits, Particle Size, and Moisture Content of Imported Material 3.Post excavation/reclamation chemical Test Results										
		Field Activities	Subgrade: 1. Excavate, Regrade, & Compact Waste Material 2.Excavate, remove and transport ash from area north of Landfill 3. Import, Place and Grade Borrow Material in former ash area 3. Compact subgrade (Waste and Borrow) 4. Establish subgrade elevation 5. Survey and prepare final subgrade topographic map 6. Retore area north of Landfill										
	Installation of Fill Layers												
02301	Bedding Layer	Submittals	1.Chemical Test Results of Imported Material 2. USCS Classification, Atterberg Limits, Particle Size, and Moisture Content of Imported Material 3. Compaction Characteristics, In-place density results, & rapid moisture content results										
		Field Activities	Bedding Layer 1. Place Bedding Layer Material 2. Compact Material 3. Perform density control and geotechnical testing 4. Verify installation thickness										
02302	Barrier Protection Layer	Submittals	1.Chemical Test Results of Imported Material 2. USCS Classification, Atterberg Limits, Particle Size, Moisture Content, & Hydraulic Conductivity of Imp. Material 3. Compaction Characteristics, In-place density results, & rapid moisture content results										
		Field Activities	Barrier Protection Layer 1. Place Barrier Protection Layer Material 2. Compact Material										

LANDFILL 1 - Landfill Cover and Groundwater/Leachate Treatment
DEFINABLE FEATURES OF WORK
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					Scheduled Date to begin	Status	Scheduled Date to begin	Status	Scheduled Date to begin	Status	Non-conformance Report #	Date Identified	Date Corrected
			3. Perform density control and geotechnical testing										
			4 Verify installation thickness										
02921	Installation of Topsoil	Submittals	1.Chemical Test Results of Imported Material										
			2. Organic Content, Particle Size, pH and Soluable Salts										
		Field Activities	Topsoil										
			1. Place topsoil layer from stockpile										
			2 Place topsoil import										
			3. Verify installation thickness										
			4. Final As-Built Survey										
	Installation of Geosynthetic Materials												
02372	Geomembrane	Submittals	1. Manufacturing/Resin Supplier Certifications										
			2. Multi-Axial Test (Manufacturer)										
			3. Qualifications of Installer										
			4. Interface Friction Test Results										
			- Bedding/Smooth VFPE Interface										
			- Smooth VFPE/Geocomposite										
			- Bedding Layer/Texture VFPE Interface										
			- Tetured VFPE/Geocomposite Interface										
			- Geocomposite/Barrier Protection Interface										
			5. Trial Field Seaming Results (Field)										
			6. Non-Destructive Field Seaming Results (Field)										
			7. Destructive Field Seaming (Field)										
			8. Destructive Field Seaming (Independent Lab)										
			9. Proposed Panel Layout Drawing										
		Field Activities	1. Verify Subgrade/Subgrade Acceptance Form										
			2. Deploy Liner over approved areas										
			3. Perform required daily trial field seam welds										
			4. Field Seam liner panels										
			5. Perform nondestructive field seam testing										
			6. Perform destructive field seam testing.										
			7. Install boots around penetrations										
			8. Properly anchor liner in anchor trench										
			9. Verify locations of destructive field seams										
			10. Panel layout and as-built boundaries										
02373	Geocomposite	Submittals	1. Manufacturing Certifications										
			2. Transmissivity Test Results										
		Field Activities	1. Deploy geocomposite over approved/lined areas										
			2. Install fasteners as required										
			3. Properly install geocomposite in anchor trench										
			4. Install boots around penetrations										
02374	Geotextile	Submittals	1. Manufacturing Certifications and QA sample test results										
		Field Activities	1. Deploy geotextile over approved areas (verify subgrade)										
			2. Overlap seams as required										
06654	Geogrid	Submittals	1. Manufacturing Certifications										
		Field Activities	1. Deploy geogrid over approved areas										
			2. Placed on slopes steeper than 4H:1V										
			3. Place directly over geocomposite layer										
			4. Temporarily secure geogrid in place with sand bags										
	Install Leachate Collection Trench												
		Submittals	1. Pipe material Cerfitications										
			2. Geomebrane Manufacturing Certifications										
			3. Stone Material Certification/Geotechnical data										
			4. Sump Specifications										
			5. Biopolymer Slurry Specification/Plan										
		Field Activities	1. Verify the location & extent of the trench via survey										
			2. Install Trench using biopolymer slurry mix method and haul to spoil to areas designated on Landfill 1										
			3. Field verify the depth and width of the trench										
			4. Install geomembrane, stone and pipe										
			5. Inspect pipe and ansure that backfilling is not causing misalignment or damage										
			6. Install collection sumps and connect pipe, as required										
			7. Backfill the top of the trench with fill										
			8. Restore with topsoil seed and mulch										
	Site work for Leachate Treatment Building												
		Submittals	1. Concrete mix design										
			2. Subbase stone geotechnical data										
			3. Subbase compaction test results										
			4. Concrete slump and break test results										
			5. Rebar or Welded Wire Mat Specifications										
		Field Activities	1. Verify location and layout of building & equipment pads										
			2. Cut/fill as required for foundation grades										
			3. Install stone subbase to the proper thickness										
			4. Install foundation/slab forms to the proper elevation										
			5. Install and secure rebar, as required										
			6. Verify sleeves for piping, conduits, & other embeddments are in place and at the proper elevation										
			7. Ensure provision is made for anchors, bolts, etc.										
			8. Pour & Screed Concrete										
			9. Remove all formwork after sufficient curing										
			10. Install crushed stone roadway to the treatment plant										

LANDFILL 1 - Landfill Cover and Groundwater/Leachate Treatment
DEFINABLE FEATURES OF WORK
TRACKING LOG AND SUMMARY TABLE

Specification Section Scope of Work	Definable Feature of Work	Submittals/Subtasks	Subtasks	Submittal Status	Preparatory Phase		Initial Phase		Follow-up Phase		Non-conformance Reports		
					Scheduled Date to begin	Status	Scheduled Date to begin	Status	Scheduled Date to begin	Status	Non-conformance Report #	Date Identified	Date Corrected
	Installation of Pre-engineered Bldg	Submittals	1. Building plans and layout 2. Building installer qualifications/Certifications 3 Foundation/Building Anchor details										
		Field Activities	1. Verify location and layout of building 2. Install building in accordance w/Manufacture recomm. 3. Crane/Rigging to set building components 4. Fasten building to foundation 5. Field paint building components, as required 6. Properly install insulation 7. Install signs to the exterior of the building										
	Mechanical Systems	Submittals	1. Electric pump performance specifications 2. Preengineered treatment system specs & factory testing 3. HVAC system design and specifications 4. Piping valve and pressure guage specifications 5. Collection tank and chemical feed specifications & certs. 6. Pressure testing results on installed piping for water tightness										
		Field Activities	1. Install pump in collection sumps 2. Install HDPE piping from pump to Treatment Building 3. Set treatment equipment on foundation pads 4. Connect external piping to treatment system components 5. Connect components of the treatment system 6. Install duct work as required for heating/ventilation 7. Field Painting of piping/Components 8. Pipe leak testing results										
	Electrical/Control Systems	Submittals	1. Specifications on Master System Control Panel 2. Specifications on pump controllers for vault & chemcial feed 3. Material specifications and certifications - lighting, outlets, wiring, and circuit panels										
		Field Activities	1. Install circuit panels 2. Install wiring to equipment, outlets and lighting 3. Install transformer and poles to power facility										
	Treatment System Start-up and O and M	Submittals	1. Proposed Operation and Maintenance Manual 2. Sampling and analysis test results(influent and effluent)										
		Field Activities	1. Startup and operation of entire system 2. Fine tune chemical feed applications 3. Collect plant influent and effluent samples										
	Site Restoration Activities	Submittals	1. Specifications and Material Certifications for Seed/Fertilizer 2. Erosion Control Matting Specification 3. Erosion Control Matting Specification										
		Field Activities	Fertilizer and Seeding: 1. Apply fertilizer 2. Perform seeding 3. Provide erosion control lining 4. Survey to confirm final grades Outlet Protection 1. Install Rip-Rap at base of proposed swale 2. Install new culvert										
Drawing C-5	**Passive Gas Vents**	Submittals	1. Manufacturing Material Certifications										
		Field Activities	1. Excavate/prepare subgrade for Vent insatllation 2. Install Gas vents										
Drawing C-5	**Gas Monitoring Probes**	Submittals	1. Driller Certifications/ plans										
		Field Activities	1. Prepare area for gas probe installation 2. Install Gas monitoring probes 3. Place concrete pads at grade 4. Restore area										
Drawing C-5	**Access Road Relocation**	Submittals	1. Material Certifications										
		Field Activities	1. Prepare area for new road 2. Install Install geotextile 3. Place NYS DOT No. 3 stone 4. Grade and restore road area										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
01050 Survey

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Survey Qualifications							X					X										
				Verification of Work							X				X											
				Certifications of Elevations and							X				X											
				Locations																						
				Field Data	X										X											
				Initial Topographic Map		X									X											
				As-built Topographic Map		X									X											
				Benchmarks											X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Safety Requirements

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Quals of Site Safety Officer					X							X										
				Quals. of Safety Manager					X							X										
				Safety & Health Training Statement					X						X											
				Medical Training Certs.							X				X											
				Weekley Safety Report						X						X										
				Accident Report						X						X										
				Exposure/Monitoring Sampling Result						X					X											
				Site Control Entry/Exit Log						X					X											
				Safety and Health Phase-out Report						X					X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA$!-01-D-004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment System

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02670 Wells

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Well Decommissioning Report						X				X												

ENG FORM 4288-R, JAN 97 EDITION OF MAR 95 IS OBSOLETE. PAGE ____ O ____ PAGES (Proponent:

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Schedule

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Baseline Project Schedule					X						X											
				Schedule Updates					X						X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Quality Control

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Initial Contractor QC Plan					X							X										
				Daily QC Reports					X						X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
01700 Rec Documents

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Record Documents									X			X										

ENG FORM 4288-R, JAN 97 EDITION OF MAR 95 IS OBSOLETE. PAGE ____ O ____ PAGES (Proponent:

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02300 Earthwork

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
			3.3	Chemical Test Resulsts of Material									X		X											
				Particle Size									X		X											
				Atterburg Limits									X		X											
				USCS Classification									X													
				Moisture Content									X													
				Compaction characteristics									X													

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D0004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02301 - Bedding Layer

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
			3.2	Compaction Characteristics of Soil									X		X											
				In-place Density and Moisture									X		X											
			3.3	Particle Size									X		X											
				Atterburg Limits									X		X											
				USCS Classification									X		X											
				Moisture Content									X		X											
				Chemical Testing									X		X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D0004

TITLE AND LOCATION
Landfill #1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02302 - Barrier Prot.

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
			3.2	Compaction Characteristics of Soil	X								X		X											
				In-Place Density & Moisture	X								X		X											
			3.3	Particle Size	X								X		X											
				Atterberg Limits	X								X		X											
				USCS Classification	X								X		X											
				Moisture content	X								X		X											
				Hydraulic Conductivity	X								X		X											
				Chemical Testing	X								X		X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02921 - Topsoil

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
			2.2	Geotechnical & Chemical Testing	X								X		X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02372 - Geomembrane

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Manufacturing Certifications							X					X										
				Multi-Axial Test (Manufacturer)							X					X										
				Qualifications of Installer							X					X										
				Interface Friction Test Results	X								X		X											
				Trial Field Seamiung Results	X								X		X											
				Non-Destructive Field Seaming Resul	X								X		X											
				Destructive Field Seaming Results	X								X		X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02373 - Geocomposite

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED			SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Manufacturing Certifications	X						X					X										
				Transmissivity Test Results	X						X					X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
02374 - Geotextile

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Manufacturing Certifications	X						X					X										

ENG FORM 4288-R, JAN 97 EDITION OF MAR 95 IS OBSOLETE. PAGE ____ O ____ PAGES (Prooonent

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
06654 - Geogrid

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Manufacturing Certifications	X						X					X										

ENG FORM 4288-R, JAN 97 EDITION OF MAR 95 IS OBSOLETE. PAGE ___ O ___ PAGES

(Proponent:

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Leachate Trench

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Pipe Material Certifications							X					X										
				Geotextile Material Certifications							X					X										
				Extraction Well/Sump Specs	X						X					X										
				Stone Geotechnical Data	X						X					X										
				Feild Testing Pipe/System	X						X				X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Site Work for Bldg

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Concrete Mix Design	X						X					X										
				Concrete Slump & break tests									X		X											
				Subbase Stone Geotechnical Info	X						X				X											
				Rebar Specifications	X						X					X										
				Foundation Design	X						X					X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Pre-Eng. Bldg

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Building Plans and Layout	X	X					X					X										
				Building Installer Qualifications							X					X										
				Foundattion/Anchor Details	X	X										X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Mechanical Systems

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED			SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				Pump Performance Specifications							X					X										
				Prepackaged Treatment systtems	X	X					X					X										
				HVAC System and Design	X	X					X					X										
				Valve & guage specs.	X						X					X										
				Tank Specs	X	X					X					X										
				Pressure and System Test Results	X								X		X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
Electrical Systems

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	CONTRACTOR SCHEDULE DATES: APPROVAL NEEDED BY t.	CONTRACTOR SCHEDULE DATES: MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	CONTRACTOR ACTION: SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
				Master Control Panel	X	X					X					X										
				Pump controllers/Chemical Feed	X	X					X					X										
				Wiring Details and material specs	X	X					X					X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.
DACA41-01-D-0004

TITLE AND LOCATION
Landfill 1 - Landfill Cover and Groundwater/Leachate Treatment

CONTRACTOR
Conti Environmental, Inc.

SPECIFICATION SECTION
System Start up

ACTIVITY NO	TRANSMITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL										CLASSIFICATION		REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS
					DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	INFORMATION ONLY	GOVERNMENT APPROVED		SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOVERNMENT	CODE	DATE	
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
				O&M Manuals										X		X										
				Test Results (Influent & Effluent)	X							X			X											

RECORD OF PREPARATORY AND INITIAL INSPECTIONS

DATE OF INSP	TYPE OF INSP	DEFINABLE FEATURE OF WORK (DESCRIBE)	REPORT NOS		PERSONS ATTENDING INSP	WAS MATL&/OR EQUIPMENT PHYSICALLY INSPECTED
			QA	QC		

NAD FORM 826
22 JULY 86

NOTE:THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK PREP/INIT INSP'S
ATTACH ADDITIONAL RESULTS OR COMMENTS AS REQUIRED

PREPARATORY PHASE CHECKLIST

Contract No.: _____ Date: _____

Definable Feature: _____ Spec Section: _____

Government Rep Notified: _____ Hours in Advance Yes_____ No _____

I. Personnel Present

	Name	Position	Company/Government
1			
2			
3			
4			
5			
6			

(List additional personnel on reverse side)

II. Submittals

1. Review submittals and/or submittal log 4288. Have all submittals been approved?
Yes_____ No _____

If no, what items have not been submitted?

a. _____
b. _____
c. _____

2. Are all materials on hand? Yes_____ No _____

If no, what items are missing?

a. _____
b. _____
c. _____

3. Check approved submittals against delivered material. (This should be done as material arrives).

Comments: _____

III. Material Storage

Are materials stored properly? Yes_____ No_____

If no, what action is taken? _____

IV. Specifications

1. Review each paragraph of specifications.

2. Discuss procedure for accomplishing the work.

3. Clarify any differences.

V. Preliminary Work and Permits

Ensure preliminary work is correct and permits are on file.

If not, what action is taken? _____

VI. Testing

1. Identify test to be performed, frequency, and by whom. _____

2. When required? _____

3. Where required? _____

4. Review Testing Plan. _____

5. Has test facilities been approved? _____

VII. Safety

1. Review applicable portion of EM 385-1-1. _____

2. Activity Hazard Analysis approved? Yes_____ No _____

VIII. Corps of Engineers comments during meeting.

_____
CQC REP

INITIAL PHASE CHECKLIST

Contract No.: _____ Date: _____

Definable Feature: _____

Government Rep Notified: _____ Hours in Advance Yes_____ No _____

I. Personnel Present

	Name	Position	Company/Government
1			
2			
3			
4			
5			
6			

(List additional personnel on reverse side)

II. Identify full compliance with procedures identified at preparatory. Coordinate plans, specifications and submittals.

Comments: _____

III. Preliminary Work. Ensure preliminary work is complete and correct. If not, what action is taken?

IV. Establish Level of Workmanship.

1. Where is work located? Yes_____ No _____
2. Is a sample panel required? Yes_____ No _____
3. Will the initial work be considered as long as possible? Yes_____ No _____
   (if yes, maintain in present condition as long as possible).

V. Resolve any differences.

Comments: _____

VI. Check Safety.

Review job conditions using EM 385-1-1 and job hazard analysis.

Comments: _____

_____

_____

_____

CQC REP

FOLLOW-UP PHASE CHECKLIST

Contract No.: _____ Date: _____

Definable Feature: _____

Government Rep Notified: _____ Hours in Advance Yes_____ No _____

I. Personnel Present

	Name	Position	Company/Government
1			
2			
3			
4			
5			
6			

(List additional personnel on reverse side)

II. Identify compliance with procedures identified at preparatory and initial control phases

Comments: _____

III. Verification of Level of Workmanship.

1. Where is work located? _____
2. Is work consistent with initial control phase sample ? Yes_____ No _____

Comments: _____

iV. Document Differences Identified (if any) and Describe Resolution

Comments: _____

V. Check Safety.

Comments: _____

Follow-up Inspection performed by: _____

Appendix E

TO BE PROVIDED AFTER LABORATORIES ARE CONTRACTED

APPENDIX F

TESTING PLAN LOG

LANDFILL 1 - Landfill Cover and Groundwater/Leachate Treatment Building and System

DFOW to be Tested	Specification Section/ Paragraph	Test Name	Test Procedure to be used	Person/Facility Responsible for Testing	Test Frequency
Common Borrow Fill	02300/3.3	Atterberg Limits	ASTM D-4318	Approved Off-site Geotechnical Lab - TBD	1 test per 1,000 CY of borrow, Minimum of 2 tests per source
		Particle Size Analysis	ASTM D-422	Approved Off-site Geotechnical Lab - TBD	1 test per 2,500 CY of borrow, Minimum of 2 tests per source
		USCS Classification	ASTM D-2487	Approved Off-site Geotechnical Lab - TBD	1 test per 2,500 CY of borrow, Minimum of 2 tests per source
		Moisture Content	ASTM D-2216	Approved Off-site Geotechnical Lab - TBD	1 test per 1,000 CY of borrow, Minimum of 2 tests per source
Bedding Layer/Gas Venting Layer	02301/3.2	Compaction Characteristics of Soil Standard Proctor Modified Proctor	ASTM D-698 ASTM D-1557	Approved Off-site Geotechnical Lab - TBD	1 test per 5,000 CY of borrow, Minimum of 2 tests per source
		In-place Density by Nuclear Methods	ASTM D-2922	Approved Off-site Geotechnical Lab - TBD	9 tests per acre per lift
		Rapid Moisture Content	ASTM D-3017	Approved Off-site Geotechnical Lab - TBD	9 tests per acre per lift
	02301/3.3	Atterberg Limits	ASTM D-4318	Approved Off-site Geotechnical Lab - TBD	1 test per 1,000 CY of borrow, Minimum of 2 tests per source
		Particle Size Analysis	ASTM D-422	Approved Off-site Geotechnical Lab - TBD	1 test per 2,500 CY of borrow, Minimum of 2 tests per source
		USCS Classification	ASTM D-2487	Approved Off-site Geotechnical Lab - TBD	1 test per 2,500 CY of borrow, Minimum of 2 tests per source
		Moisture Content	ASTM D-2216	Approved Off-site Geotechnical Lab - TBD	1 test per 1,000 CY of borrow, Minimum of 2 tests per source
		Hydraulic Conductivity	ASTM D-5084	Approved Off-site Geotechnical Lab - TBD	1 test per 5,000 CY of borrow, Minimum of 2 tests per source
Barrier Protection Layer	02302/3.2	Compaction Characteristics of Soil Standard Proctor Modified Proctor	ASTM D-698 ASTM D-1557	Approved Off-site Geotechnical Lab - TBD	1 test per 5,000 CY of borrow, Minimum of 2 tests per source
		In-place density by Nuclear Methods	ASTM D-2922	Approved Off-site Geotechnical Lab - TBD	9 tests per acre per lift
		Rapid Moisture Content	ASTM D-3017	Approved Off-site Geotechnical Lab - TBD	9 tests per acre per lift
	02302/3.3	Particle Size Analysis	ASTM D-422	Approved Off-site Geotechnical Lab - TBD	1 test per 2,500 CY of borrow, Minimum of 2 tests per source
		Atterberg Limits	ASTM D-4318	Approved Off-site Geotechnical Lab - TBD	1 test per 1,000 CY of borrow, Minimum of 2 tests per source

Notes: Additional tests will be performed when material characteristics change.
ASTM - American Society for Testing and Materials
AASHTO - American Association of State Highway and Transportation Officials

APPENDIX F

TESTING PLAN LOG

LANDFILL 1 - Landfill Cover and Groundwater/Leachate Treatment Building and System

DFOW to be Tested	Specification Section/ Paragraph	Test Name	Test Procedure to be used	Person/Facility Responsible for Testing	Test Frequency
Barrier Protection Layer	02302/3.3	USCS Classification	ASTM D-2487	Approved Off-site Geotechnical Lab - TBD	1 test per 2,500 CY of borrow, Minimum of 2 tests per source
		Moisture Content	ASTM D-2216	Approved Off-site Geotechnical Lab - TBD	1 test per 1,000 CY of borrow, Minimum of 2 tests per source
		Hydraulic Conductivity	ASTM D-5084	Approved Off-site Geotechnical Lab - TBD	1 test per 5,000 CY of borrow, Minimum of 2 tests per source
Geomembrane	02372/2.2.1	Interface Friction Testing			
		- Bedding Layer/Smooth VFPE	ASTM D-5321	Approved Off-site Geotechnical Lab - TBD	2 tests prior to construction
		- Smooth VFPE Membrane/Geocomposite	ASTM D-5321	Approved Off-site Geotechnical Lab - TBD	2 tests prior to construction
		- Bedding Layer/Textured VFPE Membrane	ASTM D-5321	Approved Off-site Geotechnical Lab - TBD	2 tests prior to construction
		- Textured VFPE Membrane/Geocomposite	ASTM D-5321	Approved Off-site Geotechnical Lab - TBD	2 tests prior to construction
		- Geocomposite/Barrier Protection Layer	ASTM D-5321	Approved Off-site Geotechnical Lab - TBD	2 tests prior to construction
	02372/2.2.2	Manufacturing, Sampling & Testing			
		- Resin Materials		Manufacturer in accordance with their QC Manual	
		- Geomembrane Sheets		Manufacturer in accordance with their QC Manual	
		- Multi-Axial Tensile Test	ASTM D-5617	Manufacturer	1 per 200,000 square feet
	02372/3.3.1	Field Seaming - Trial			
		- Trial Seams		Conti Env. Or qualified installer	1 per day 36" L x 20" W
		- Shear Strength Test	Field Tensiometer	Conti Env. Or qualified installer	5 per day from Field Trial
		- Peel Adhesion Test	Field Tensiometer	Conti Env. Or qualified installer	5 per day from Field Trial
	02372/3.3.3.1	Non-Destructive Field Seam Testing			
		- Vacuum Box Testing	Field Devices	Conti Env. Or qualified installer	Over entire Length of Seam
		- Pressure Testing	Field Devices	Conti Env. Or qualified installer	Over entire Length of Seam
	02372/3.3.3.2	Destructive Field Seam Testing(In the Field)		Conti Env. Or qualified installer	Every 500 lf of seam per welding machine.
		- Shear Strength Test	Field Tensiometer	Conti Env. Or qualified installer	5 per every sample
		- Peel Adhesion Test	Field Tensiometer	Conti Env. Or qualified installer	5 per every sample

Notes: Additional tests will be performed when material characteristics change.
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APPENDIX F

TESTING PLAN LOG

LANDFILL 1 - Landfill Cover and Groundwater/Leachate Treatment Building and System

DFOW to be Tested	Specification Section/ Paragraph	Test Name	Test Procedure to be used	Person/Facility Responsible for Testing	Test Frequency
Geomembrane	02372/3.3.3.2	Destructive Field Seam Testing (Off-Site)			
		- Shear Strength Test	ASTM-D4437	Approved Independent Lab	5 per every sample
		- Peel Adhesion Test	ASTM-D4437	Approved Independent Lab	5 per every sample
Geocomposite	02373/2.4	Sampling and Testing			
		- transmissivity		Approved Independent Lab	minimum of two samples
Geotextile	02374/3.1.1	Quality Assurance Samples	ASTM-D4759	Sample collected by Conti, then tested by approved indep. laboratory	1 per 100,000 sf
Topsoil & Seeding	02921/2.2	Topsoil			
		- Organic Content	AASHTO - T194	Approved Independent Lab	1 per 20,000 CY
		- Gradation	ASTM D-422	Approved Independent Lab	1 test per 2,500 CY Minimum of 2 tests per source
		- pH		Approved Independent Lab	1 per 20,000 CY
		- Soluble Salts		Approved Independent Lab	1 per 20,000 CY
Install Leachate Collection Trench		Particle Size Analysis	ASTM D-422	Approved Off-site Geotechnical Lab - TBD	1 test per source
- Stone					
Site work for Leachate Treatment Building					
- Stone Subbase		Particle Size Analysis	ASTM D-422	Approved Off-site Geotechnical Lab - TBD	1 test per source
		In-place density by Nuclear Methods	ASTM D-2922	Conti Environmental	2 tests per lift
- Concrete		Concrete mix design	N/A	Approved Independent Lab	1 per project/source
		Concrete Air Content		Approved Independent Lab	1 per pour day
		Concrete Slump Test		Approved Independent Lab	TBD
		Concrete Cylinder Breaks		Approved Independent Lab	TBD

Notes: Additional tests will be performed when material characteristics change.
ASTM - American Society for Testing and Materials
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APPENDIX F

TESTING PLAN LOG

LANDFILL 1 - Landfill Cover and Groundwater/Leachate Treatment Building and System

DFOW to be Tested	Specification Section/ Paragraph	Test Name	Test Procedure to be used	Person/Facility Responsible for Testing	Test Frequency
Installation of Pre-engineered building Mechanical Systems					
- Tanks		Water Tightness		Installation vendor (TBD)	1 per tank
- Piping		Pressure Testing		Installation vendor (TBD)	1 per system

Notes: Additional tests will be performed when material characteristics change.
ASTM - American Society for Testing and Materials
AASHTO - American Association of State Highway and Transportation Officials

CQC TEST REPORT LIST

CQC REPORT#_____ SH_____ OF _____ DATE:_____

CONTRACTOR:_____ CONTRACT #:_____

PROJECT TITLE:_____ LOCATION:_____

SPEC REF OR DWG#	TYPE OF TEST	DATE PERFORMED	RESULTS	REMARKS

NOTE: THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK CQC TESTING.PROVIDE ATTACHMENTS AS REQUIRED.

LIST OF OUTSTANDING DEFICIENCIES

SH ____ OF ____ DATE: _____

PROJECT TITLE: _____ CONTRACTOR: _____

LOCATION: _____ CQC REPORT #: _____ CONTRACT #: _____

SPEC REF OR DWG #	LOCATION ON PROJECT	DESCRIPTION OF DEFICIENCY	DATE FOUND	DATE TO BE CORRECTED	DATE CORRECTED	REMARKS

NOTE: THIS FORM SHALL BE USED BY THE CONTRACTOR TO TRACK OUTSTANDING CONSTRUCTION DEFICIENCIES

Conti Environmental, Inc.

DAILY QUALITY CONTROL REPORT

Daily Report No.: Date:
Contract No.:

Project Title and Location:
Weather: _____ Precipitation: _____ Temp: _____ Min._____ Max._____

1. Contract/Subcontractors and Area of Responsibility:

Number:	Trade:	Hours:	Employer	Location/Description of Work:

2. Operating Plant or Equipment. (Not hand tools)

Plant/Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

3. Work performed today: (Indicate location and description of work performed by prime and/or subcontractors by letter in table above).

4. Results of control activities: (Indicate whether P-Preparatory, I-Initial, or F-Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1B, respectively. When network analysis system is used, identify work by use of I-J numbers.)

5. Test performed as required by plans and/or specifications:

6. Material Received:

7. Submittals Reviewed:

(a) Submittal No.	(b) Spec/Plan Reference	By Whom	(d) Action

8. Offsite surveillance activities, including action taken:

9. Job Safety: (Report violations; corrective instructions given; corrective actions taken).

10. Remarks: (Instructions received or given. Conflict(s) in Plans and/or Specifications).

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

Authorized CQC Rep at Site Date

PERMANENT MATERIALS REPORT

Project: _____

Location: _____

Materials: _____

_____

_____

Supplier: _____

Subcontractor: _____

Freight Line: _____

Damage Report: _____

_____

_____

_____

_____

_____

Inspected By: _____

_____
Quality Control Systems Manager

Conti Environmental, Inc.

Report No. _____

Date _____

TRIP REPORT

COMPONENT

VENDOR

SPEC. REF. _____

PURPOSE OF TRIP _____

_____

_____

CONTACT _____

PERSONNEL PRESENT _____

_____

_____

SUMMARY _____

_____

_____

_____

_____

_____

_____

Quality Control Systems Manager

DEFICIENCY REPORT NO.

Contractor: _____

Date: _____ Contract No.: _____

Location: _____

Reference Specifications Paragraph: _____

Reference Contract Drawing Sheet No.: _____

Deficiency: _____

_____

_____

_____

_____

Corrective Action: _____

_____

_____

_____

_____

Acknowledged: _____

_____ _____

Area Representative & Date Corps of Engineers Field Representative

CONCRETE SUMMARY

Report No. _____

Date _____

Test	Date	Class	Field Spec	7 Day	28 Day	Other	Location & Remarks

DENSITY TESTING SUMMARY LOG

DFOW TESTED _____
DATE _____
TESTED BY _____

Test Type	Depth Elevation	Max. Dry Density	O.M.C. %	Dry Density	Moisture %	Compact %	Soil Type	Spec. Reg.	Passed Failed	Remarks

CONTI ENVIRONMENTAL, INC.

NON-COMPLIANCE IDENTIFICATION / CORRECTIVE ACTION REPORT

Report No._____

Identification of Unsatisfactory/Non-compliant Condition

1. Condition is: Unsatisfactory Non-compliant (Circle appropriate term)
2. Condition identified by (name & title): _____
3. Date and time condition identified: ___/___/___ ; ___ : ___ AM PM
4. DFOW/WBS ID affected: _____
5. Description of condition: _____

Notification of Client and Project Management Staff

6. Name of client representative notified: _____
7. Date and time notified: ___/___/___ ; ___ : ___ AM PM
8. Name(s) of Project Management Staff notified:
   - 8A. Name: _____ : Title: _____
   - 8B. Name: _____ : Title: _____
   - 8C. Name: _____ : Title: _____

Proposed Corrective Action

9. Description of Proposed Corrective Action: _____

Client Approval of Proposed Corrective Action (complete if approval required)

10. The proposed corrective action(s) have been reviewed and are approved for use by: _____ on: _____

Verification of Implementation of Proposed Corrective Action

11. The undersigned has verified that the Corrective Actions indicated above have been implemented and the Unstatisfactory/Non-compliant condition no longer exists. Verfied by: _____ on: _____

CQCSM

Closeout of Unsatisfactory/Non-comformant Condition Report

12. The conditions necessitating this report have been satisfactorily resolved and the status of this report is considered as closed out.

by: _____ on: _____

CQCSM

LANDFILL 1- LANDFILL COVER AND GROUNDWATER/LEACHATE TREATMENT
NON-COMPLIANCE IDENTIFICATION/CORRECTIVE ACTION TRACKING LOG

Non-conformance Report #	DFOW Involved	Date Identified	Date Corrected	Correction Inspected/Verified by	Date Verified