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NAS CECIL FIELD, FL
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CONSTRUCTION COMPLETION REPORT FOR INSTALLATION OF BIOSPARGE/VAPOR COLLECTION SYSTEM AT DAY TANK 1 NAS CECIL FIELD FL

12/1/2001

CH2MHILL CONSTRUCTORS INC

Construction Completion Report
Installation of Biosparge/ Vapor Collection System at Day Tank 1

Naval Air Station Cecil Field
Jacksonville, Florida

Revision No. 00

Contract No. N62467-98-D-0995
Contract Task Order No. 0002

Prepared by:

115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346

Submitted to

U.S. Naval Facilities Engineering Command Southern Division

December 2001

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115 Perimeter Center Place, N.E.
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Atlanta, GA 30346

December 2001

Prepared/Approved By:

Samuel M. Ross, Project Manager _____ Date

Approved By:

R. Scott Newman, Program Manager _____ Date

Client Acceptance:

U.S. Navy Responsible Authority _____ Date

CERTIFICATE OF COMPLETION

CH2M HILL Constructors, Inc., attests that, to the best of its knowledge and belief, the Installation of a Biosparge/Vapor Collection System at Naval Air Station Cecil Field, Jacksonville, Florida, delivered under Contract No. N62467-98-D-0995, Contract Task Order No. 0002, has been completed, inspected, and tested, and is in compliance with the contract.

_____ _____

Project Quality Control Manager Date

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Acronyms

ABB-ES	ABB Environmental Services, Inc.
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
bls	below land surface
CCI	CH2M HILL Constructors, Inc.
CFR	Code of Federal Regulations
CTO	Contract Task Order
EESI	Engineered Environmental Solutions, Inc.
OES	Omega Environmental Services, Inc.
GAC	granular activated carbon
GIS	Geographic Information System
J.A. Jones	J.A. Jones Environmental Services Company
µg/L	micrograms per liter
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
O&M	operation and maintenance
OES	Omega Environmental Services
OVA	organic vapor analyzer
PCB	polychlorinated biphenyl
ppm	parts per million
PPE	personal protective equipment
PVC	polyvinyl chloride
psi	pounds per square inch
QC	quality control
RAP	Remedial Action Plan
SVE	soil vapor extraction
SVOC	semi-volatile organic compound
TCLP	toxicity characteristic leaching procedure
USEPA	United States Environmental Protection Agency
VCS	vapor collection system
VOC	volatile organic compound

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI), with J.A. Jones Environmental Services Company (J.A. Jones), has been contracted by the Department of the Navy, Southern Division, Naval Facilities Engineering Command (Southern Division, NAVFAC), to prepare this Construction Completion Report for work performed by CCI/J.A. Jones at Day Tank 1 located at Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. This work was performed under Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0002 and in accordance with the management approach outlined in the CCI Contract Management Plan (CCI, July 1998), the NAS Cecil Field Basewide Work Plan, Revision No. 1 (CCI, November 1998), and the CTO No. 0002 Work Plan Addendum No. 3 (CCI, January 2000).

The objective of this report is to provide documentation of the construction activities associated with installation of a biosparge/vapor collection system (VCS) at Day Tank 1, NAS Cecil Field, Jacksonville, Florida.

1.1 Project Scope and Construction Objectives

On April 12, 1999, CCI/J.A. Jones received work authorization from Southern Division, NAVFAC to complete the following scope of work associated with the biosparge/VCS at Day Tank 1 at NAS Cecil Field. Additional details on the proposed scope of work are included in the CTO No. 0002 Work Plan Addendum No. 3 (CCI, January 2000).

- Identification of all aboveground and underground utilities
- Installation of sixteen biosparge wells to a depth of 35 feet below land surface (bls), eight vapor extraction wells to a depth of 18.5 feet bls, traffic bearing vaults, and associated piping and instrumentation
- Construction of a treatment system compound
- Installation of the biosparge equipment, including an air compressor, centrifugal separating filter, oil coalescing filter, and associated piping, instrumentation and controls
- Installation of the VCS equipment, including a regenerative vacuum blower and motor, inlet filter, discharge silencer, moisture separator equipped with an automatic transfer pump, holding tank for the moisture separator discharge, and two activated carbon units
- Start-up and optimization of treatment system operation
- Preparation of an operation and maintenance (O&M) Manual, Construction Completion Report, and as-built construction drawings
- Site restoration

- Operation, maintenance, and monitoring of the treatment system for a period of 12 months.

1.2 Site History

The Day Tank 1 site is located at NAS Cecil Field, approximately 1/8 miles south of the "A" Avenue gate on Jet Road. The site formerly contained a 200,000-gallon aboveground storage tank (AST), piping, and associated equipment to supply jet fuel to the high speed refuelers located on the flightline. It was reported that numerous spills occurred at the site over the course of the operation of the fuel delivery system. ABB Environmental Services, Inc. (ABB-ES) completed a contamination assessment for the facility in 1996, which documented the presence of petroleum-contaminated soil and groundwater at the site (ABB-ES, 1997). A Remedial Action Plan (RAP) was subsequently developed by ABB-ES in 1997 for the excavation of 20,000 tons of petroleum-contaminated soil and the installation of a biosparging and VCS treatment system to address the contaminated groundwater at the site. The AST was removed and 24,000 tons of contaminated soil were excavated in November 1999 by CCI/J.A. Jones.

Site assessment activities indicated the chemicals of concern in the groundwater as listed in Table 1-1.

TABLE 1-1
Chemicals of Concern in Groundwater at Day Tank 1

Chemical of Concern	Maximum Concentration (µg/L)
Benzene	520
Toluene	370
Ethylbenzene	1,000
Xylenes	2,100
Total Naphthalenes	5,600
Naphthalene	1,200
1-Methylnaphthalene	2,500
2-Methylnaphthalene	1,900

Based upon September 1996 data provided in the RAP (ABB-ES, 1997).
µg/L = micrograms per liter

1.3 Chronology of Events

The chronology of events for the construction at the site is listed in Table 1-2. Specific details describing the construction activities are found in Section 4.0 of this report.

TABLE 1-2
Construction Sequence Summary

Event	Date
Mobilization	January 10, 2000
Pre-construction Survey	January 5, 2000
Biosparge/Vapor Extraction Well Installation	January 11 - 19, 2000
Construction of Equipment Pad	January 20 - February 2, 2000
Trenching and Pipe Installation	January 18 - February 3, 2000
Biosparge/Vapor Extraction Well Vault Installation	January 18 - February 9, 2000
BP/VCS System Installation	February 9 - 28, 2000
BP/VCS System Startup	February 29 – March 27, 2000
Site Restoration	February 29, 2000
Post-Construction Survey	August 29, 2000
Waste Characterization Sampling	January 20, 2000; January 8, 2000
Transportation and Disposal of Wastes	February 14, 2000; May 12, 2000
Demobilization	May 12, 2000

1.4 Problems Encountered

No significant problems were encountered during the construction activities at Day Tank 1.

2.0 Performance Standards and Construction Quality Control

The following quality controls were implemented during the course of the project and are described in detail in this section:

- Field observation
- Site preparation
- Surveying
- Well installation
- Trenching and pipe installation
- Concrete foundation installation
- Remediation system compound construction
- System equipment installation
- System startup
- Equipment decontamination
- Waste disposal characterization sampling and analysis
- Waste profile packages
- Transportation and disposal of contaminated materials

2.1 Field Observation

CCI/J.A. Jones provided oversight of all field operations throughout the course of the project. CCI/J.A. Jones field oversight staff included a project superintendent, a quality control (QC) manager, and a site health and safety specialist. Detailed records of subcontractor activities were maintained in field logbooks and site field records. Photographs of site activities were collected throughout the project and representative photographs are provided in Appendix A.

2.2 Site Preparation

Site preparation activities conducted by Omega Environmental Services, Inc. (OES), the prime subcontractor, included establishing site controls and conducting utility clearances. Utility clearances were obtained through coordination with the Sunshine State One Call and the facility operation and maintenance contractor for underground utilities.

2.3 Surveying

The biosparge/vapor extraction well and VCS equipment compound locations were surveyed by Holland and Bassett Surveyors, Inc. using existing monitoring wells at the site as reference points. A site map is provided in Figure 2-1. The land surveyor certification is provided in Appendix B.

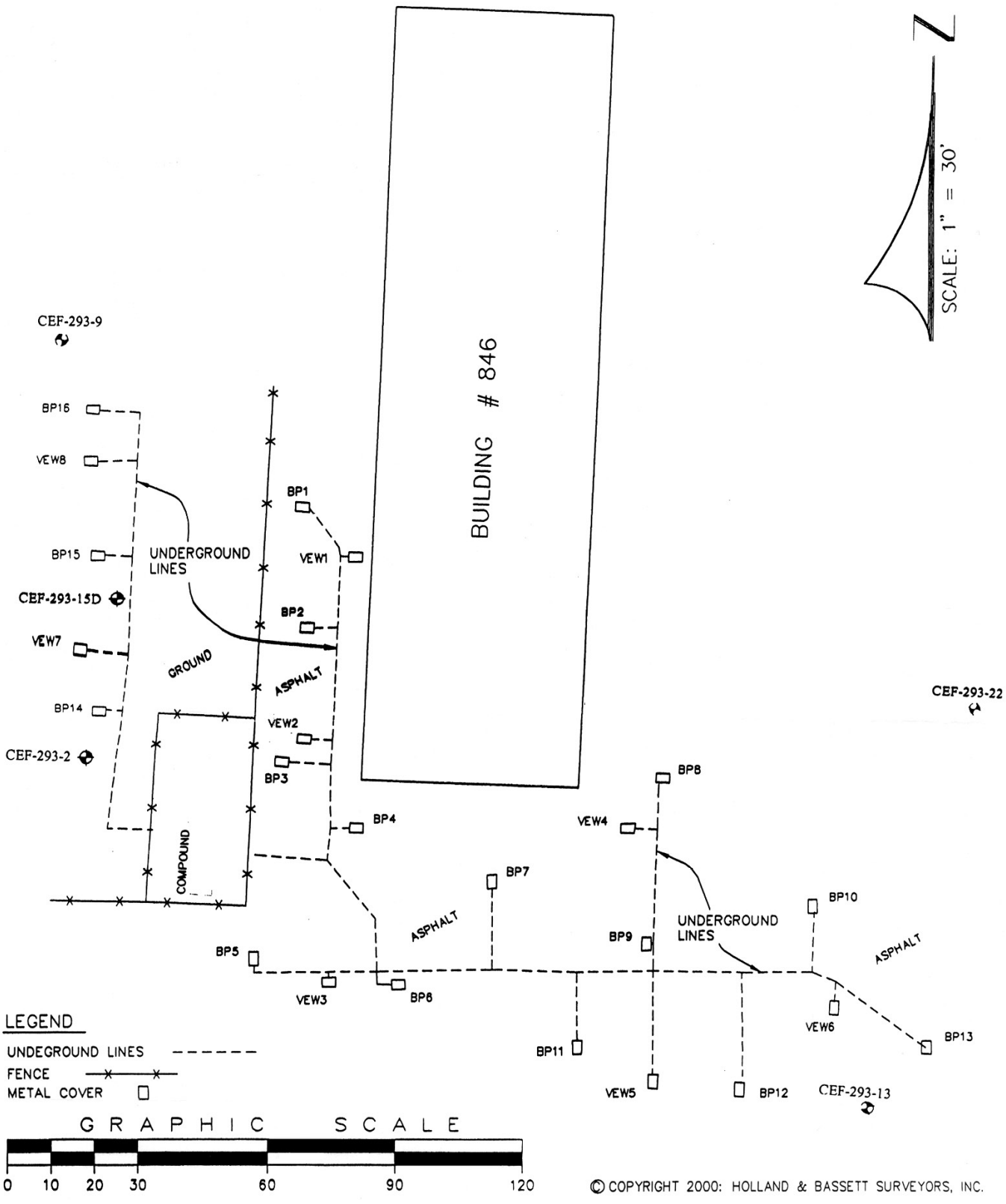


Figure 2-1
Site Map
Day Tank 1 Site
NAS Cecil Field
Jacksonville, Florida

2.4 Well Installation

Prior to well installation, manufacturers' catalog data for all well materials were reviewed and approved by the CCI/J.A. Jones Project QC Manager. All well materials utilized were inspected upon receipt to the job site and were determined to be in compliance with the approved submittals. Each well was installed by TransAmerican, Inc., a certified well driller, in accordance with the approved CTO No. 0002 Work Plan Addendum No. 3 and the total well and screen depths, and well materials and depths verified. The well driller certification is provided in Appendix B. The generated drill cuttings were containerized in a 20 cubic yard roll-off box and development water was containerized in a portable 1,200-gallon AST, for characterization and offsite transportation and disposal. Additional details for well installation are provided in Section 4.0. Boring Logs/Well Construction Diagrams are provided in Appendix C.

2.5 Trenching and Pipe Installation

Prior to trenching and pipe installation at Day Tank 1, manufacturers' catalog data for all pipe and well vault materials were reviewed and approved by the CCI/J.A. Jones Project QC Manager. All piping and well vault materials utilized were inspected upon receipt to the job site and were in compliance with the approved submittals. Trenching activities were conducted by OES and lower tier subcontractor Engineered Environmental Solutions, Inc. (EESI) in accordance with the approved CTO No. 0002 Work Plan Addendum No. 3. The locations and depths of each trench were verified daily during trenching activities. All piping and well vault materials were installed in accordance with the manufacturers' recommendations, the approved submittals, and the approved CTO No. 0002 Work Plan Addendum No. 3. Based upon organic vapor analyzer (OVA) screening which indicated that all excavated soil was below the 10 parts per million (ppm) action criteria, native soil was used for pipe bedding as the native soil was sandy and free from debris. All underground piping was successfully pressure-tested prior to backfilling with an applied air pressure of 100 pounds per square inch (psi) for 1 hour.

The trenches for pipe and well vault installation at the site were backfilled and restored by OES and EESI in accordance with the approved submittals and CTO No. 0002 Work Plan Addendum No. 3. Trenches were backfilled in 1-foot lifts with the excavated material and machine-compacted. Trenches in asphalt areas were backfilled with excavated material to 12 inches bls, followed by limerock subgrade to elevation of the asphalt surface to be restored. The backfill and limerock in the asphalt areas were machine-compacted and representative compaction tests performed to verify 95 percent of American Society of Testing and Materials (ASTM) D698 compaction. Compaction test results are provided in Appendix D. Certifications of the geotechnical laboratory, Ellis and Associates, are provided in Appendix B. The trenches in non-asphalted areas were graded to provide positive drainage, seeded, fertilized, and mulched using hay to retain moisture. Excess soil not utilized was spread at the site in accordance with approved CTO No. 0002 Work Plan Addendum No. 3, based upon OVA screening results of less than 10 ppm. Additional details for trenching and pipe/well vault installation are provided in Section 4.0.

2.6 Concrete Foundation Construction

The system equipment concrete foundation was constructed by OES and EESI in accordance with the approved submittals and CTO No. 0002 Work Plan Addendum No. 3. A compaction test was performed on the native soil below the foundation to verify 95 percent of ASTM D698 compaction. Compaction test results are provided in Appendix D. Certifications of the geotechnical laboratory, Ellis and Associates, are provided in Appendix B.

Manufacturers' catalog data for all concrete foundation materials were submitted to the CCI/J.A. Jones Project QC Manager for approval. All foundation materials utilized were inspected upon receipt to the job site and were found to be in compliance with the approved submittals. Prior to concrete placement, the formwork and wire mesh were inspected and verified. During concrete placement, concrete compressive strength, slump, and air entrainment tests were performed to verify the specified mix design complied with the specifications. The slump tests were performed onsite; however, the compressive strength and air entrainment tests were performed by an offsite geotechnical laboratory, Ellis and Associates. The results from the concrete testing are provided Appendix D. The width, height, thickness, and finish of the concrete foundations were inspected and approved by the CCI/J.A. Jones Project QC Manager following placement. Additional details for concrete foundation installation are provided in Section 4.0.

2.7 Remediation System Canopy Construction

Prior to remediation system canopy construction, manufacturer's catalog data for all construction materials were submitted to CCI/J.A. Jones for approval. All construction materials utilized were inspected on receipt to the job site and were within compliance of the approved submittals. The progress of building construction was inspected daily by the CCI/J.A. Jones Site Superintendent, Project QC Manager, and Site Health and Safety Specialist for quality and stability. The remediation system canopy was constructed by OES and EESI in accordance with the approved submittals, manufacturers' instructions, standard industry practice, and the approved CTO No. 0002 Work Plan Addendum, Revision No. 3. Additional details for remediation system building construction are provided in Section 4.0.

2.8 System Equipment Installation

Prior to system equipment installation, manufacturers' catalog data for all system equipment was approved by the CCI/J.A. Jones Project QC Manager. All system equipment utilized was inspected upon receipt to the job site and was found to be in compliance with the approved submittals. System equipment installation was conducted by OES and EESI in accordance with the manufacturers' recommendations, the approved submittals and CTO No. 0002 Work Plan Addendum No. 3. All system equipment and piping was pressurized and any noted leaks were corrected.

Prior to the electrical connections for the system equipment, manufacturer's catalog data for all electrical materials were submitted to the CCI/J.A. Jones Project QC Manager for approval. All electrical materials utilized were inspected upon receipt to the job site and

were found to be in compliance with the approved submittals. Electrical installation was conducted by OES and C and C Powerline in accordance with the manufacturers' recommendations, the National Electric Code, the approved submittals, and CTO No. 0002 Work Plan Addendum No. 3. Following electrical installation, each system was tested to ensure the proper voltage was being delivered to the system equipment, and each system component was tested for proper rotation. All as-built drawings were provided in the O&M Manual, Biosparging and Vapor Collection System, Day Tank 1 Site (CCI, 2001), submitted under separate cover.

2.9 System Startup

System startup was performed in accordance manufacturers' instructions and the approved CTO No. 0002 Work Plan Addendum No. 3. Each fail-safe and all system logic were tested. System startup data is provided in Quarterly O&M Reports for Day Tank 1, submitted under separate cover.

2.10 Equipment Decontamination

All equipment was decontaminated prior to removal from the site. In addition, the drill rig and equipment was decontaminated with a steam cleaner between each well installation. All wastes generated by decontamination activities were containerized in a 1,200-gallon AST for waste characterization and offsite transportation and disposal. Decontamination of personnel and personal protective equipment (PPE) was performed in accordance with the site health and safety plan and applicable provisions of 29 Code of Federal Regulations (CFR) 1910.120. Upon completion of decontamination, the CCI/J.A. Jones Project QC Manager inspected all equipment prior to demobilization.

2.11 Waste Disposal Characterization Sampling and Analysis

2.11.1 Contaminated Soil and Debris

For solid waste characterization, the drill cuttings were sampled in accordance with the approved CTO No. 0002 Work Plan Addendum No. 1 or 3, and analyzed by Severn Trent Laboratories, Inc., a Navy-approved laboratory, for the following parameters:

- Toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) by U.S. Environmental Project Agency (USEPA) Method 1311/8260B
- TCLP semi-volatile organic compounds (SVOCs) by USEPA Method 1311/8270C
- TCLP metals by USEPA Method 1311/6010A/7470A
- TCLP herbicides by USEPA Method 8151
- TCLP pesticides by USEPA Method 8081A
- Polychlorinated biphenyls (PCBs) by USEPA Method 8082
- pH by SW 846, Chapter 7

- Ignitability – flash point by USEPA Method 1010
- Cyanide Reactivity by SW 846, Chapter 7
- Sulfide Reactivity by SW 846, Chapter 7

One composite soil sample, consisting of grab samples from six representative locations, was collected from the 20 cubic yard roll-off container. PPE and generated miscellaneous contaminated solid wastes were characterized based upon generator knowledge and disposed of with the soil from each site.

Analytical data collected for the disposal characterization of solid waste and media is presented with the applicable waste profile(s) in Appendix E.

2.11.2 Liquid Wastes, Development Water, and Decontamination Water

Liquid wastes included development and decontamination water, which was containerized in a temporary 1200-gallon aboveground storage tank at the site. For liquid waste characterization, the contaminated liquid wastes were sampled in accordance with the approved CTO No. 0002 Work Plan Addendum No. 3 and analyzed by Severn Trent Laboratories, Inc., a Navy-approved laboratory, for the following parameters:

- VOCs by USEPA Method 8260B
- SVOCs by USEPA Method 8270C
- PCBs by USEPA Method 8082
- Metals by USEPA Method 6010A/245.1
- Herbicides by USEPA Method 8151
- Pesticides by USEPA Method 8081A
- Corrosivity as pH by SW 846, Chapter 7
- Ignitability – flash point by USEPA Method 1010
- Cyanide Reactivity by SW 846, Chapter 7
- Sulfide Reactivity by SW 846, Chapter 7

One grab sample was collected from the portable AST at the site. Analytical data collected for the disposal characterization of liquid wastes is presented with the applicable waste profile(s) in Appendix E.

2.12 Waste Profile Packages

Prior to offsite disposal of any waste, a waste profile package for each wastestream was generated. The solid and liquid wastes were profiled as non-hazardous wastes. The completed waste profiles were received from the applicable disposal facilities and presented to the NAS Cecil Field Caretaker Site Officer for approval. Once approval was received, pre-printed manifests were generated and provided for signature. The pre-printed manifests were presented to the NAS Cecil Field Caretaker Site Officer for signature. The signed waste profiles, analytical data, and manifests are provided in Appendix E.

2.13 Transportation and Disposal of Contaminated Materials

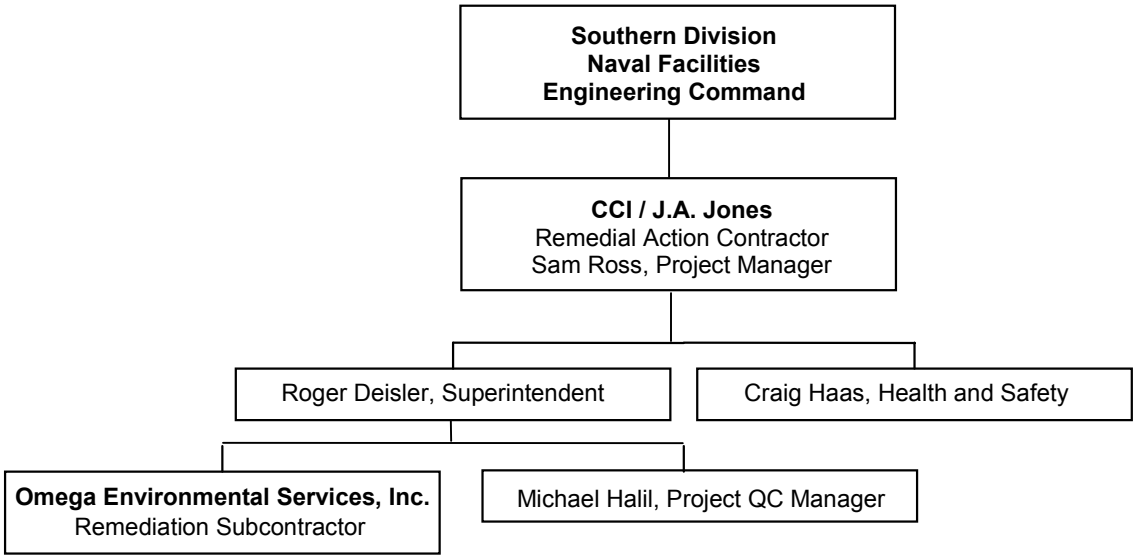
At the completion of the project, the 20 cubic yard roll-off container was picked up and transported by semi-truck and the contents of the 1200-gallon ASTs were evacuated and transported by a vacuum tanker truck for offsite disposal. A total of 12.58 tons of drill cuttings and PPE (Chesser Island Road Landfill in Jacksonville, Florida) and approximately 1,200 gallons of development/decontamination (Industrial Water Services, Inc. in Jacksonville, Florida) water were disposed. Prior to loading the wastes for transportation, each vehicle was inspected by the CCI/J.A. Jones Project QC Manager for integrity, cleanliness, and proper certifications/licenses. All manifests were signed by the NAS Cecil Field Caretaker Site Officer. The transportation and disposal log, copies of each disposal facility-signed manifest, and certificates of disposal are provided in Appendix E.

3.0 Construction Activities

3.1 Construction Participants

The Construction participants and their respective responsibilities for the project are discussed in this section. The primary construction participants are shown below in Figure 3-1.

FIGURE 3-1
Organization of Construction Participants



3.2 Summary of Construction Activities

The following sections describe the construction activities and schedule related to: surveying, well installation, trenching and pipe installation, system and compound installation, and system startup. All as-built drawings were provided in the O&M Manual (CCI, 2001).

3.2.1 Surveying

Pre-construction surveying activities were performed on January 5, 2000. Post-construction surveying activities were performed on August 29, 2000. Pre- and post-construction surveying was completed by Holland and Bassett Surveyors, Inc., who functioned as a lower-tier subcontractor to OES.

3.2.2 Well Installation

All wells were installed by Trans American, Inc., which functioned as a lower-tier subcontractor to OES. Sixteen biosparge wells and eight vapor extraction wells were

installed during the period of January 11 to January 19, 2000. The wells were installed using hollow stem auger drilling techniques. Each well location was post-holed to a depth of 4 feet bls prior to drilling. All of the wells were constructed with 2-inch diameter Schedule 80 polyvinyl chloride (PVC). For the biosparge wells, silica sand (20/30 grain) was placed to 1 foot above the top of the screen followed by a 2-foot thick bentonite seal. For the vapor extraction wells, silica sand (20/30 grain) was placed to one-half foot above the top of the screen followed by a one-half foot thick bentonite seal. The biosparge wells were installed to a depth of 35 feet bls with screened intervals from 32 to 35 feet bls and the vapor extraction wells were installed to a depth of 18.5 feet bls with screened intervals from 3 to 18 feet bls.

Each biosparge/vapor extraction well was fully developed until clear and completed with a 3-foot by 2-foot by 2-foot locking, galvanized steel, well vault placed within a 6-inch thick, 3,000 psi concrete pad.

3.2.3 Trenching and Pipe Installation

Trenching and underground pipe installation was completed by OES and EESI from January 18 to February 3, 2000. Trenching was completed with a backhoe to a depth of 2 feet bls with a trench width of 2 feet. All underground piping was constructed of 2-inch diameter Schedule 80 PVC. All piping within the well vaults was constructed of industrial rated rubber flexible air hose and/or Schedule 80 PVC.

Native soil was used for pipe bedding as the native soil was sandy and free from debris. All underground piping was pressure-tested to 100 psi for 1 hour prior to backfilling. Trenches were backfilled in 1-foot lifts with the excavated material and machine-compacted. Trenches in asphalt areas were backfilled with excavated material to 12 inches bls followed by limerock to subgrade elevation of the asphalt surface to be restored. The backfill and limerock in the asphalt areas were machine-compacted and representative compaction tests performed to verify 95 percent of American Society of Testing and Materials (ASTM) D698 compaction. Compaction test results are provided in Appendix D.

Excess soil not utilized was spread at the site based upon OVA screening methodology performed in accordance with CTO No. 0002 Work Plan Addendum No. 3 to verify that the material was clean.

3.2.4 System and Compound Installation

This section describes the remediation system and compound installation activities completed during implementation of the scope of work. The remediation system equipment pad was installed from January 20 to February 2, 2000. The remediation system equipment, electrical system and canopy installation was conducted from February 9 to 28, 2000. The system compound was installed by OES and EESI and consisted of a canopy covered, 6-inch thick, 3,000 psi strength, 30- by 15-foot concrete pad surrounded by a chain link fence. The remediation equipment was provided by EESI. The secondary electrical service was connected to the system by C and C Powerline, an OES lower-tier subcontractor, from a primary electrical service provided by the Jacksonville Electric Authority.

3.2.5 System Startup

The biosparge/VCS system startup was conducted by OES and EESI. The biosparge/VCS system was started on February 29, 2000. Remediation system startup activities and data are provided in the Quarterly Operations and Maintenance Reports for Day Tank 1, submitted under separate cover.

4.0 Final Inspection and Site Status Summary

No final inspection was conducted by the Navy; however, the CCI/J.A. Jones Project QC Manager inspected the sites for compliance with the approved CTO No. 0002 Work Plan Addendum No. 3.

4.1 Participants

The following individuals participated in the final inspection:

- CCI/J.A. Jones Project Superintendent
- CCI/J.A. Jones Project QC Manager
- OES Project Superintendent

4.2 Deficiencies

During the inspection, no items were noted for correction.

4.3 Resolution of Deficiencies

None required.

4.4 Site Status Summary

As outlined in the project scope and construction objectives, CCI/J.A. Jones has conducted the following activities at Day Tank 1, NAS Cecil Field, Jacksonville, Florida:

- Identification and avoidance of all aboveground and underground utilities
- Installation of sixteen biosparge wells to a depth of 35 feet bls, eight vapor extraction wells to a depth of 18.5 feet bls, traffic bearing vaults, and associated piping and instrumentation
- Construction of a treatment system compound
- Installation of the biosparge equipment, including an air compressor, a centrifugal separating filter, an oil coalescing filter, and associated piping, instrumentation and controls
- Installation of the VCS equipment, including a regenerative vacuum blower and motor, an inlet filter, a discharge silencer, a moisture separator equipped with an automatic transfer pump, a holding tank for the moisture separator discharge, and two activated carbon units
- Start-up and optimization of treatment system operation

- Preparation of an O&M Manual, Construction Completion Report, and as-built construction drawings
- Site restoration

In addition, CCI /J.A. Jones performed the following activities:

- Managed liquid and solid waste generated during remediation activities in an environmentally protective manner
- Conducted construction QC oversight and inspections and provided environmental and construction testing reports to document the remediation efforts

5.0 References

ABB Environmental Services, Inc. January 1997. Remedial Action Plan, Day Tank 1, Facility 293, Naval Air Station Cecil Field, Jacksonville, Florida.

CH2M HILL Constructors, Inc. November 1998. Basewide Work Plan, Revision No. 1, NAS Cecil Field, Jacksonville, Florida.

CH2M HILL Constructors, Inc. January 2000. CTO 0002 Work Plan Addendum, No. 3, Day Tank 1 Biosparge and Vapor Collection System Installation, NAS Cecil Field, Jacksonville, Florida.

CH2M HILL Constructors, Inc. August 2001. CTO 0002 Operation and Maintenance Manual, Biosparging and Vapor Collection System, Day Tank 1 Site, NAS Cecil Field, Jacksonville, Florida.

Appendix A

Site Photographs

Photos 1-2:	Biosparge/Vapor Extraction Well Installation in Progress
Photos 3-6:	Construction of Equipment Pad in Progress
Photos 7-12:	Trenching and Pipe Installation in Progress
Photos 13-15:	Canopy Construction in Progress
Photos 16-22:	Equipment Installation in Progress
Photo 23:	View of the Completed Fenced Compound for the Biosparge/Vapor Collection System

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

Photo 20

Photo 21

Photo 22

Photo 23

Appendix B

Miscellaneous Certifications

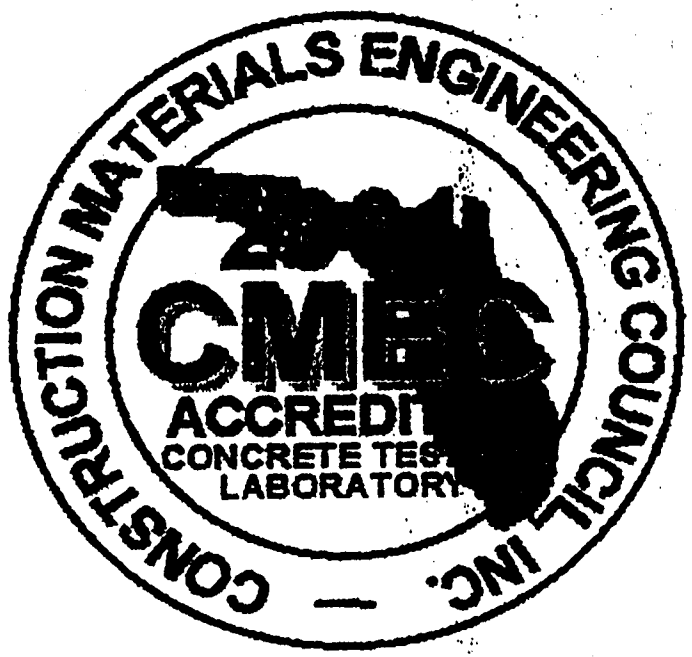
- Geotechnical Testing Laboratory and Personnel Certifications
- Well Driller Certification
- Surveyor License

CONSTRUCTION MATERIALS ENGINEERING COUNCIL, INC.

This is to certify that the below listed laboratory has been inspected and found to meet minimum established national standards for the inspection and testing of concrete and concrete products.

Ellis & Associates, Inc.
Jacksonville, Florida

Inspection details are documented in report 11022-01 dated 9/18/00. Reference document ASTM C-1077. Certification expires December 31, 2001 and is applicable only for the facility at the above given location.



CMEC Inspector

CMEC Chairman

[redacted]

CMEC

Construction Materials Engineering Council, Inc.

EVALUATION REPORT OF CONCRETE TESTING LABORATORY

REF: ASTM C-1077

REPORT #: 11022-01

INSPECTION DATE: 10/3/00

STATE AUTHORIZATION #: EB-998

Ellis & Associates, Inc.
7064 Davis Creek Road
Jacksonville FL 32256-

PHYSICAL LOCATION: 7064 Davis Creek Road
Jacksonville FL 32256-

PHONE: (904) 880-0960 FAX: (904) 880-0970

TYPE OF LAB: Commercial

STATUS CODES: S = Satisfactory (no action needed for accreditation); D = Deficiency (Corrective action needed for accreditation. See remarks section of this report.); R = Remarks (See remarks section of this report.); NA = Not applicable.

1) ORGANIZATION AND HUMAN RESOURCES

1A: Greg Edmonds — 1A STATUS: S
(Principal Officer of the Corporation)

1B: John Ellis, II — 1B STATUS: S
(Professional Engineer in Responsible Charge)
1B1: Florida (State of Registration) 1B2: 45202 (Registration #) 1B3: 18 (Years Experience)

1C: Bill Bowerman — 1C STATUS: S
(Supervising Laboratory Technician)
1C1: No (ACI Lab Tech Certified) 1C2: Yes (CMEC CCTT Certified) 1C3: 10 (Years Experience)

1D: Mike Gruber — 1D STATUS: S
(Supervising Field Technician)
1D1: Yes (ACI Field Tech Certified) 1D2: 20 (Years Experience)

1E: 20 — 1E STATUS: S
(Total # Field Testing Technicians Employed)
1E1: 17
(# ACI Certified)

1F: 2 — 1F STATUS: D1
(Total # Cylinder Testing Technicians Employed)

Report #: 11022-01

1F1: 1
(# CMEC CCTT Certified)

2) TEST METHODS AND PROCEDURES

2A: Field Testing Equipment
- 2A1: Sampling C-172-90 — 2A1 STATUS: S
  - 2A1.1: Covers for Wheel Barrows — 2A1.1 STATUS: S
- 2A2: Slump C-143-90a — 2A2 STATUS: S
  - 2A2.1: Dimensions Last Checked On: 9/1/00 — 2A2.1 STATUS: S
- 2A3: Unit Weight C-138-92 — 2A3 STATUS: S
  - 2A3.1: Platform Scale Last Calib.: — 2A3.1 STATUS: R1
  - 2A3.2: Bucket Last Calibrated: 9/1/00 — 2A3.2 STATUS: S
- 2A4: Air C-173-94a^{e1} or C-231-91b — 2A4 STATUS: S
  - 2A4.1: Volumetric Meter/Cup Last Calibrated: 9/6/00 — 2A4.1 STATUS: S
  - 2A4.2: Pressure Meter Last Calibrated: 9/1/00 — 2A4.2 STATUS: S
- 2A5: Cylinder Molds C-470-94 & C-31/31m-95 — 2A5 STATUS: S
  - 2A5.1: Three molds from each shipment inspected — 2A5.1 STATUS: S
- 2A6: Transportation of Specimens C-31/31m-95 — 2A6 STATUS: S
- 2A7: Temperature C-1064-86 (re-approved 1993) — 2A7 STATUS: S
  - 2A7.1: Thermometers Last Calib.: 9/30/00 — 2A7.1 STATUS: S

2B: Laboratory Testing Equipment
- 2B1: Curing Facilities - Moist Air Storage C-511-95 & C-31/31m-95 — 2B1 STATUS: D2
  - 2B1.1: MR Temp: 66 — 2B1.1 STATUS: S
    Recording Therm.: 70
  - 2B1.2: Moist Room Relative Humidity: 100% — 2B1.2 STATUS: S
- 2B2: Curing Facility - Water Storage C-511-95 & C-31/31m-95 — 2B2 STATUS: N/A
  - 2B2.1: H2O Temp: — 2B2.1 STATUS: N/A
    Recording Thermometer:
- 2B3: Capping Facilities C-617-94 — 2B3 STATUS: S
  - 2B3.1: Gouges/Grooves/Indentations in Capping Plate — 2B3.1 STATUS: D3
  - 2B3.2: Cap Planeness Equipment — 2B3.2 STATUS: S
  - 2B3.3: Capping Comp. Strength Tests: 9/20/00 — 2B3.3 STATUS: S
  - 2B3.4: Guide Bars/Alignment Devices — 2B3.4 STATUS: S
- 2B4: Concrete Testing Machine C-39-94/E-4-94 — 2B4 STATUS: S
  Make: Forney
  Serial #: 72091
  Ranges: 10 to 400 Kips
  Last Calibrated: 9/18/00
- 2B5: Sieve Analyses C-136-95a — 2B5 STATUS: S
- 2B6: Percent Finer Than #200 C-117-95 — 2B6 STATUS: S
- 2B7: Specific Gravity & Absorption C-127-88(1993)^{e1}/C-128-93 — 2B7 STATUS: S
- 2B8: Organic Impurities C-40-92 — 2B8 STATUS: S

2C: Laboratory Testing Procedures C-39-94
- 2C1: Specimen Capping — 2C1 STATUS: S
  - 2C1.1: Capping by CCTT Certified Technicians — 2C1.1 STATUS: S
  - 2C1.2: Record of Daily Check of Cap Planeness — 2C1.2. STATUS: S
- 2C2: Specimen Placement — 2C2 STATUS: S
- 2C3: Rate of Loading — 2C3 STATUS: S
- 2C4: Failure Load — 2C4 STATUS: S
- 2C5: Calculation — 2C5 STATUS: S
  - 2C5.1: Record of Daily Check of Cylinder Diameters — 2C5.1 STATUS: D1
- 2C6: Reporting — 2C6 STATUS: S
  - 2C6.1: Strength Test by CCTT Certified Technicians — 2C6.1 STATUS: D1

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2D: Compressive Strength with Unbonded Caps C-1231-93 — 2D1 STATUS: N/A
- 2D1: Tests to qualify unbonded capping system — 2D2 STATUS: N/A
- 2D2: Retainer surface planeness equipment — 2D3 STATUS: N/A
- 2D3: Round wire gage and straight edge — 2D4 STATUS: N/A
- 2D4: Records of pad use

3) QUALITY ASSURANCE PROGRAM & DOCUMENTATION
- 3A: Test Report Form — 3A STATUS: S
- 3B: Method of Specimen I.D. — 3B STATUS: S
- 3C: Quality Assurance Manual — 3C STATUS: S
- 3D: Reference Manuals
  - 3D1: FDOT STD Test Methods — 3D1 STATUS: S
  - 3D2: ASTM — 3D2 STATUS: S
  - 3D3: ACI 318-95 — 3D3 STATUS: S
  - 3D4: AASHTO
  - 3D4 STATUS: S
- 3E: Reference Programs — 3E STATUS: S
  - 3E1: Rating from Last Sieve: — 3E1 STATUS: R2
  - 3E2: Rating from Last Cylinders: — 3E2 STATUS: R2

4) OPTIONAL TEST METHODS
- 4A: ASTM C-157-93 Length Change of Hardened Hydraulic Cement, Mortar, and Concrete — 4A STATUS:
  - 4A1: Equipment — 4A1 STATUS:

- 4B: FM5-516 (9/94) Determining Low-levels of Chloride in Concrete and Raw Materials — 4B STATUS:
  - 4B1: Equipment
    - 4B1.1: Crushing and Pulverizing Apparatus — 4B1.1 STATUS:
    - 4B1.2: Analytical Scale — 4B1.2 STATUS:
    - 4B1.3: Hot Plate — 4B1.3 STATUS:
    - 4B1.4: Glassware — 4B1.4 STATUS:
    - 4B1.5: Filter Paper — 4B1.5 STATUS:
    - 4B1.6: Magnetic Stirrer and Teflon Stir Bar — 4B1.6 STATUS:
    - 4B1.7: 0.5 ml Dispenser and Brown Glass Bottle — 4B1.7 STATUS:
    - 4B1.8: Cl Ion or Silver/Sulfide Ion-Selective Electrode — 4B1.8 STATUS:
    - 4B1.9: PH/mVmeter — 4B1.9 STATUS:
    - 4B1.10: Gran's Plot Paper or FDOT Corrosion Research Lab Computer Program — 4B1.10 STATUS:
  - 4B2: Reagents
    - 4B2.1: 1:12 Nitric Acid Solution — 4B2.1 STATUS:
    - 4B2.2: 0.01n Silver Nitrate Solution — 4B2.2 STATUS:
    - 4B2.3: Low-Level Ionic Strength Adjuster (ISA) Solution — 4B2.3 STATUS:
  - 4B3: Quality Systems — 4B3 STATUS:

- 4C: ASTM C-939-94a Flow of Grout (Flow Cone Method) — 4C STATUS:
  - 4C1: Equipment
    - 4C1.1: Flow Cone — 4C1.1 STATUS:
    - 4C1.2: Stopwatch — 4C1.2 STATUS:

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4C2: Quality Systems
- 4C2.1: Calibration of Flow Cone — 4C2.1 STATUS:
- 4C2.2: Report Form — 4C2.2 STATUS:

4D: ASTM C-109-95 Compressive Strength of Cement Mortars — 4D STATUS:

4D1: Equipment
- 4D1.1: Cube Molds — 4D1.1 STATUS:
- 4D1.2: Tamper — 4D1.2 STATUS:
- 4D1.3: Saturated Limewater in Moist Room — 4D1.3 STATUS:

4D2: Quality Systems
- 4D2.1: Check of Cube Mold Dimensions — 4D2.1 STATUS:
- 4D2.2: Report Form — 4D2.2 STATUS:

4E: ASTM C-192/C-192m-95 Making and Curing Test Specimens — 4E STATUS:

4E1: Equipment
- 4E1.1: Mixer — 4E1.1 STATUS:
- 4E1.2: Slump, Air Content, UW, Temp — 4E1.2 STATUS:

4E2: Quality Systems — 4E2 STATUS:

4F: ASTM C-805-94 Rebound Number of Hardened Concrete — 4F STATUS:

4F1: Equipment
- 4F1.1: Rebound Hammer — 4F1.1 STATUS:
- 4F1.2: Abrasive Stone — 4F1.2 STATUS:
- 4F1.3: Test Anvil — 4F1.3 STATUS:

4F2: Quality Systems
- 4F2.1: Calibration — 4F2.1 STATUS:
- 4F2.2: Report Form — 4F2.2 STATUS:

4G: ASTM C-803-90 Penetration Resistance of Hardened Concrete — 4G STATUS:

4G1: Equipment
- 4G1.1: Driver Unit — 4G1.1 STATUS:
- 4G1.2: Probes or Pins — 4G1.2 STATUS:
- 4G1.3: Measurement Equipment — 4G1.3 STATUS:
- 4G1.4: Positioning Device — 4G1.4 STATUS:

4G2: Quality Systems
- 4G2.1: Calibration — 4G2.1 STATUS:
- 4G2.2: Report Forms — 4G2.2 STATUS:

4H: ASTM C-42-94 Obtaining and Testing Drilled Cores and Sawed Beams of Concrete — 4H STATUS:

4H1: Equipment
- 4H1.1: Core Drill — 4H1.1 STATUS:
- 4H1.2: Saw — 4H1.2 STATUS:
- 4H1.3: Caliper or PI Tape — 4H1.3 STATUS:
- 4H1.4: Scale — 4H1.4 STATUS:
- 4H1.5: Saturated Limewater in Moist Room — 4H1.5 STATUS:
- 4H1.6: 4" Capping Stand — 4H1.6 STATUS:

4H2: Quality Systems
- 4H2.1: Report Form — 4H2.1 STATUS:

4I: ASTM C-78-94 Flexural Strength of Concrete (Using simple beam with third point loading) — 4I STATUS:

4I1:Equipment

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4I1.1: Loading Apparatus	4I1.1 STATUS:
4I2: Quality Systems	
4I2.1: Report Form	4I2.1 STATUS:
4J: ASTM C-403/403m-95 Time of Setting of Concrete Mixtures by Penetration Resistance	4J STATUS:
4J1: Equipment	4J1 STATUS:
4K: ASTM C-496-96 Splitting Tensile Strength of Cylindrical Concrete Specimens	4K STATUS:
4K1: Equipment	
4K1.1: Supplementary Bar	4K1.1 STATUS:
4K1.2: Bearing Strips	4K1.2 STATUS:
4K2: Quality Systems	
4K2.1: Report Form	4K2.1 STATUS:
4L: ASTM C-131/535-89 Los Angeles Abrasion	4L STATUS:
4L1: Equipment	
4L1.1: Los Angeles Machine	4L1.1 STATUS:
4L1.2: Charges	4L1.2 STATUS:
4L2: Quality Systems	
4L2.1: Report Form	4L2.1 STATUS:
4M: Other	4M STATUS:

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) REMARKS AND/OR DEFICIENCIES

REMARKS

R1: This calibration was not available for review.
R2: The results of the latest reference testing program are not yet available.
R3:
R4:
R5:

DEFICIENCIES

D1: Les than 50 percent of the cylinders are being tested by certified personnel.
D2: The moist room was to cold. Also, the calibration of the recording thermometer needs to be verified.
D3: The bottom bearing surface did not meet the planeness tolerance.
D4:
D5:
D6:
D7:
D8:
D9:
D10:
D11:
D12:
D13:
D14:
D15:
D16:

Report #: 11022-01

This inspection was performed by the inspector signing below. It is my opinion that on this date it represents a true representation of those items observed. The reference specification for this inspection was ASTM C-1077. A copy of this report will be on file at:

CMEC
Construction Materials Engineering Council, Inc.
3030 Dade Ave, Suite 100, Orlando, FL 32804
407-898-1115 FAX: 407-898-1445

It is requested that the engineer in responsible charge respond in writing to all deficiencies within 30 days of the date of this report. This response should be sent to CMEC at the address above. Records of all corrections of deficiencies will be maintained at the CMEC offices. Inspector approval of the corrective action taken will result in accreditation of the Laboratory for calendar year 1999.

INSPECTOR: Stephen L Sonnenfeld (Please print name) INSPECTOR SIGNS: _____

SIGNED ON: 4 Oct 2000

It is my understanding that this report is in part based on information provided by my firm. To the best of my knowledge all documents and other information supplied by my organization during this inspection are factual. Also, I understand it is our responsibility to make whatever corrections are noted and/or respond in writing within 30 days from the date of this report, to the CMEC offices at the above listed address.

NAME: John E. Ellis (Laboratory Representative - Please print) SIGNATURE: _____

SIGNED ON: 10/3/2000

SJR WATER MANAGEMENT DISTRICT

Henry Dean, Executive Director
John R. Wehle, Assistant Executive Director

POST OFFICE BOX 1429 PALATKA, FLORIDA 32178-1429
TELEPHONE 904-329-4500 SUNCOM 904-860-4500
TDD 904-329-4450 TDD SUNCOM 860-4450
FAX (Executive) 329-4125 (Legal) 329-4485 (Permitting) 329-4315 (Administration/Finance) 329-4508

SERVICE CENTERS

616 E. South Street
Orlando, Florida 32801
407-897-4300
TDD 407-897-5960

7775 Baymeadows Way
Suite 102
Jacksonville, Florida 32256
904-730-6270
TDD 904-448-7900

PERMITTING:
305 East Drive
Melbourne, Florida 32904
407-984-4940
TDD 407-723-5306

OPERATIONS:
2133 N. Wickham Road
Melbourne, Florida 32935-8109
407-752-3160
TDD 407-768-3162

July 13, 1999

MR MARK CLINTON SANTARELLI
PO BOX 57323
JACKSONVILLE, FL 32241-0000

SUBJECT: Water Well Contractor License Number 7142

Dear MARK SANTARELLI

Enclosed is your Water Well Contractor's License as issued by the Governing Board on July 13, 1999.

If you have any questions regarding your licensing, please do not hesitate to contact this office.

Sincerely,

Rosie Parker

Rosie Parker, Data Control Technician
Division of Permit Data Services
Department of Resource Management

Enclosure(s)

STATE OF FLORIDA
WATER WELL CONTRACTOR LICENSE
Issued to
MR MARK CLINTON SANTARELLI
By
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
License No. 7142 Expires July 31, 2001

Henry Dean
DISTRICT CERTIFICATION OFFICER

FORM 0185

The State of Florida

Has Determined That

MARK CLINTON SANTARELLI

Is Qualified As A

Water Well Contractor

PURSUANT TO CHAPTER 373, FLORIDA STATUTES

In The

State of Florida

And Hereby Issues

License Number

7142

Issued By The ST. JOHNS RIVER Water Management District

This 7TH Day Of SEPTEMBER, 1993 A.D.

STATE OF FLORIDA

WATER WELL CONTRACTOR LICENSE

Issued to

Mr Lewis Johnson

By

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

License No. **7008** *Expires* **July 31, 2003**

DISTRICT CERTIFICATION OFFICER

FLORIDA STATE BOARD
of
PROFESSIONAL SURVEYORS AND MAPPERS

CERTIFICATE No. LB-0006755

CERTIFICATE OF AUTHORIZATION PERMITTING INDIVIDUAL REGISTERED PROFESSIONAL SURVEYORS AND MAPPERS TO OFFER PROFESSIONAL SERVICES TO THE PUBLIC THROUGH A CORPORATION, PARTNERSHIP, ASSOCIATION, FICTITIOUS NAME OR FIRM.

WHEREAS

HOLLAND & BASSETT SURVEYORS, INC.

HAS MET THE REQUIREMENT OF CHAPTER 472.021, FLORIDA STATUTES, FLORIDA STATE BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS AUTHORIZES THE SAID CORPORATION TO OFFER TO THE PUBLIC PROFESSIONAL SURVEYING AND MAPPING SERVICES.

IN TESTIMONY WHEREOF, WITNESS THE SIGNATURE OF THE PROGRAM ADMINISTRATOR UNDER SEAL OF THE BOARD THIS 12TH DAY OF DECEMBER, 1996.

Carrie Flynn

Program Administrator

AC# 5440627

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROF SURVEYORS & MAPPERS

DATE	BATCH NUMBER	LICENSE NBR
12/23/1998	98901984	LB -0006755

The SURVEYING & MAPPING BUSINESS
Named below IS CERTIFIED
Under the provisions of Chapter 472 FS.
Expiration date: FEB 28, 2001

HOLLAND & BASSETT SURVEYORS INC
7601 ALTON AVE
JACKSONVILLE FL 32211

LAWTON CHILES
GOVERNOR

DISPLAY AS REQUIRED BY LAW

RICHARD T. FARRELL
SECRETARY

AC# 5440638

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROF SURVEYORS & MAPPERS

DATE	BATCH NUMBER	LICENSE NBR
12/23/1998	98901984	LS -0004242

The SURVEYOR AND MAPPER
Named below IS LICENSED
Under the provisions of Chapter 472 FS.
Expiration date: FEB 28, 2001

HOLLAND, ROBERT ERIC
7601 ALTON AVE
JACKSONVILLE FL 32211

LAWTON CHILES
GOVERNOR

DISPLAY AS REQUIRED BY LAW

RICHARD T. FARRELL
SECRETARY

AC# 5440642

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROF SURVEYORS & MAPPERS

DATE	BATCH NUMBER	LICENSE NBR
12/23/1998	98901984	LS -0004591

The SURVEYOR AND MAPPER
Named below IS LICENSED
Under the provisions of Chapter 472 FS.
Expiration date: FEB 28, 2001

BASSETT, CHARLES R JR
7601 ALTON AVENUE
JACKSONVILLE FL 32211

LAWTON CHILES

RICHARD T. FARRELL

2000-2001 OCCUPATIONAL LICENSE TAX

LYNWOOD ROBERTS

OFFICE OF THE TAX COLLECTOR

CITY OF JACKSONVILLE and/or COUNTY OF DUVAL, FLORIDA

231 EAST FORSYTH STREET ROOM 130, JACKSONVILLE, FL 32202 PHONE: (904)630-2080 FAX: (904)630-1432

Note - A penalty is imposed for failure to keep this license exhibited conspicuously at your establishment or place of business.
This license is furnished in pursuance of chapter 770-772 City ordinance codes.

HOLLAND, ROBERT ERIC 03
HOLLAND & BASSETT SURVEYORS
INC
7601 ALTON AV
JACKSONVILLE, FL 32211

ACCOUNT NUMBER: 054659-0000-5

LOCATION ADDRESS: 7601 ALTON AV
32211

DESCRIPTION: SURVEYOR, LAND

County License Code:	770.322-039	County Tax:	$30.00
Municipal License Code:	772.325	Municipal Tax:	$50.00
		Total Tax Paid:	$80.00

VALID FROM OCTOBER 1, 2000 TO SEPTEMBER 30, 2001

RCPT #: 001T003055 DATE: 8/24/2000 AMT: $80.00

ATTENTION

The Following Construction Contractors Require Additional Licensure

ALARM	POOL	ALUMINUM/VINYL
RESIDENTIAL	BUILDING	ROOFING
ELECTRICAL	SHEET METAL	SOLAR
MECHANICAL	PLUMBING	IRRIGATION
GENERAL	CARPENTRY	WATER TREATMENT
UNDERGROUND UTILITY	HEATING	AIR CONDITIONING
REFRIGERATION		

This is an occupational license tax only. It does not permit the licensee to violate any existing regulatory or zoning laws of the County or City. Nor does it exempt the licensee from any other license or permit required by law. This is not a certification of the licensee's qualification.

Lynwood Roberts

TAX COLLECTOR

THIS BECOMES A RECEIPT AFTER VALIDATION

Appendix C

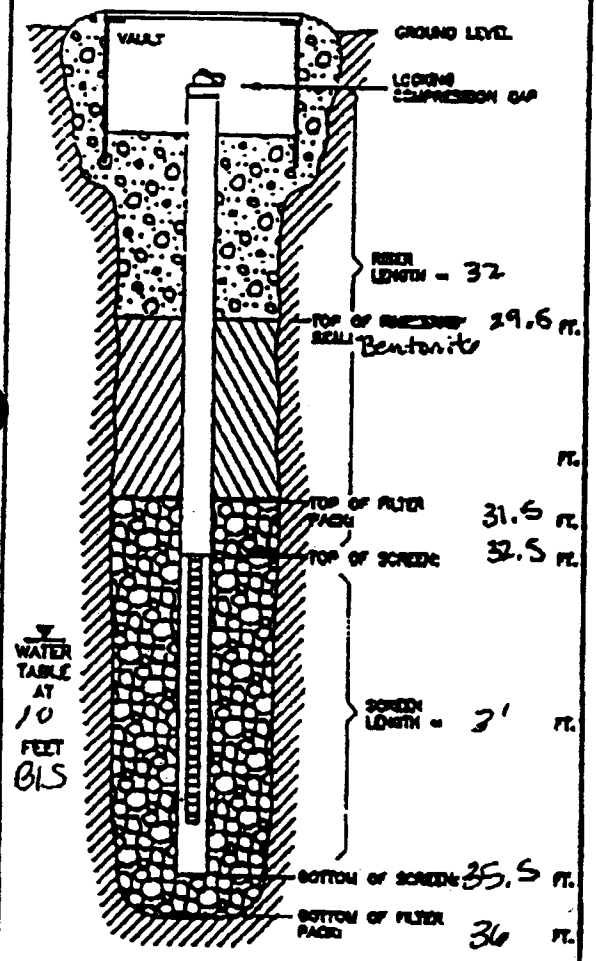
Boring Logs/Well Construction Diagrams

MONITORING WELL DATA SHEET

PROJECT: Oilfield Day Tank 1	PROJECT NO.:	WELL NO.: RP-1
SITE MANAGER: Roger Dicdar	DATE INSTALLED: 1/8/00	TOTAL DEPTH: 36 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: TransAmerican		WATER TABLE: 10' b/s FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MINS.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
1'-2' - limerock 2'-3' - Dark brown very fine grained silica sand. very organic. 3'-36' - gray very fine grained sand	

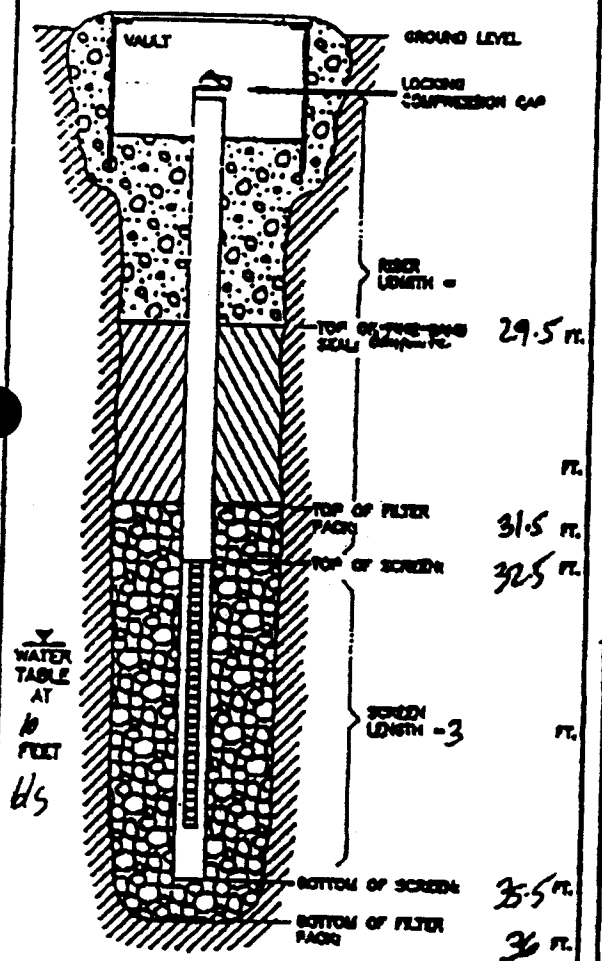
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Fld - Dry Tank 1	PROJECT NO.:	WELL NO.: BP-2
SITE MANAGER: Roger Dixeler	DATE INSTALLED: 4/13/2000	TOTAL DEPTH: 36' Boring FT.
DRILLER: Trans American Jr Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2 4 IN.
DRILLING COMPANY:		WATER TABLE: ~ 10' b/s FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC		SCREEN TYPE: Sch 20 PVC	
FILTER PACK: 20/30 Silica		SLOT SIZE: 0.010	IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-2 Imrock Roadbed	
2-4 Dark Brown Fig-Silica Sand	
4-36 Lt. Brown Silty Sand, Fig.	

REFERENCE BORING LOG:

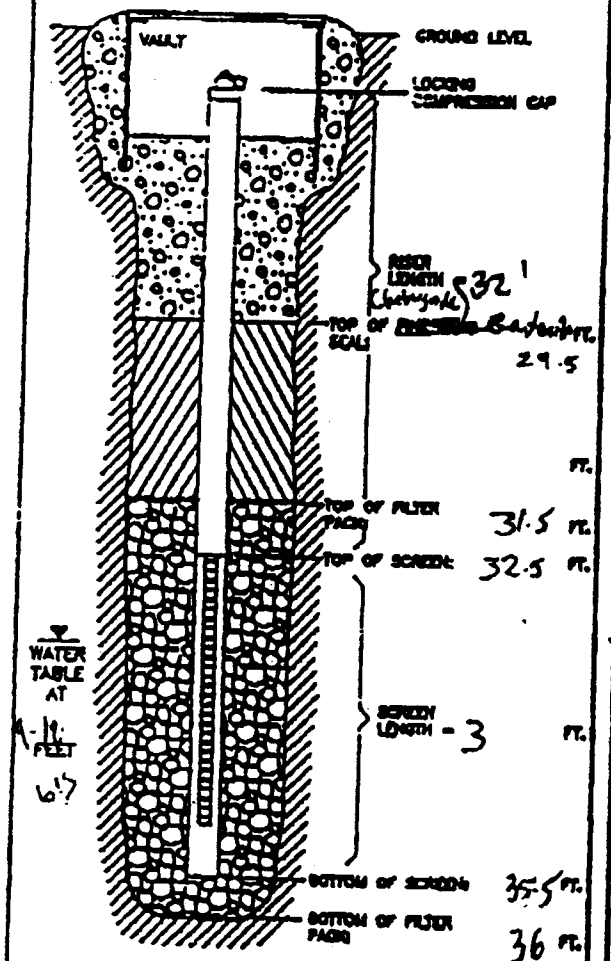
MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Oxy Tank 1	PROJECT NO.:	WELL NO.: BP-3
SITE MANAGER: Roger Bieler	DATE INSTALLED: 1/18/2000	TOTAL DEPTH: 36' FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Transmorgan		WATER TABLE: 10' bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC | SCREEN TYPE: Sch 80 PVC

FILTER PACK: 20 | SLOT SIZE: IN.



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MINS.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-1 Limestone road bed 1-6' Dark brown, Fine grained silica. 6-36 Lt Brown/Grey f.g. silica.	

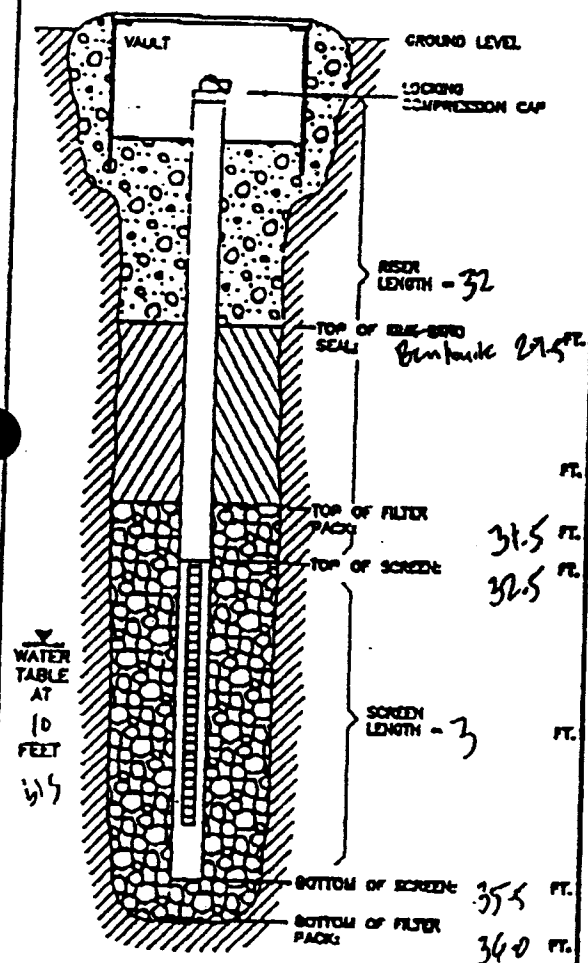
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Fuel Tank 1	PROJECT NO.:	WELL NO.: BG4	
SITE MANAGER: Ryan Beeler	DATE INSTALLED: 1/13/2000	TOTAL DEPTH: 36'	FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2"	IN.
DRILLING COMPANY: Trans American		WATER TABLE: 10'	FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC		
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.010		IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-1 Asphalt & Limerock fill	
1-6' Dark Br. f-g Silica sand	
6-36 Lt Br., f-g Silica Sand	

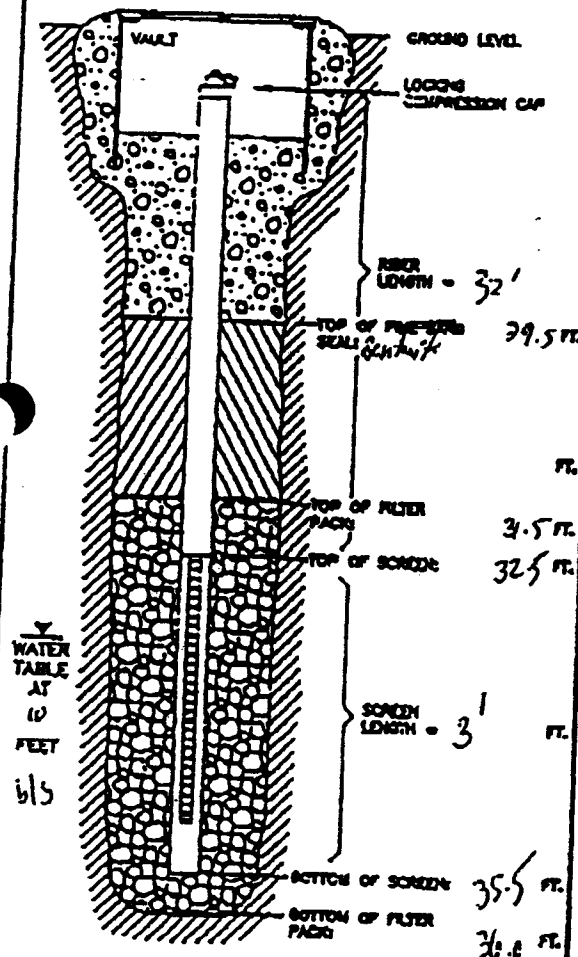
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Day Tank 1	PROJECT NO.:	WELL NO.: BP-5	
SITE MANAGER: Roger Dreeben	DATE INSTALLED: 11/14/00	TOTAL DEPTH: 36'	FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2"	IN.
DRILLING COMPANY: TransAmerican		WATER TABLE: 9-10 b/s	FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC		
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.010		IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-1 Asphalt + limerock fill and sand 1-7 Dark Br. Very fine grained Silica w/ trace of shells 7-36 Lt. Brown/Grey F-g. Sand. Saturated and hydraulic conductivity ~ 11 b/s.	

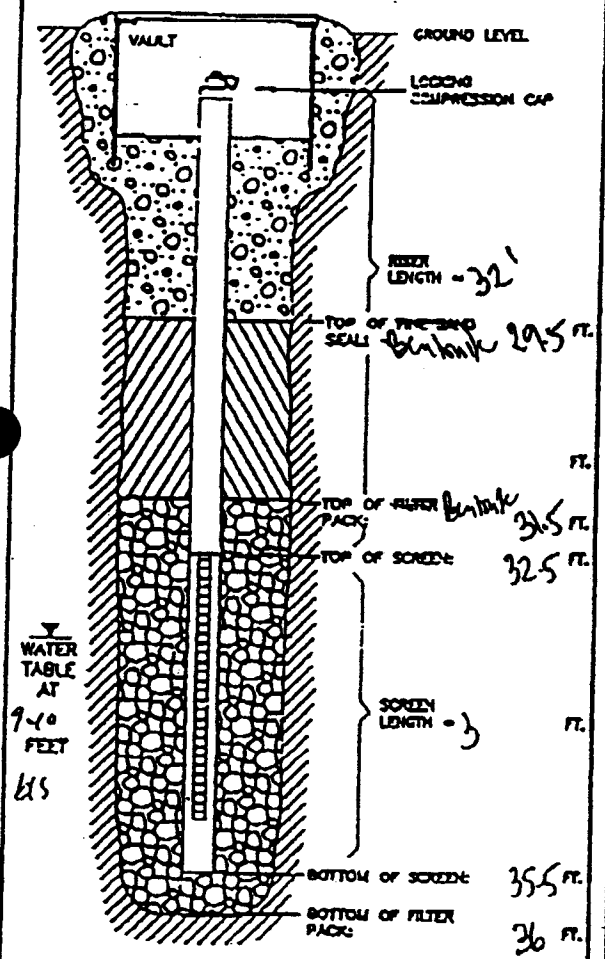
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Coci Field - Day Tank 1	PROJECT NO.:	WELL NO.: BP-6	
SITE MANAGER: Kaya Drake	DATE INSTALLED: 1/14/00	TOTAL DEPTH: 36'	FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2"	IN.
DRILLING COMPANY: Ware American		WATER TABLE: 9-10' bls	FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC		
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.010		IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-1 Asphalt Concrete fill 1-7' bls Brown-Lt.g Silty Sand w/heavy organics. 7-36 Lt-Brown/Gray f.g Silty Sand. GW ~ 9'	

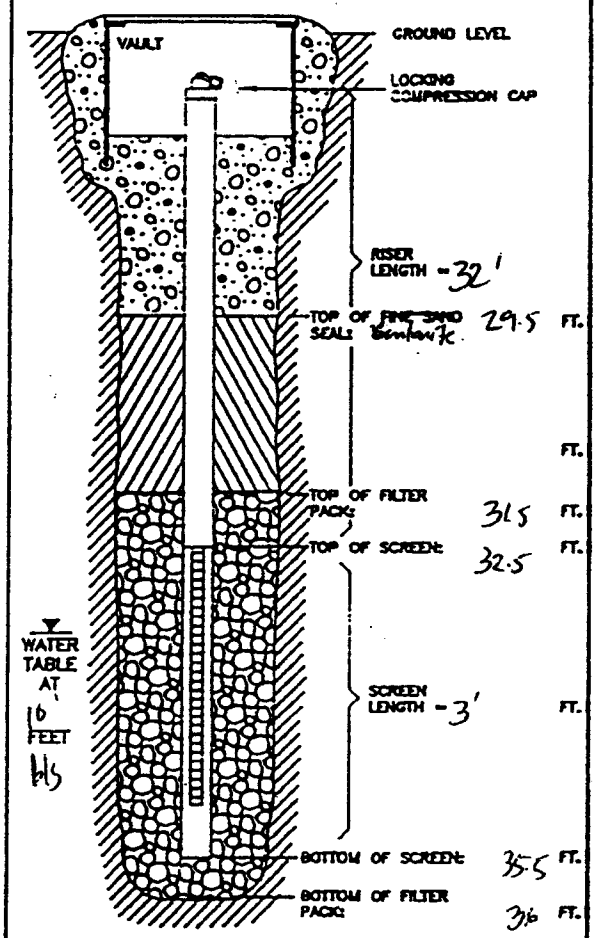
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Ceci Field - Day Tank 1	PROJECT NO.:	WELL NO.: BP-7
SITE MANAGER: Regan Dreier	DATE INSTALLED: 1/14/00	TOTAL DEPTH: 36 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans Ameriam		WATER TABLE: 9-10' FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC		
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.010		IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-1 Asphalt / Concrete road bed 1-6 Dark Brown, F-G Silica w/ organics. 6-36 Lt. Brown/Gray f-g. Silica Sand. DTW ~ 9-10' bls.	

REFERENCE BORING LOG:

NEAT CEMENT/ BENTONITE GROUT
FINE SAND
FILTER PACK

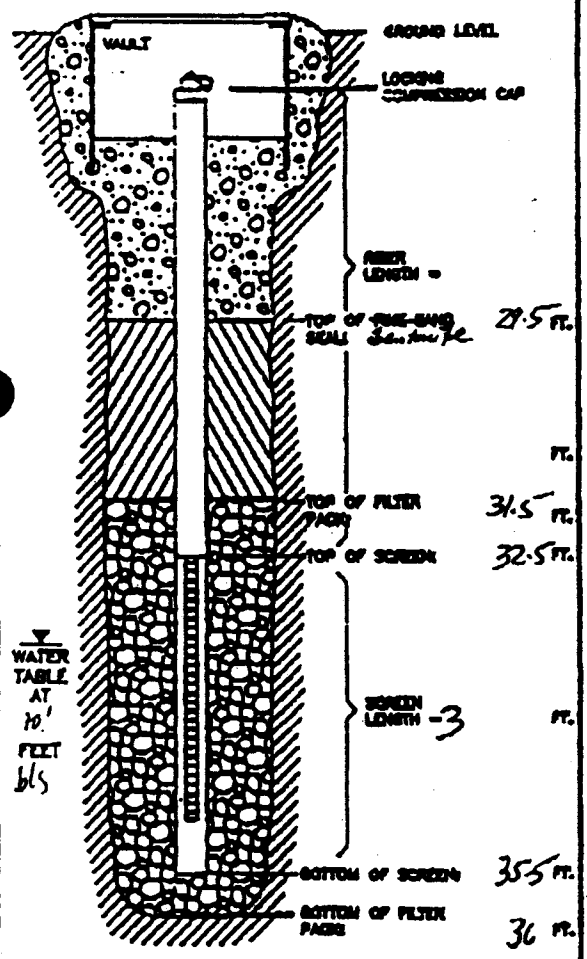
RUST ENVIRONMENT & INFRASTRUCTURE

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Day Tank 1	PROJECT NO.:	WELL NO.: BP-8
SITE MANAGER: Roger Deisley	DATE INSTALLED: 1/17/00	TOTAL DEPTH: 36 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans American		WATER TABLE: 9-10' bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	Sch 80 PVC	SCREEN TYPE:	Sch 80 PVC
FILTER PACK:	20/30 Silica	SLOT SIZE:	0.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
Asphalt Surface 0-1' Limerock Base 1-2 Dark Brown, f-g-Silica 2-6' F-g, Lt. Brown/Grey Silica 6-36 Brown, Very f-g. Silica sand.	

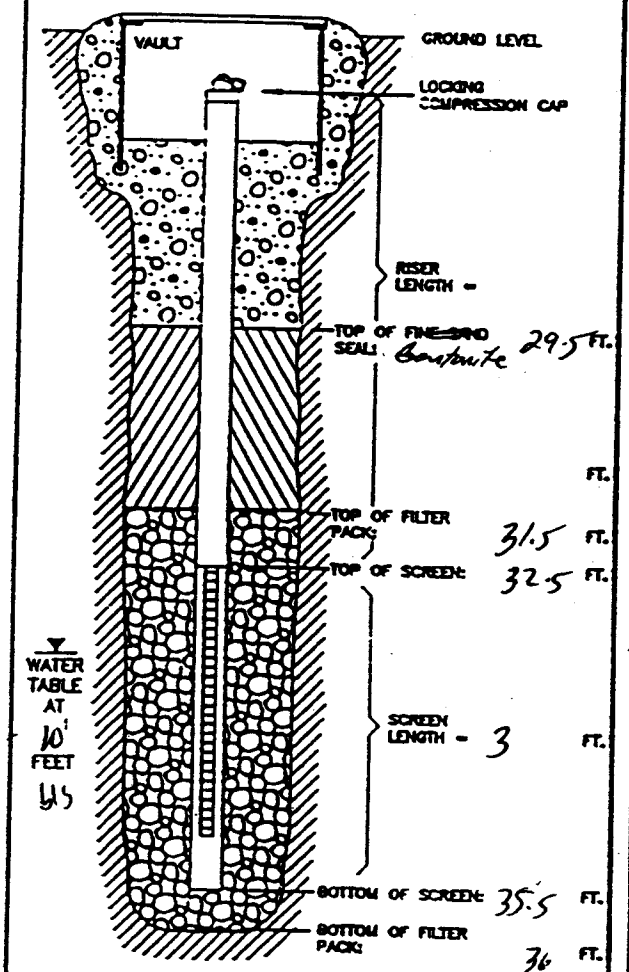
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Ceci/Field - Day Tank 1	PROJECT NO.:	WELL NO.: BP-9
SITE MANAGER: Roger Ikerd	DATE INSTALLED: 1/17/00	TOTAL DEPTH: 36 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2 11 IN.
DRILLING COMPANY: Transamerican		WATER TABLE: 10'6/5 FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MINS.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
Asphalt Surface 2"-1' Concrete fill 1'-5' Dark brown organic silty, fine grained 5'-36' Lt brown f-g - Silty sand	

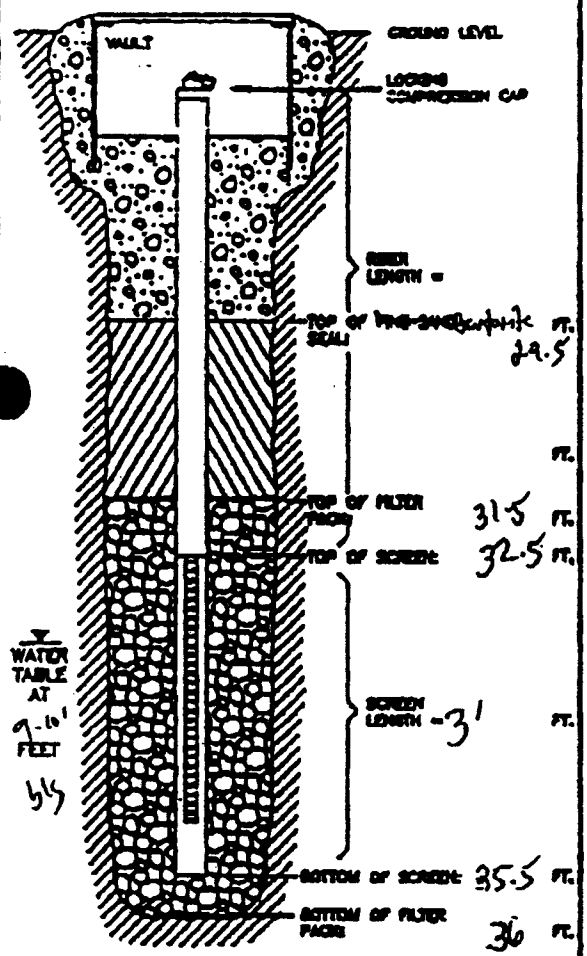
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Central Field - Day Tank 1	PROJECT NO.:	WELL NO.: BP-10
SITE MANAGER: Roxy Diester	DATE INSTALLED: 1/19/00	TOTAL DEPTH: 36' FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans American		WATER TABLE: 9-10' bgs FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	Sch 80 PVC	SCREEN TYPE:	Sch 80 PVC
FILTER PACK:	20/30 Silica	SLOT SIZE:	0.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MIN.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
Asphalt Cover 2" 1' Limerock road base 1'-4' Brown fg. silty. 4-10 Red/Brown Slt fg. Silty Sand 10'-36' Brown fg Silty Sand	

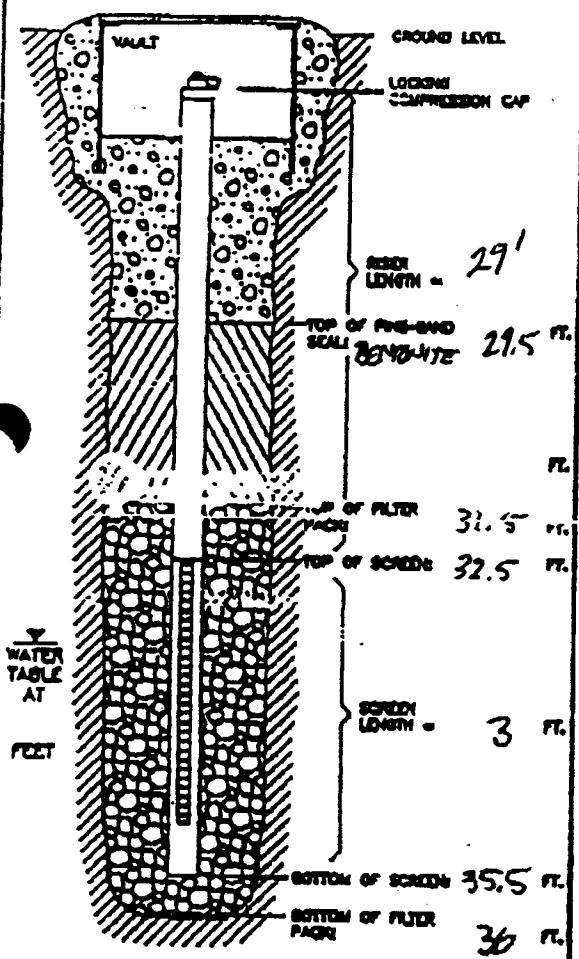
REFERENCE BORING LOG

MONITORING WELL DATA SHEET

PROJECT: Cecil Field Disp. Tank	PROJECT NO.:	WELL NO.:	BP-11
SITE MANAGER: Roger Dixon	DATE INSTALLED: 1/15/00	TOTAL DEPTH:	36 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: Hollow Stem Aug.	WELL DIA.:	2" IN.
DRILLING COMPANY: Texas American		WATER TABLE:	9-10 bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	SCH 80 PVC	SCREEN TYPE:	SCH 80 PVC
FILTER PACK:	20/30 SILICA	SLOT SIZE:	.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
Asphalt surface	
1'-1' Limerock ~~sub-base~~	
1-2 Lt. to Dark Gray Medium grain silica	
2-4 Mod. to Fine grain tan to brown silica/organic hard/compacted	
4-21 Brown V. Fine grained silty sand	

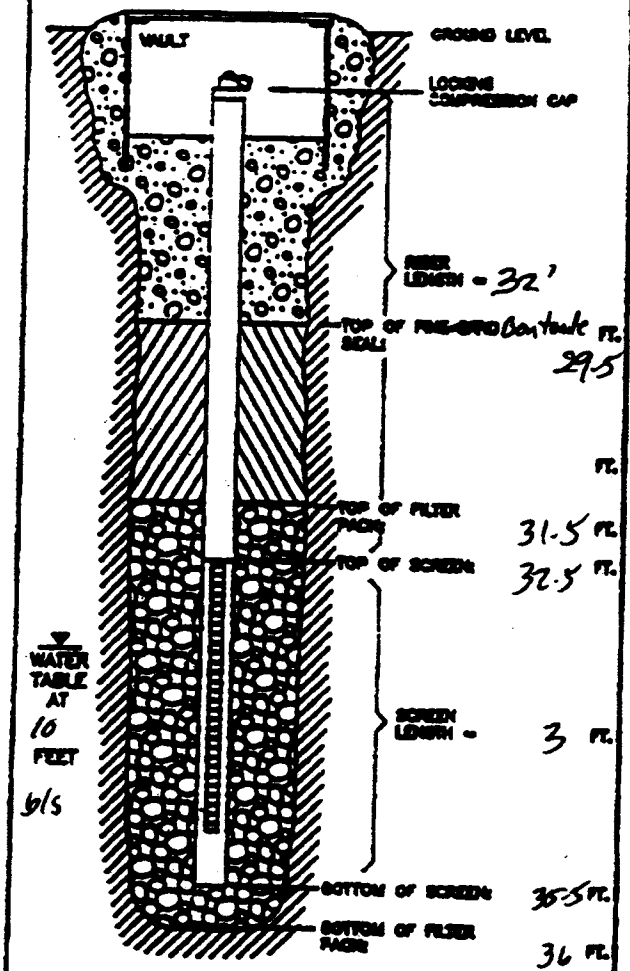
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Dry Tank 1	PROJECT NO.:	WELL NO.: BP-12
SITE MANAGER: Roger Dresler	DATE INSTALLED: 1/18/2000	TOTAL DEPTH: 36' FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: TransAmerican		WATER TABLE: 9-10' bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	Sch 80 PVC	SCREEN TYPE:	Sch 80 PVC
FILTER PACK:	20/30 Silica	SLOT SIZE:	0.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
Asphalt Surface 2"-1' Limerock road bed 1'-6' Dark Brown, f-g-silica 6'-36' Lt Brown/Grey v.f-g- silica. DW ~ 10' impacted soils ~ 8' bls.	

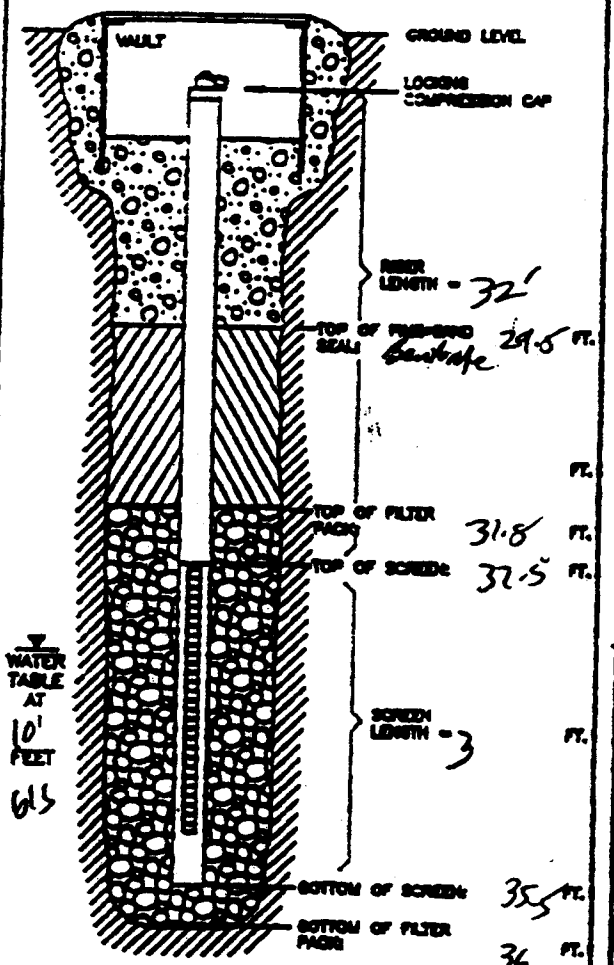
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Day Tank 1	PROJECT NO.:	WELL NO.: BP-13
SITE MANAGER: Roger Dresler	DATE INSTALLED: 1/18/2000	TOTAL DEPTH: FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans American		WATER TABLE: 10'6.5 FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	Sch 80 PVC	SCREEN TYPE:	Sch 80 PVC
FILTER PACK:	20/30 Silica	SLOT SIZE:	0.01 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
4" Concrete Surface 6" - 12" Limerock Road bed 1' - 4' Dark BG Fg-Silica compacted 4' - 10' Orange/brown fg. Silica 10-36' Lt BG/Gray Fg. Silica.	

REFERENCE BORING LOG:

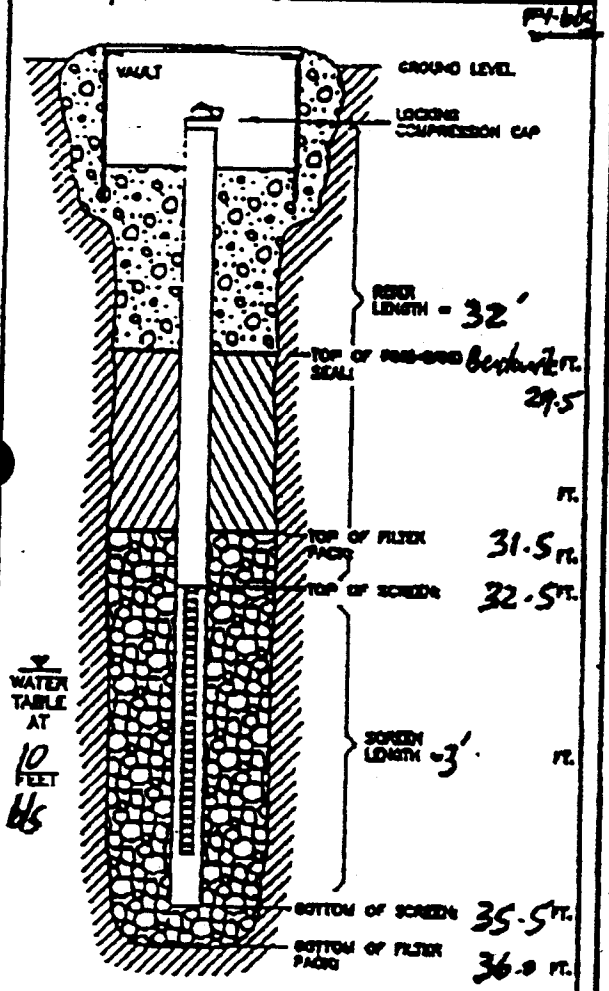
MONITORING WELL DATA SHEET

PROJECT: Cecil Fuchs - Bay Tank 1	PROJECT NO.:	WELL NO.: BP-14
SITE MANAGER: Roger Brooker	DATE INSTALLED: 1/11/2000	TOTAL DEPTH: (bgs) 36' FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: IN.
DRILLING COMPANY: Tracy Borings		WATER TABLE: ~10' 6/5 FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC | SCREEN TYPE: Sch 80 PVC

FILTER PACK: 20/30 Silica | SLOT SIZE: 0.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MINS.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0'-14' Dark Brown very fine grained, Silica Sand. Highly organic. 14-36' Dark greenish/grey Fine grained Sand. Impacted w/ Hydrocarbons @ ± 11-12' 6/5.	

REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

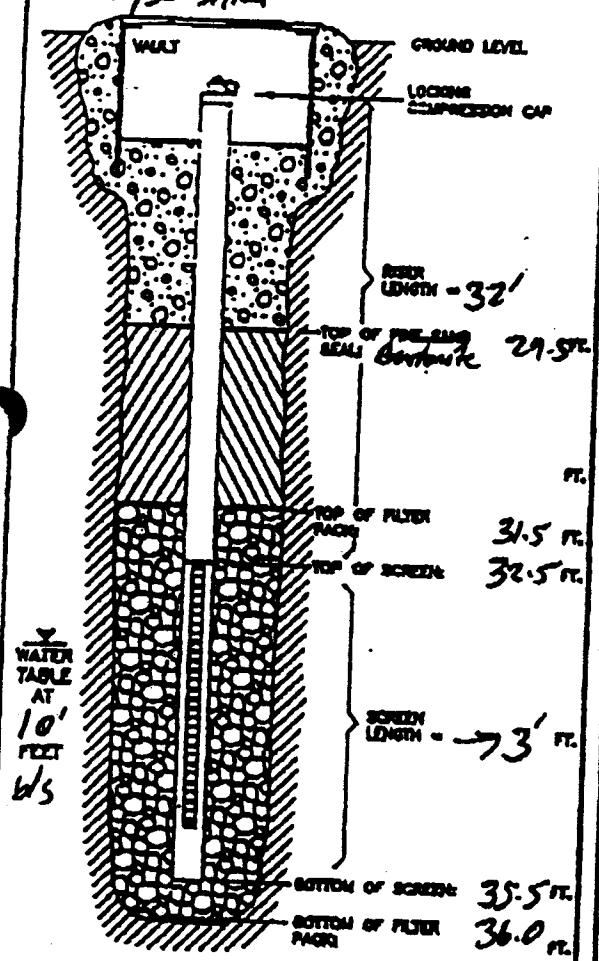
PROJECT: Cecil Field-Jay Tank 1	PROJECT NO.:	WELL NO.: BP-15
SITE MANAGER: Roger Dieveler	DATE INSTALLED: 1/12/2000	TOTAL DEPTH: 36' FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2-inch IN.
DRILLING COMPANY: Trans Atlantic		WATER TABLE: 10' bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC SCREEN TYPE:

FILTER PACK: Sch 80 PVC SLOT SIZE: 0.010 IN.

20/30 Silica



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MINS.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0'-14' Dark Brown, very fine grained silica sand High organics	
14-36' Dark grayish/grey f-g Sand. Impacted w/ Hydrocarbons @ ~ 12' bls.	

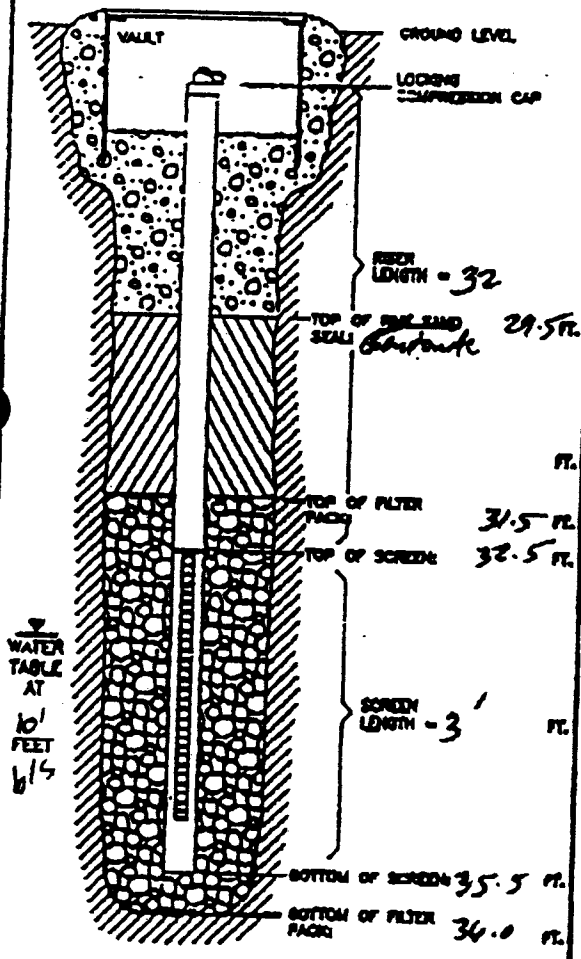
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Ceco/Field-Dayton	PROJECT NO.:	WELL NO.: BP-16
SITE MANAGER: Roger Auler	DATE INSTALLED: 1/12/06	TOTAL DEPTH: 36' FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans American		WATER TABLE: 10' 6/5 FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	Sch 80 PVC	SCREEN TYPE:	Sch 80 PVC
FILTER PACK:	20/30 Silica	SLOT SIZE:	0.010 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-13' Dark Brown, dry fine grained Silica Sand, Very Organic. 13-36' Lt. Brown/Grey/Brown f-g. Silica. Encountered w/ Hydrocarbons ~ 9' 6/5.	

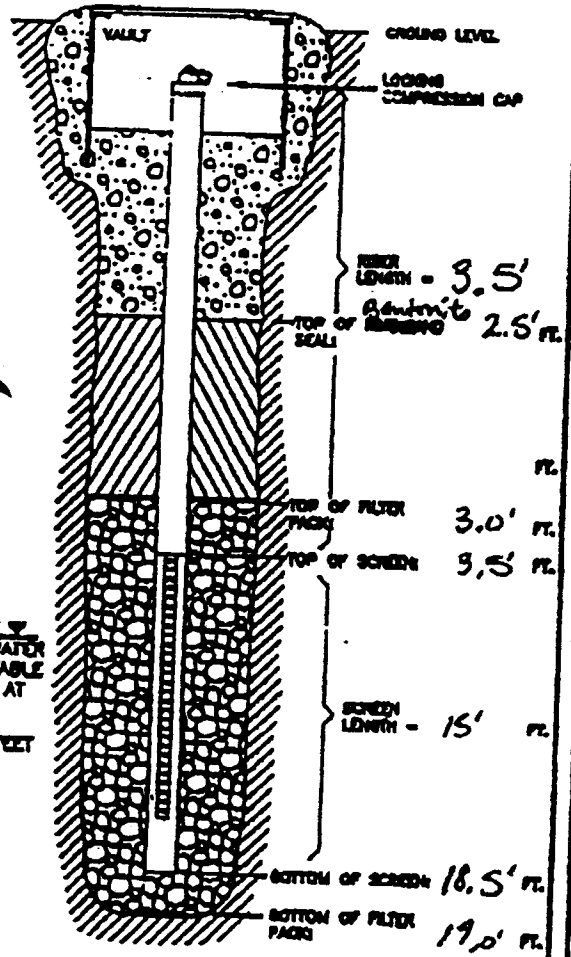
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Day Tank 1	PROJECT NO.:	WELL NO.: VEW-1
SITE MANAGER: Roger Diceler	DATE INSTALLED: 1/12/00	TOTAL DEPTH: 19' bls FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans American		WATER TABLE: ~10' bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	Sch 80 PVC	SCREEN TYPE:	Sch 80 PVC
FILTER PACK:	20/30	SLOT SIZE:	0.020 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0'-1'- limerock 1' 1/2 Black very fine Silica very organic. 12'-19' Dk brown fine grain moist Bentonite ~4'	

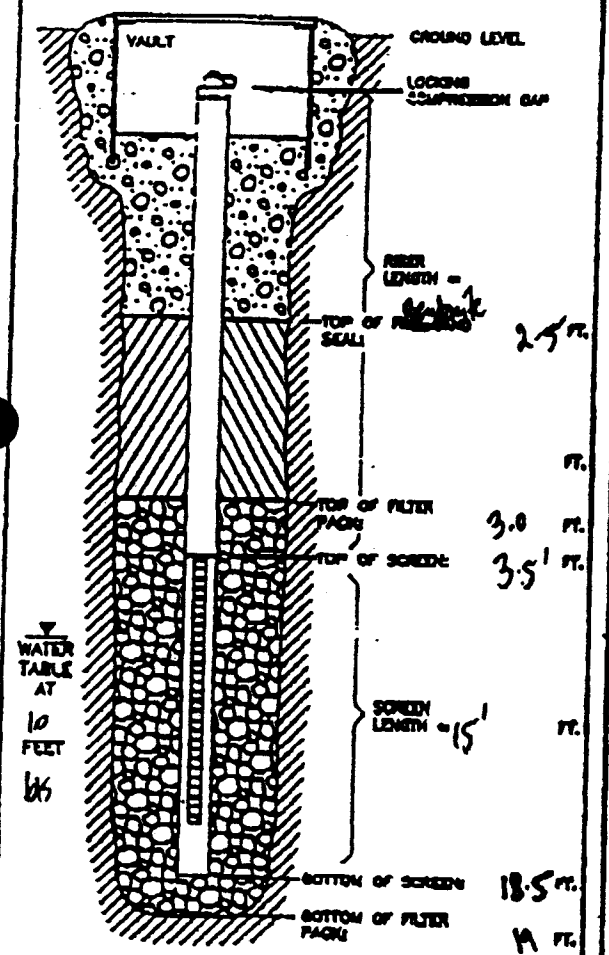
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Dry Tank 1	PROJECT NO.:	WELL NO.: VEW-2
SITE MANAGER: Roger Archer	DATE INSTALLED: 1/13/2000	TOTAL DEPTH: 19' FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2-inch IN.
DRILLING COMPANY: TransAmerican		WATER TABLE: 10'65 FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC		SCREEN TYPE: Sch 80 PVC	
FILTER PACK: 20/30		SLOT SIZE: 0.020	IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-2' Silt 2-6 Dark brown fine Sand heavy organics. 6-? Medium brown fine Sand	

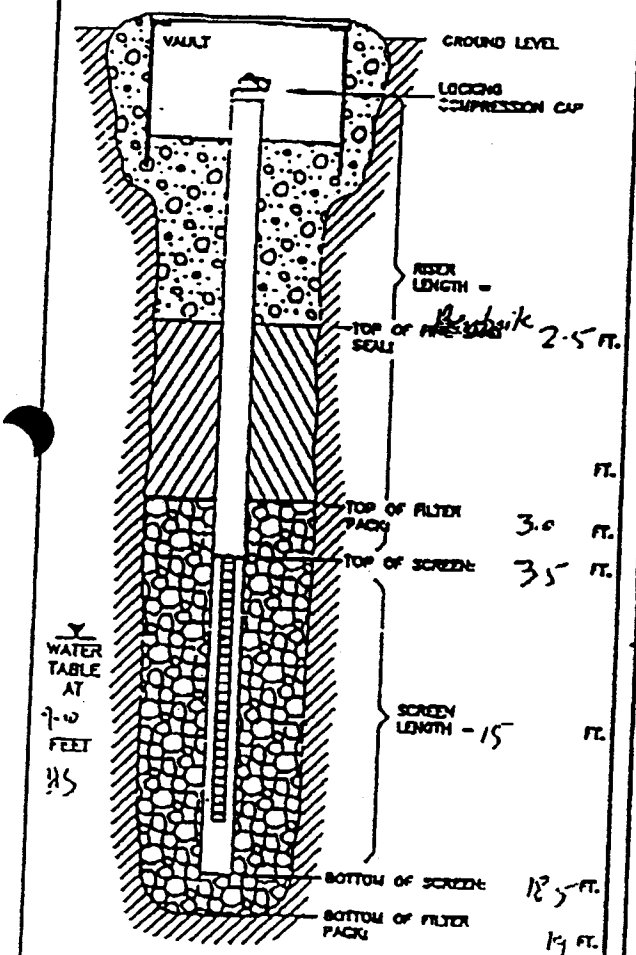
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Dry Tank 1	PROJECT NO.:	WELL NO.: VEW-3
SITE MANAGER: Roger Diceler	DATE INSTALLED: 1/14/00	TOTAL DEPTH: 19 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans American		WATER TABLE: ~9-10' 1/5 FT.

WELL CONSTRUCTION DETAIL

RISER TYPE:	Sch 80 PVC	SCREEN TYPE:	Sch 80 PVC
FILTER PACK:	20/30 Silica	SLOT SIZE:	0.020 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-1' Asphalt & Concrete road bed 1-7' Dark Brown, f-g. Silica w/ heavy organics 7-19 Lt Brown/Gray f-g. Silica.	

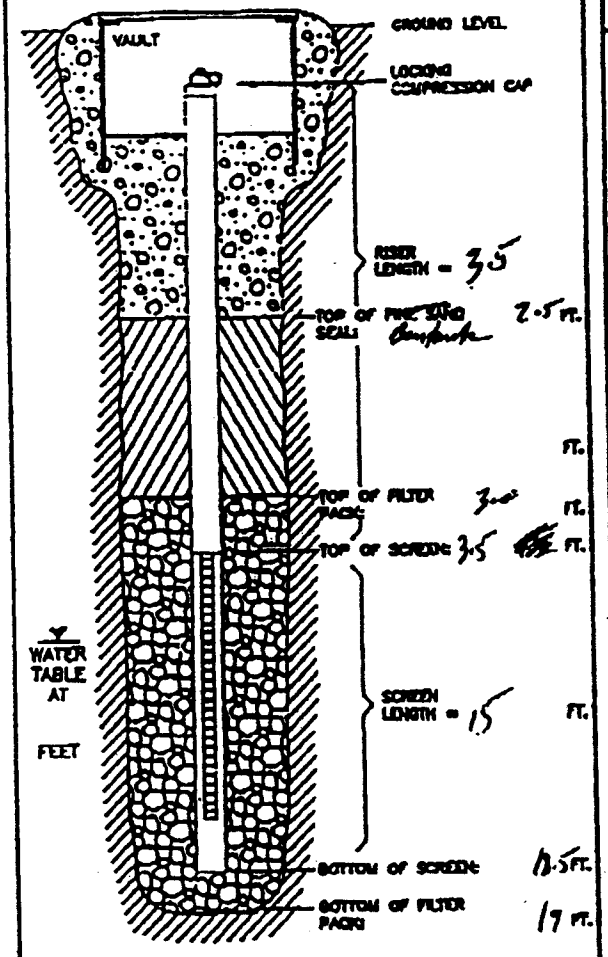
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field-Day Tank 1	PROJECT NO.:	WELL NO.: VEW-4	
SITE MANAGER: Roger Beisler	DATE INSTALLED: 1/17/00	TOTAL DEPTH: 19	FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2"	IN.
DRILLING COMPANY: Trans American		WATER TABLE: 9-10'65	FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC		
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.020		IN.



WELL DEVELOPMENT DATA

PUMP TYPE:		PUMP RATE:	GPM
DEVELOPMENT TIME:	MINS.	VOLUME PUMPED:	GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
Asphalt Surface. 2"- 1' Limerock base 1-6' Dk Brown f-g Silica sand (compacted) 6'-19' Lt Brown f-g Silica Sand	

REFERENCE BORING LOG:

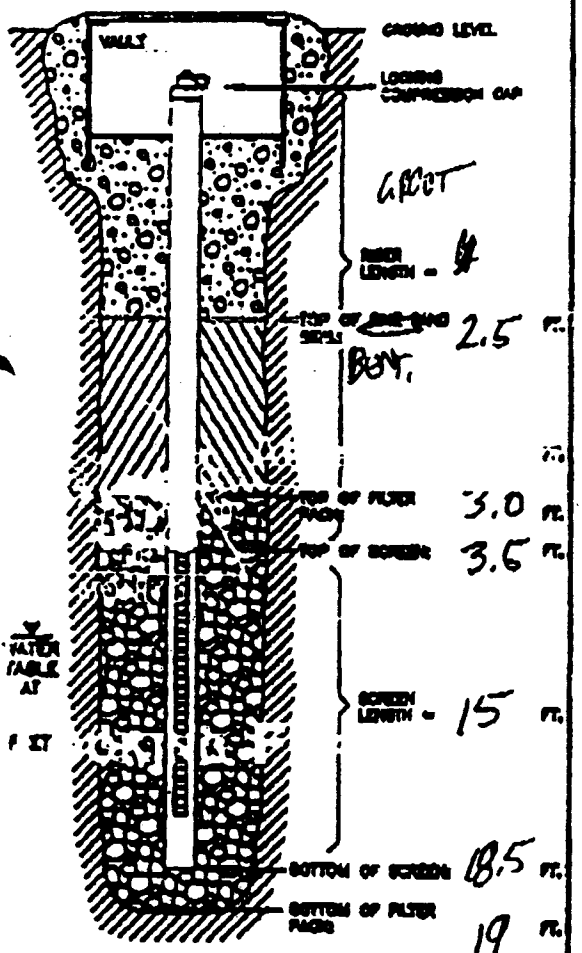
MONITORING WELL DATA SHEET

PROJECT: CEILFIELD DAY TANK 1	PROJECT NO.:	WELL NO.: VE-W5	
SITE MANAGER: POOL DIESEL	DATE INSTALLED: 11/15/00	TOTAL DEPTH: 19	FT.
DRILLER: LONNIE JOHNSON	DRILLING METHOD: HOLLOW STEM	WELL DIA.: 2"	IN.
DRILLING COMPANY: TRANSATLANTIC		WATER TABLE: 10	FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: SCH 80 PVC | SCREEN TYPE: 80 SLOTTED

FILTER PACK: 20/30 | SLOT SIZE: .020 IN.



WELL DEVELOPMENT DATA

PUMP TYPE: | PUMP RATE: GPM

DEVELOPMENT TIME: MINS. | VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-1' LIMEROCK BASE	
1-2 GREY MEDIUM-GRAIN SILICA SAND	
2-19 LT. BROWN TO BROWN V. FINE GRAIN SILTY SAND	

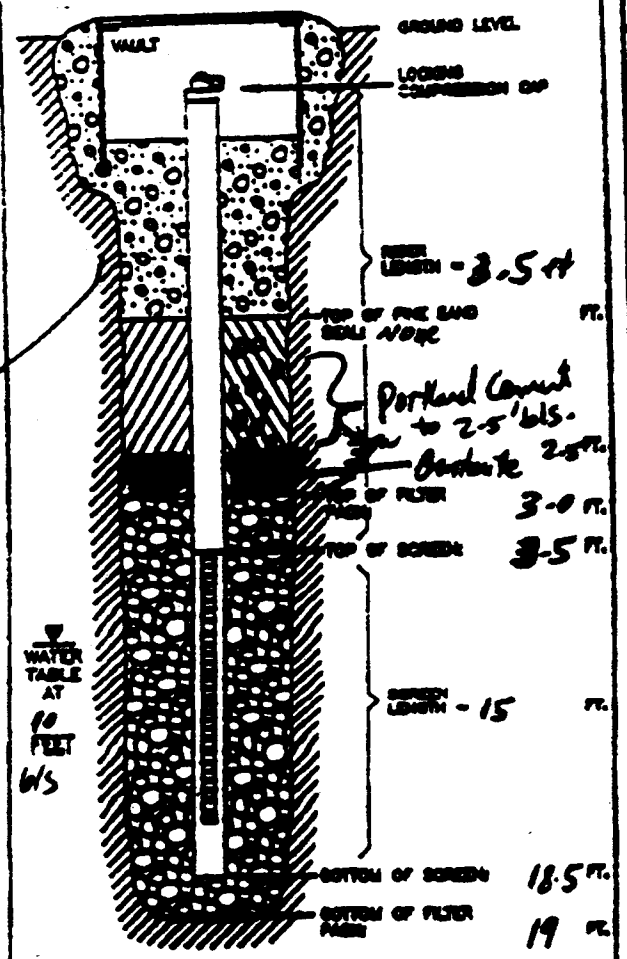
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Dry Tank 1	PROJECT NO.:	WELL NO.: VEW-6
SITE MANAGER: Roger Dueker	DATE INSTALLED: 1/18/2000	TOTAL DEPTH (Boring): 19 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2-inch IN.
DRILLING COMPANY: Tom's Minerva		WATER TABLE: ~10' bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC
FILTER PACK: 20/30 Silica	SLOT SIZE: 0.020 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MIN.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0' Dark brown, very fine grained Silica Sand, very organic in appearance 14' - Dark Greenish Grey to 19' Fine grained Sand Saturated at hydrocarbons at ~ 11-12'.	

REFERENCE BORING LOG:

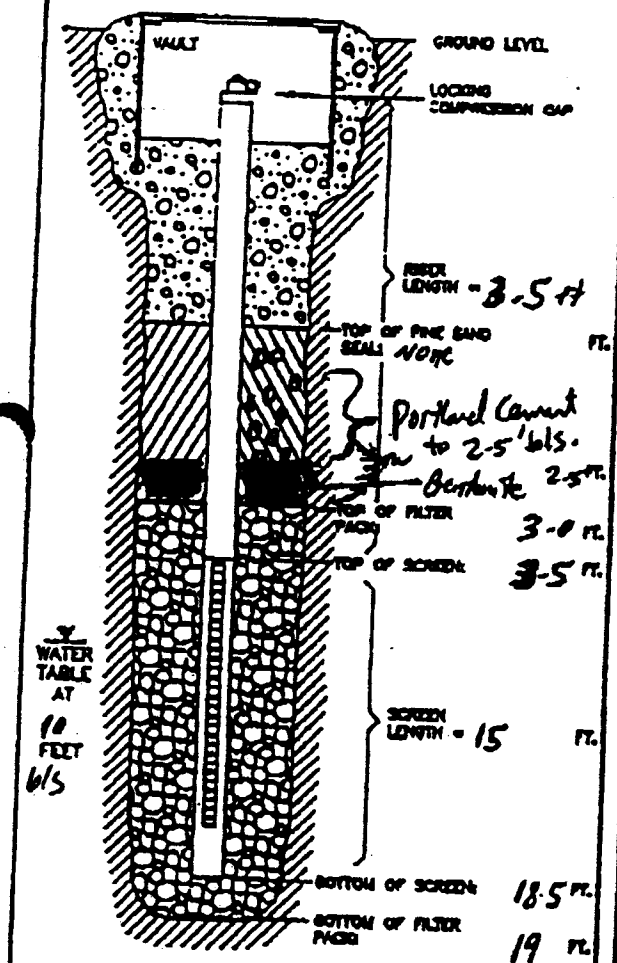
MONITORING WELL DATA SHEET

PROJECT: Ceil Field-Dry Tank 1	PROJECT NO.:	WELL NO.: VEW-7
SITE MANAGER: Roger Dreier	DATE INSTALLED: 1/11/2000	TOTAL DEPTH (Boring): 19 FT.
DRILLER: Lewis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2-inch IN.
DRILLING COMPANY: Trans America		WATER TABLE: ~10' bls FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC | SCREEN TYPE: Sch 80 PVC

FILTER PACK: 20/30 Silica | SLOT SIZE: 0.020 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MINS.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0' Dark brown, very fine grained Silty Sand, very organic in appearance 04' Dark Greenish/Grey to 19' Fine grained Sand *Impacted w/ hydrocarbons at ≈ 11-12'.	

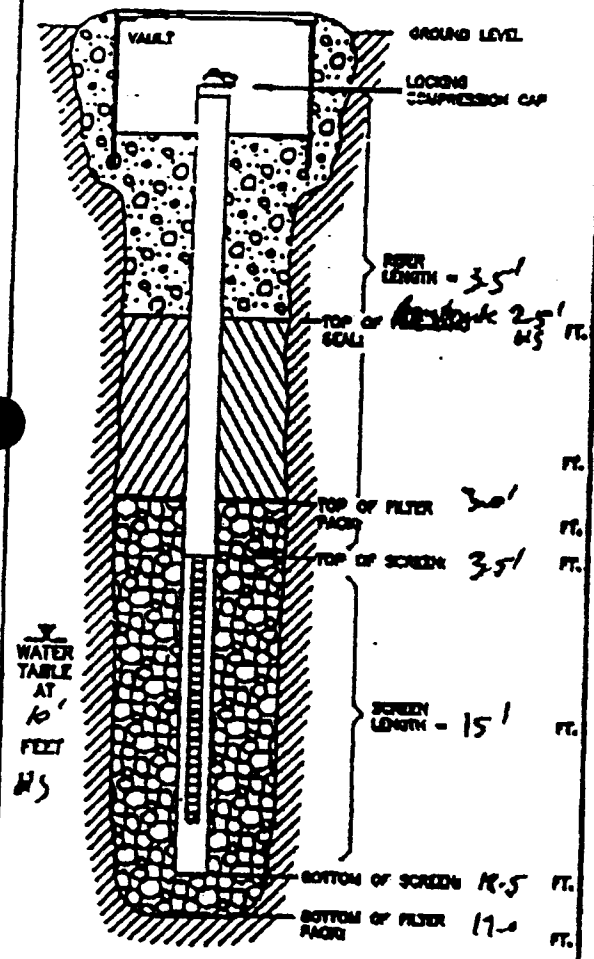
REFERENCE BORING LOG:

MONITORING WELL DATA SHEET

PROJECT: Cecil Field - Dry Tank 1	PROJECT NO.:	WELL NO.: VEW-8
SITE MANAGER: Roger Oneler	DATE INSTALLED: 1/12/rem	TOTAL DEPTH: 19' BS FT.
DRILLER: Louis Johnson	DRILLING METHOD: HSA	WELL DIA.: 2" IN.
DRILLING COMPANY: Trans America		WATER TABLE: ~10' BS FT.

WELL CONSTRUCTION DETAIL

RISER TYPE: Sch 80 PVC	SCREEN TYPE: Sch 80 PVC
FILTER PACK: 20/30	SLOT SIZE: 0.020 IN.



WELL DEVELOPMENT DATA

PUMP TYPE:	PUMP RATE: GPM
DEVELOPMENT TIME: MINS.	VOLUME PUMPED: GALS.

GEOLOGIC DESCRIPTION / REMARKS	SOIL CLASSIFICATION
0-14' Dark brown, very fine grained Sand, highly organic 14-19' Green/Grey Fg. Sand - Wet.	

REFERENCE BORING LOG:

Appendix D

Field Testing Results

- Testing Log
- Backfill/Base Rock Subgrade Compaction Tests
- Concrete Slump, Compressive Strength, and Air Entrainment Tests

Testing Log

Contract Number: N62467-98-D-0995			CTO No.:0002	CTO Title: Day Tank Biosparge/Vapor Collection System			Location: NAS Cecil Field, Jacksonville, FL.
A	B	C	D	E	F	G	H
Spec Section and Paragraph	Test Required	Tested By	Test Location	Frequency	Date(s) Test Made	Test Results	Remarks
01012, 1.2.3 d	Pipe Pressure Test	OES/EESI	Biosparge/VCS Underground Piping	6	01/19/00 01/26/01 02/03/01	pass	all zones held 100 psi air pressure for 1 hour
02220, 1.2.2 a	Backfill Compaction Tests	Ellis and Associates	Underground Pipe Trenches	9	01/20/00 01/27/00 01/28/00 02/04/00 02/10/00	>95%	varying degrees of compaction achieved, all greater than 95%
03302, 1.2.2 a	Slump Tests	Ellis and Associates	Vaults	2	01/28/00 02/08/00	4" 3"	
03302, 1.2.2 b	Air Content	Ellis and Associates	Vaults	2	01/28/00 02/08/00	3.7% 3.8%	
03302, 1.2.2 c	Compressive Strength Test	Ellis and Associates	Vaults	2	01/21/00	Pass	
03302, 1.2.2 a	Slump Tests	Ellis and Associates	Treatment Pad	1	01/21/00	3.5"	
03302, 1.2.2 b	Air Content	Ellis and Associates	Treatment Pad	1	01/21/00	3.5%	
03302, 1.2.2 c	Compressive Strength Test	Ellis and Associates	Treatment Pad	1	01/21/00	Pass	

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 4 A
LAB NO: 2-308
DATE: 02/28/2000
0.5/0.0/000

REPORT OF: COMPRESSIVE STRENGTH OF CONCRETE CYLINDERS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc. DATE MOLDED: 01/21/2000

REPORTED TO: Engineered Environmental Solutions, Inc. DATE RECEIVED: 01/25/2000
129 S W 15th Street
Deerfield Beach, FL 33441

POUR LOCATION: Day Tank #1 Pad
SPEC. REQUIREMENTS: 3000 psi @ 28 days
WEATHER: Warm AIR TEMP: 65°F CONCRETE TEMP: 72°F
CONCRETE SUPPLIER: CSR Rinker TRUCK NO: 7909 TICKET NO: 5320392
SIZE OF LOAD/ON PROJECT: 10 TIME CONCRETE SAMPLED: 2:00 BATCHED: 1:30
SPECIMENS MOLDED BY: W. Jackson ENTRAINED AIR: P 3.5% SLUMP: 3.50"
SPECIMENS MOLDED IN ACCORDANCE TO ASTM C 31: Yes CONCRETE MIX #: 1164318
SPECIMENS INITIALLY CURED IN ACCORDANCE TO ASTM C 31: Yes
SPECIMENS TESTED IN ACCORDANCE TO ASTM C 39: Yes

NOTES: STANDBY TIME: 0.5 HOURS

SPECIMEN	TYPE FRACTURE	DIAMETER (in.)	AREA (sq.in.)	DATE TESTED	AGE (days)	TOTAL LOAD (lbs.)	UNIT LOAD (psi)	TESTED BY	RPT#
		6.00	28.27	01/28/2000	7	42,000	1490	GL	4
		5.99	28.18	02/18/2000	28	92,150	3270	DW	4A
		6.00	28.27	02/18/2000	28	95,600	3380	DW	4A

DISTRIBUTION: JEE/jj
2cc: Client

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

John E. Ellis, II, P.E.
Senior Engineer

Ellis & Associates inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 7 A
LAB NO: 2-432
DATE: 03/01/2000

Received
MAR - 6 2000
E.E.S.I.

REPORT OF: COMPRESSIVE STRENGTH OF CONCRETE CYLINDERS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

DATE MOLDED: 01/28/2000

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

DATE RECEIVED: 02/02/2000

POUR LOCATION: Vapor Extraction Recovery Well Vaults #1-11

SPEC. REQUIREMENTS: 3000 psi @ 28 days

WEATHER: Cloudy AIR TEMP: 45°F CONCRETE TEMP: 62°F

CONCRETE SUPPLIER: CSR Rinker TRUCK NO: 4005 TICKET NO: 5320582

SIZE OF LOAD/ON PROJECT: 6 TIME CONCRETE SAMPLED: 11:09 am BATCHED: 10:15 am

SPECIMENS MOLDED BY: J. Schramm ENTRAINED AIR: R 3.7% SLUMP: 4.0"

SPECIMENS MOLDED IN ACCORDANCE TO ASTM C 31: Yes CONCRETE MIX #: 1164318

SPECIMENS INITIALLY CURED IN ACCORDANCE TO ASTM C 31: Yes

SPECIMENS TESTED IN ACCORDANCE TO ASTM C 39: Yes

SPECIMEN	TYPE FRACTURE	DIAMETER (in.)	AREA (sq.in.)	DATE TESTED	AGE (days)	TOTAL LOAD (lbs.)	UNIT LOAD (psi)	TESTED BY	RPT#
		5.99	28.18	02/04/2000	7	37,800	1340	WM	7
		5.99	28.18	02/25/2000	28	90,100	3200	WM	7A
		5.99	28.18	02/25/2000	28	112,150	3980	WM	7A
				02/25/2000	HOLD				


Cone (a)


Cone/Split (b)


Cone/Shear (c)


Shear (d)


Columnar (e)

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

John E. Ellis, II, P.E.
Senior Engineer

DISTRIBUTION: JEE/sb
2cc: Client

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 9 A
LAB NO: 2-652
DATE: 03/08/2000
2.75/0.0/000

REPORT OF: COMPRESSIVE STRENGTH OF CONCRETE CYLINDERS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc. DATE MOLDED: 02/08/2000

REPORTED TO: Engineered Environmental Solutions, Inc. DATE RECEIVED: 02/14/2000
129 S W 15th Street
Deerfield Beach, FL 33441

POUR LOCATION: Vaults, Alley, East and West Trenches
SPEC. REQUIREMENTS: 3000 psi @ 28 days
WEATHER: Partly Cloudy, Cool AIR TEMP: 59°F CONCRETE TEMP: 63°F
CONCRETE SUPPLIER: CSR Rinker TRUCK NO: 8316 TICKET NO: 5619426
SIZE OF LOAD/ON PROJECT: 10 of 17 TIME CONCRETE SAMPLED: 3:00 BATCHED: 2:05
SPECIMENS MOLDED BY: D. Wright ENTRAINED AIR: R 3.8% SLUMP: 3.0"
SPECIMENS MOLDED IN ACCORDANCE TO ASTM C 31: Yes CONCRETE MIX #: 1164318
SPECIMENS INITIALLY CURED IN ACCORDANCE TO ASTM C 31: Yes
SPECIMENS TESTED IN ACCORDANCE TO ASTM C 39: Yes

NOTES: STANDBY TIME: 2.75 HOURS

SPECIMEN	TYPE FRACTURE	DIAMETER (in.)	AREA (sq.in.)	DATE TESTED	AGE (days)	TOTAL LOAD (lbs.)	UNIT LOAD (psi)	TESTED BY	RPT#
		5.98	28.09	02/15/2000	7	46,300	1650	DW	9
		5.97	27.99	03/07/2000	28	84,250	3010	BK	9A
				03/07/2000	HOLD				


Cone (a)

Cone/Split (b)

Cone/Shear (c)

Shear (d)

Columnar (e)

DISTRIBUTION: JEE/sb
2cc: Client

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

John E. Ellis, II, P.E.
Senior Engineer

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

1408

Received
JAN 28 2000
E.E.S.I.

PROJECT NO: 00-2071
REPORT NO: 1
LAB NO: 1-188
DATE: 01/24/2000

REPORT OF: MOISTURE DENSITY RELATIONSHIP OF SOILS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

LOCATION: Stockpile

MATERIAL: Gray Fine Sand

SPECIFICATIONS: AASHTO T180

DATE SAMPLED: 01/14/2000

DATE TESTED: 01/17/2000

MAXIMUM DRY DENSITY: 107.4 P.C.F.

OPTIMUM MOISTURE: 15.5%

SAMPLED BY: H. Dassinger

INSPECTED BY: R. Kelley

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

DISTRIBUTION: JEE/sb
2cc: Client

John E. Ellis, II, P.E.
Senior Engineer

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 3
LAB NO: 2-246
DATE: 02/03/2000

REPORT OF: MOISTURE DENSITY RELATIONSHIP OF SOILS AND PERCENT FINES CONTENT

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

LOCATION: Stockpile

MATERIAL: Limerock

SPECIFICATIONS: AASHTO T180

DATE SAMPLED: 01/20/2000

DATE TESTED: 01/20/2000

MAXIMUM DRY DENSITY: 119.7 P.C.F.

OPTIMUM MOISTURE: 11.6%

PERCENT FINES CONTENT: 17.2% (ASTM D 1140)

SAMPLED BY: W. Morphew

INSPECTED BY: L. Fearns

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

DISTRIBUTION: JEE/sb
2cc: Client

John E. Ellis, II, P.E.
Senior Engineer

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 2
LAB NO: 2
DATE: 01/26/2000

REPORT OF: IN-PLACE DENSITY TESTS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

TEST DATE: 01/20/2000 TEST METHOD: ASTM D-2922
LOCATION: Day Tank # 1 Area
COURSE: Base
MATERIAL: Limerock

LOCATION	SPEC. REQ.	DRY DEN. (lbs./cu.ft)	MAX DEN. (lbs./cu.ft)	% MAX DRY DENSITY	MOISTURE PERCENT
Day Tank #1 Area, North	95	115.2	119.7	96	12.1
Day Tank #1 Area, Middle	95	115.3	119.7	96	10.1
Day Tank #1 Area, South	95	115.3	119.7	96	11.3

THE ABOVE TESTS MEET SPECIFICATION REQUIREMENTS UNLESS OTHERWISE INDICATED.

INSPECTED BY: W. Jackson

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

DISTRIBUTION: JEE/sb
2cc: Client

John E. Ellis, II, P.E.
Senior Engineer

FILL MATERIAL
TRENCH FOR BP WELLS 14-16
VEWs 7-8
EQUIPMENT PAD LOCATION (SOUTH)

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 5
LAB NO: 2
DATE: 02/03/2000
0.5/0.0/000

REPORT OF: IN-PLACE DENSITY TESTS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

TEST DATE: 01/27/2000 TEST METHOD: ASTM D-2922
LOCATION: Over Wells
COURSE: Original
MATERIAL: Gray Fine Sand

LOCATION	SPEC. REQ.	DEPTH	DRY DEN. (lbs./cu.ft)	MAX DEN. (lbs./cu.ft)	% MAX DRY DENSITY	MOISTURE PERCENT
ALLOY TRENCH						
South End	95	0-6"	102.2	107.4	95	7.8
North End	95	0-6"	102.1	107.4	95	10.5

THE ABOVE TESTS MEET SPECIFICATION REQUIREMENTS UNLESS OTHERWISE INDICATED.

INSPECTED BY: M. Conner

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

DISTRIBUTION: JEE/sb
2cc: Client

John E. Ellis, II, P.E.
Senior Engineer

FILL MATERIAL
TRENCH FOR BP WELLS 1-4
VEWs 1&2

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 6
LAB NO: 2
DATE: 02/03/2000

REPORT OF: IN-PLACE DENSITY TESTS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

TEST DATE: 01/28/2000 TEST METHOD: ASTM D-2922
LOCATION: Trench
COURSE: Base
MATERIAL: Limerock

LOCATION	SPEC. REQ.	DRY DEN. (lbs./cu.ft)	MAX DEN. (lbs./cu.ft)	% MAX DRY DENSITY	MOISTURE PERCENT
North End	95	117.5	119.7	98	12.7
South End	95	119.7	119.7	100	14.0

THE ABOVE TESTS MEET SPECIFICATION REQUIREMENTS UNLESS OTHERWISE INDICATED.

INSPECTED BY: H. Scott

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

DISTRIBUTION: JEE/sb
2cc: Client

John E. Ellis, II, P.E.
Senior Engineer

BASE ROCK
TRENCH FOR BP WELLS 1-4
VEWS 1&2

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

1408

Received
FEB 2 2 2000
E.E.S.I.

PROJECT NO: 00-2071
REPORT NO: 8
LAB NO: 2
DATE: 02/16/2000

REPORT OF: IN-PLACE DENSITY TESTS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

TEST DATE: 02/10/2000 TEST METHOD: ASTM D-2922
LOCATION: Trenches
COURSE: Base
MATERIAL: Limerock

LOCATION	SPEC. REQ.	DRY DEN. (lbs./cu.ft)	MAX DEN. (lbs./cu.ft)	% MAX DRY DENSITY	MOISTURE PERCENT
West Trench	95	117.7	119.7	98	9.6
Southwest Trench	95	118.1	119.7	99	10.4
East Trench	95	116.9	119.7	98	8.9
North Trench	95	117.4	119.7	98	10.1

THE ABOVE TESTS MEET SPECIFICATION REQUIREMENTS UNLESS OTHERWISE INDICATED.

INSPECTED BY: T. Lee

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

DISTRIBUTION: JEE/jlj
2cc: Client

John E. Ellis, II, P.E.
Senior Engineer

BASE ROCK
TRENCH FOR BP WELLS 5-13
VEWS 3-6

Ellis & Associates Inc.
7064 Davis Creek Road
Jacksonville, FL 32256
(904) 880-0960 Office
(904) 880-0970 Fax Number

PROJECT NO: 00-2071
REPORT NO: 10
LAB NO: 2-039
DATE: 02/21/2000

REPORT OF: IN-PLACE DENSITY TESTS

PROJECT: Cecil Field, Job #99-1408

CONTRACTOR: Engineered Environmental Solutions, Inc.

REPORTED TO: Engineered Environmental Solutions, Inc.
129 S W 15th Street
Deerfield Beach, FL 33441

TEST DATE: 02/04/2000 TEST METHOD: ASTM D-2922
LOCATION: Over 2" Pipe, East and West Trench
COURSE: Fill
MATERIAL: Gray Fine Sand

LOCATION	SPEC. REQ.	DEPTH	DRY DEN. (lbs./cu.ft)	MAX DEN. (lbs./cu.ft)	% MAX DRY DENSITY	MOISTURE PERCENT
East End	95	0-12"	102.9	107.4	96	11.7
Northeast End	95	0-12"	102.8	107.4	96	12.1
Center	95	0-12"	103.0	107.4	96	11.3
West	95	0-12"	102.5	107.4	95	11.7

THE ABOVE TESTS MEET SPECIFICATION REQUIREMENTS UNLESS OTHERWISE INDICATED.

INSPECTED BY: W. Jackson

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

DISTRIBUTION: JEE/sb
2cc: Client

John E. Ellis, II, P.E.
Senior Engineer

FILL MATERIAL
TRENCH FOR BP WELLS 5-13
VEWS 3-6

Appendix E

Waste Disposal Information

- Waste Characterization Sampling and Analyses Log
- Transportation and Disposal Log
- Waste Disposal Facility Permits
- Waste Disposal Profiles with Analytical Data
- Manifests (provided following applicable Waste Disposal Profile)
- Certificates of Disposal

Sampling and Analyses Log

CTO No	Project Name	Project Number	Company/ Sampler	Lab	Sample No.	Matrix	Sample Type	Description/ Location	Collect Date	Collect Time	Analyses Required
0002	NAS Cecil Field	149152	Omega	Accutest	002-DC-S-0120	Soil	Waste Characterization	Day Tank 1	01/20/00	15:30	8260B; 8270C; 6010A/7470A; 8151; 8081A; 8082; SW 846 - Chapter 7; 1010
0002	NAS Cecil Field	149152	Omega	Accutest	DW-W-0208-00	Water	Waste Characterization	Day Tank 1	02/08/00	16:00	8260B, 8260C, 8081A, 8151, 6010B, 7074A, 8082

Transportation and Disposal Log

CTO No	Project No	Project Name	Site Description	Container Type	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Load ID	Disposal Facility	Disposal Facility EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Quantity	Unit	CD Rec'd?	Certif of Disp/ Destruc Date	Disp Treatment/ Method	Comments/ Notes
0002	149152	NAS Cecil Field	Day Tank 1	Roll-Off	CP 5551	Waste Management	Robbie D. Wood	2/14/00	ALD67138891	1	Chesser Island Road Landfill	N/A	Soil	Nonhaz	N/A	2/14/00	61445	12.58	tons	yes	2/14/00	Landfill	Drill Cuttings
0002	149152	NAS Cecil Field	Day Tank 1	Tanker	MPA-J021132	IWS	Barnett Transportation	5/12/00	ALD983186412	2	IWS	FLD98928484	Water	Nonhaz	N/A	5/12/00	23923	1200	gal	yes	5/12/00	Treated/ Discharged	Development/ Decon Water

Department of
Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

March 2, 2000

Mr. James Dale O'Conner
Industrial Water Services, Inc.
P O Box 43369
Jacksonville FL 32203

BE IT KNOWN THAT

Industrial Water Services, Inc.
1640 Talleyrand Ave
Jacksonville

IS HEREBY REGISTERED AS A USED OIL

Processor, and Marketer

pursuant to Chapter 62-710, Florida Administrative Code (F.A.C.)

The Department of Environmental Protection hereby issues

Registration Number **FLD981928484** on March 2, 2000

This registration will expire on June 30, 2001

This certificate documents receipt of your annual registration and annual report. It shall be displayed in a prominent place at your facility. This certificate and your cancelled check are your receipts.

Richard C. Neves
Environmental Specialist
Hazardous Waste Management Section

State of Georgia

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION

SOLID WASTE HANDLING PERMIT

Permit No: 024-006 D (SL) Major Modification No. 1 Date: May 20, 1998

Permittee: Name: Chesser Island Road Landfill, Inc.

Address: Bay Meadows Road Suite 302

Jacksonville, Florida 32256

In accordance with the provisions of the Georgia Comprehensive Solid Waste Management Act, and the Rules promulgated pursuant thereto, this permit is issued for the following operation:

> Chesser Island Road Landfill, Inc., Municipal Solid Waste Disposal Facility, located ten (10) miles southwest of the city of Folkston, on Chesser Island Road approximately 1.1 miles east of intersection with Georgia Highway 23 and 121, Charlton County, Georgia.

This permit is conditioned upon the permittee complying with the attached conditions of operation, which are hereby made a part of this permit.

All statements and supporting data submitted to the Environmental Protection Division of the Department of Natural Resources have been evaluated, considered and relied upon in the issuance of this permit.

This permit is now in effect; however, under Georgia Law it is subject to appeal for thirty (30) days following issuance, and is subject to modification or revocation on evidence of noncompliance with any of the provisions of the Georgia Comprehensive Solid Waste Management Act, or any of the Rules promulgated pursuant thereto; or with any representation made in the above mentioned application or the statements and supporting data entered therein or attached thereto; or with any condition of this permit.

Harold F. Reheis, Director
Environmental Protection Division

State of Georgia

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION

PERMIT

SOLID WASTE HANDLING

Permit No: 024-006D(MSWL) Date: March 17, 1998

Permittee: Name: **Chesser Island Road Landfill, Inc.**

Address: **9471 Baymeadows Road, Suite 302**
Jacksonville, Florida 32256

In accordance with the provisions of the Georgia Comprehensive Solid Waste Management Act, and the Rules promulgated pursuant thereto, this permit is issued for the following operation:

Charlton County - Chesser Island Road Landfill, Inc. Municipal Solid Waste Landfill located approximately 12.1 miles southwest of Folkston, Charlton County, Georgia off Chesser Island Road and west of S.R. 121.

This permit is conditioned upon the permittee complying with the attached conditions of operation, which are hereby made a part of this permit.

All statements and supporting data submitted to the Environmental Protection Division of the Department of Natural Resources have been evaluated, considered and relied upon in the issuance of this permit.

This permit is now in effect; however, under Georgia Law it is subject to appeal for thirty (30) days following issuance, and is subject to modification or revocation on evidence of noncompliance with any of the provisions of the Georgia Comprehensive Solid Waste Management Act, or any of the Rules promulgated pursuant thereto; or with any representation made in the above mentioned application or the statements and supporting data entered therein or attached thereto; or with any condition of this permit.

Harold F. Reheis, Director
Environmental Protection Division

SIGNIFICANT INDUSTRIAL USER PERMIT
Permit Number: 019

In accordance with the provisions of JEA's Water & Sewer Regulation,

Industrial Water Services, Inc.
1640 Talleyrand Avenue

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein, into JEA's District I sewer system, in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, State and Federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit. Noncompliance with any term or condition of this permit shall constitute a violation of JEA's Water & Sewer Regulation.

The term of this permit shall begin on April 30, 1999, and shall expire at midnight on April 29, 2002.

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a renewal of permit in accordance with the requirements of JEA's Water & Sewer Regulation, not less than 30 days and not more than 90 days prior to the expiration date.

Timothy E. Perkins, P.E.
Vice President, Environmental Group

ACORD CERTIFICATE OF LIABILITY INSURANCE

CSH JR
INDUS-1

DATE (MM/DD/YY) 08/25/00

PRODUCER

OneSource Group, Inc. (jax)
6650 Southpoint Parkway #105
Jacksonville FL 32216
Phone: 904-356-7778 Fax: 904-358-8471

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED

Industrial Water Services, Inc
Mr. Charlie Dudley
P O Box 43369
Jacksonville FL 32203

INSURERS AFFORDING COVERAGE

INSURER A:	Greenwich Insurance Company
INSURER B:	Great American Insurance
INSURER C:	Zenith Insurance Company
INSURER D:	Reliance National Indemnity Co
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY [X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [ ] PRO-JECT [X] LOC	GEC0005137	08/27/00	08/27/01	EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 5,000,000 $ 50,000 $ 5,000 $ 5,000,000 $ 5,000,000 $ 5,000,000
A	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS [X] Comp Ded $500 [X] Coll Ded $500	AEC0005138	08/27/00	08/27/01	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 5,000,000 $ $ $
	GARAGE LIABILITY [ ] ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $
	EXCESS LIABILITY [ ] OCCUR [ ] CLAIMS MADE [ ] DEDUCTIBLE [ ] RETENTION $				EACH OCCURRENCE AGGREGATE	$ $ $ $ $
C C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	64627 - FLORIDA AL0000047-00 - ALABAMA	08/28/00 08/28/00	08/28/01 08/28/01	WC STATUTORY LIMITS [X] OTHER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1000000 $ 1000000 $ 1000000
D B	OTHER POLLUTION LIAB CONTRACTORS EQUIP	NTL163436402 MAC9810475	08/27/98 08/27/00	08/27/01 08/27/01	LOSS/AGGR $25K MIN	$2M/$4M PER ITEM

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

ISL&H Included under Workers Compensation Coverage

CERTIFICATE HOLDER | N | ADDITIONAL INSURED; INSURER LETTER:

PROPOSA

FOR BID PURPOSES

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

WM WASTE MANAGEMENT

GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

Service Agreement on File? ☐YES ☐NO

☐Hazardous ☒Non-Hazardous ☐TSCA

Profile Number: CP 5551

Renewal Date: 06/30/00

A. Waste Generator Information

1. Generator Name: C30/US NAVY SOUTHDIV E.F. 3. SIC Code: N/A
3. Facility Street Address: 13200 Normandy Blvd 4. Phone: (904) 777-4813
5. Facility City: Jacksonville, FL 6. State/Province: Florida
7. Zip/Postal Code: 32215 8. Generator U.S.EPA/Federal ID #: FL5170022474
9. County: Duval 10. State/Province ID #: N/A
11. Customer Name: Capital Environmental 12. Customer Phone: (330) 702-1510
13. Customer Contact: Keith Genovese 14. Customer Fax: (330) 702-1512
15. Billing Address ☐Same as above

B. Waste Stream Information

1. Description
   a. Name of Waste: Non Hazardous non Regulated Soil
   b. Process Generating Waste: Site Remediation Day Tank 1 (Drill Cuttings)

c. Color	d. Strong odor (describe):	e. Physical state @ 70°F	f. Layers	g. Free liquid range	h. pH: Range
Brown (Soil)	Petroleum odor	☒Solid ☐Liquid ☐Gas ☐Sludge ☐Other	☒Single Layer ☐Multi-layer	0 to 0 %	6 to 8 %

i. Liquid Flash Point: ☐<73°F ☐73-99°F ☐100-139°F ☐140-199°F ☐≥ 200°F ☐Not applicable

j. Chemical Composition (List all constituents (including halogenated organics, debris, and UHC's) present in any concentration and submit representative analysis):

Constituents	Concentration Range	Constituents	Concentration Range
Soil	100%		

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

k. ☐Oxidizer ☐Pyrophoric ☐Explosive ☐Radioactive
☐Carcinogen ☐Infectious ☐Shock Sensitive ☐Water Reactive

l. Does the waste represented by this profile contain any of the carcinogens which require OSHA notification? (list in Section B.1.j) ☐YES ☒NO

m. Does the waste represented by this profile contain dioxins? (list in Section B.1.j) ☐YES ☒NO

n. Does the waste represented by this profile contain asbestos? ☐YES ☒NO
If yes ☐Friable ☐Non-friable

o. Does the waste represented by this profile contain benzene? ☐YES ☒NO
If yes, concentration _____ ppm
Is the waste subject to the benzene waste operations NESHAP?

p. Is the waste subject to RCRA Subpart CC controls? ☐YES ☒NO
If no, does the waste meet the organic LDR Exemption? ☐YES ☒NO
If no, does the waste contain <500 ppmw volatile organic (VO)? ☒YES ☐NO
Volatile organic concentration _____ ppmw ☒YES ☐NO

q. Does the waste contain any Class I or Class II ozone-depleting substances? ☐YES ☒NO

r. Does the waste contain debris? (list in Section B.1.j) ☐YES ☒NO

s. Is the waste subject to controls as a Group 1 wastewater or residual under the HON? ☐YES ☒NO
If yes, is it a Table 8 _____ or Table 9 _____ compound?

2. Quantity of Waste
Estimated Annual Volume Apx. 20 ☐Tons ☒Yards ☐Drums ☐Other (specify) _____

3. Shipping Information
a. Packaging:
☒Bulk Solid; Type/Size: Roll off (20yd) ☐Bulk Liquid; Type/Size: _____
☐Drum: Type; Size: _____ ☐Other: _____

WM
WASTE MANAGEMENT

GENERATOR'S WASTE PROFILE SHEET
PLEASE PRINT IN INK OR TYPE

- b. Shipping Frequency: Units ______ Per: ☐Month ☐Quarter ☐Year ☒One time ☐Other ______
- c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip d, e, and f) ..... ☐YES ☒NO
- d. Reportable Quantity (lbs.; kgs.): ______ e. Hazard Class/ID #: ______
- f. USDOT Shipping Name: ______
- g. Personal Protective Equipment Requirements: ______
- h. Transporter/Transfer Station: ______

C. Generator's Certification (Please check appropriate responses, sign, and date below.)

1. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2 ...... ☐YES ☒NO
   - a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D, F, K, P, U) ______
   - b. If a characteristic hazardous waste, do underlying hazardous constituents (UHCs) apply? (If yes, list in Section B.1.) ...... ☐YES ☐NO
   - c. Does this waste contain debris? (If yes, list size and type in Chemical Composition - B.1.) ...... ☐YES ☐NO
2. Is this a state hazardous waste? ...... ☐YES ☒NO
   Identify ALL state hazardous waste codes ______
3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up? ...... ☐YES ☐NO
   If yes, attach Record of Decision (ROD), 104/106 or 122 order of court order that governs the clean-up activity. For state mandated clean-up provide relevant documentation.
4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission? ...... ☐YES ☒NO
5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (If yes, list in Chemical Composition - B.1.) ...... ☐YES ☒NO
   - a. If yes, were the PCBs imported into the U.S.? ...... ☐YES ☐NO
6. Do the waste profile sheet and all attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? ...... ☒YES ☐NO
7. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor? ...... ☒YES ☐NO

☒Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. I authorize WM to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: X [signature] Title: Envir. Director
Name (Type or Print): David J. Harzek Company Name: U.S. [illegible] Date: 02/09/00
☐Check if additional information is attached. Indicate the number of attached pages ______

D. WM Management's Decision — FOR WM USE ONLY

1. Management Method ■Landfill ☐Non-hazardous Solidification ☐Bioremediation ☐Incineration ☐Hazardous Stabilization ☐Other (Specify)
2. Proposed Ultimate Management Facility: Chess-Island
3. Precautions, Special Handling Procedures, or Limitation on Approval: (1) No free liquids allowed
4. Waste Form ______ 5. Source ______ 6. System Type ______

Special Waste Decision ■Approved ☐Disapproved
Salesperson's Signature: ______ Date: ______
Division Approval Signature (Optional): ______ Date: ______
Special Waste Approvals Person Signature: [signature] Date: 02/11/00

Sample Summary

Omega Environmental Sciences

Cecil Field-~~Grey Sites~~ (FW) DAY TANK 1 Job No: F5691
Project No: 99130

Sample Number	Collected: Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F5691-1	01/20/00	15:30	SKO	01/21/00	SO	Soil	002-BC-S-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF

Report of Analysis

Client Sample ID:	002-DC-S-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF		
Lab Sample ID:	F5691-1	**Date Sampled:**	01/20/00
Matrix:	SO - Soil	**Date Received:**	01/21/00
Method:	SW846 8260B	**Percent Solids:**	81.3
Project:	Cecil Field-Grey Sites DAY TANK

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H005791.D	10	01/27/00	CJP	01/27/00	MS457	VH31
Run #2							

VOA TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
71-43-2	Benzene	ND	D018	0.50	0.020	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.020	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.020	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.020	mg/l	
75-35-4	1,1-Dichloroethylene	ND	D029	0.70	0.020	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.020	mg/l	
106-46-7	p-Dichlorobenzene	ND	D027	7.5	0.020	mg/l	
78-93-3	Methyl ethyl ketone	ND	D035	200	0.10	mg/l	
127-18-4	Tetrachloroethylene	ND	D039	0.70	0.020	mg/l	
79-01-6	Trichloroethylene	ND	D040	0.50	0.020	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		80-120%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	92%		69-128%

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	002-DC-S-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF		
Lab Sample ID:	F5691-1	Date Sampled:	01/20/00
Matrix:	SO - Soil	Date Received:	01/21/00
Method:	SW846 8270C	Percent Solids:	81.3
Project:	Cecil Field-Envy Sites DAY TANK 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W000905.D	1	01/31/00	ME	01/31/00	OP1255	SW60
Run #2							

ABN TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.050	mg/l	
	3&4-Methylphenol	ND	D024	200	0.050	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.25	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.050	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.050	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.050	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.050	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.050	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		21-100%
4165-62-2	Phenol-d5	34%		10-94%
118-79-6	2,4,6-Tribromophenol	86%		10-123%
4165-60-0	Nitrobenzene-d5	98%		35-114%
321-60-8	2-Fluorobiphenyl	85%		43-116%
1718-51-0	Terphenyl-d14	83%		33-141%

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	002-DC-S-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF		
Lab Sample ID:	F5691-1	**Date Sampled:**	01/20/00
Matrix:	SO - Soil	**Date Received:**	01/21/00
Method:	SW846 8151	**Percent Solids:**	81.3
Project:	Cecil Field-Grey-Site DAY TANK 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF28544.D	1	01/28/00	ANJ	01/27/00	N:OP6708	N:GEF1664
Run #2							

Herbicide TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
94-75-7	2,4-D	ND	D016	10	0.020	mg/l	
93-72-1	2,4,5-TP (Silvex)	ND	D017	1.0	0.0040	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	74%		40-150%
19719-28-9	2,4-DCAA	100%		40-150%

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	002-DC-S-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF		
Lab Sample ID:	F5691-1	**Date Sampled:**	01/20/00
Matrix:	SO - Soil	**Date Received:**	01/21/00
Method:	SW846 8081A	**Percent Solids:**	81.3
Project:	Cecil Field-Grey Sites DAY TANK 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST02894.D	1	01/31/00	SKW	01/31/00	OP1256	GST109
Run #2							

Pesticide TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	D013	0.40	0.0010	mg/l	
12789-03-6	Chlordane	ND	D020	0.030	0.0050	mg/l	
72-20-8	Endrin	ND	D012	0.020	0.0010	mg/l	
76-44-8	Heptachlor	ND	D031	0.0080	0.0010	mg/l	
1024-57-3	Heptachlor epoxide	ND	D031	0.0080	0.0010	mg/l	
72-43-5	Methoxychlor	ND	D014	10	0.0025	mg/l	
8001-35-2	Toxaphene	ND	D015	0.50	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%		50-128%
2051-24-3	Decachlorobiphenyl	72%		11-157%

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	002-DC-S-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF		
Lab Sample ID:	F5691-1	**Date Sampled:**	01/20/00
Matrix:	SO - Soil	**Date Received:**	01/21/00
Method:	SW846 8082	**Percent Solids:**	81.3
Project:	Cecil Field-Grey Site PAY TANK 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB11992.D	1	01/28/00	SKW	01/26/00	OP1244	GAB453
Run #2							

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	41	ug/kg	
11104-28-2	Aroclor 1221	ND	41	ug/kg	
11141-16-5	Aroclor 1232	ND	41	ug/kg	
53469-21-9	Aroclor 1242	ND	41	ug/kg	
12672-29-6	Aroclor 1248	ND	41	ug/kg	
11097-69-1	Aroclor 1254	ND	41	ug/kg	
11096-82-5	Aroclor 1260	ND	41	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	102%		50-144%
2051-24-3	Decachlorobiphenyl	91%		10-180%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	002-DC-S-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF		
Lab Sample ID:	F5691-1	**Date Sampled:**	01/20/00
Matrix:	SO - Soil	**Date Received:**	01/21/00
		Percent Solids:	81.3
Project:	Cecil Field-Grey Siter MW TANK I		

Metals Analysis, TCLP Leachate

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method
Arsenic	<0.50	D004	5.0	0.50	mg/l	1	01/28/00	01/31/00	JK	SW846 6010A
Barium	<1.0	D005	100	1.0	mg/l	1	01/28/00	01/31/00	JK	SW846 6010A
Cadmium	<0.050	D006	1.0	0.050	mg/l	1	01/28/00	01/31/00	JK	SW846 6010A
Chromium	<0.050	D007	5.0	0.050	mg/l	1	01/28/00	01/31/00	JK	SW846 6010A
Lead	<0.50	D008	5.0	0.50	mg/l	1	01/28/00	01/31/00	JK	SW846 6010A
Mercury	<0.0020	D009	0.20	0.0020	mg/l	1	01/29/00	01/29/00	SNL	SW846 7470A
Selenium	<0.50	D010	1.0	0.50	mg/l	1	01/28/00	01/31/00	JK	SW846 6010A
Silver	<0.050	D011	5.0	0.050	mg/l	1	01/28/00	01/31/00	JK	SW846 6010A

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Report of Analysis

Client Sample ID:	002-DC-8-0120/ 5 POINT COMPOSITE OF DRILL CUTTING ROLL OFF		
Lab Sample ID:	F5691-1	**Date Sampled:**	01/20/00
Matrix:	SO - Soil	**Date Received:**	01/21/00
		Percent Solids:	81.3
Project:	Cecil Field-Grey Sites RAD DAY TANK 1		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Corrosivity as pH	7.4			1	02/01/00 JK	SW846 CHAP7
Cyanide Reactivity	[illegible]	1.8	mg/kg	1	02/01/00 JK	SW846 CHAP7
Ignitability (Flashpoint)	[illegible]	212	Deg. F	1	02/01/00 JK	SW846 1010
Solids, Percent	[illegible]		%	1	01/24/00 JK	EPA 160.3 M
Sulfide Reactivity	[illegible]	62	mg/kg	1	02/01/00 EP	SW846 CHAP7

RL = Reporting Limit

CTO-2 6.06.1.4.1

ACCUTEST

CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Omegasys

ADDRESS: 4661 Hamermill Rd. - Suite B

CITY, STATE, ZIP: Tucker GA 30519

SEND REPORT TO:
PHONE # 770-621-9414 (Rob Weitte)

FACILITY INFORMATION

PROJECT NAME: CCI/JA Jones - DayTank 1

LOCATION: Cecil Field - Jackson

PROJECT NO.: 99130

FAX # 770-934-2451

ANALYTICAL INFORMATION

MATRIX CODES

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HCl	NaOH	HNO3	H2SO4	NONE	Ice	TCLP Voa SW846 1311 8260B	TCLP SVOC SW846 1311 8270	Ignit, Corr, + Reactivity	Total PCB SW846 8082	TCLP Pest/Herb SW846 8081	TCLP metals SW846 6010B	TCLP 7470A					LAB USE ONLY
002-DC-S-01/20-00	5 point composite of Drillcutting Roll off	01/20/00	1530	SKG	Soil	4						✓	✓	✓	✓	✓	✓	✓	✓					

DATA TURNAROUND INFORMATION

☐ STANDARD
☐ 48 HOUR RUSH
☐ 24 HOUR EMERGENCY
☒ OTHER Seven Day

APPROVED BY:

EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☐ OTHER (SPECIFY)

COMMENTS/REMARKS

7 Day Turn Around Time

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. [signature]	1-18-2000 1600	1.	2.		2.
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE ____ C

TC# 9680

MPA# J02113.2

Profile Form Code

Material Profile Form

Mailing Address:
P.O. Box 43389
Jacksonville, FL 32203

Sample Shipping Address:
1705 Dallas Street
Jacksonville, FL 32206

(800) 447-8582
(904) 354-0372
Lab Fax (904) 353-4033

APPROVED
5/9/00

Account Manager ROB WRIGHT Date: 05/02/00 ~~02/29/00~~ SMS

CUSTOMER INFORMATION

Customer Name OMEGA ASWS

Customer Address 4661 Hammermill Rd.

City Tucker State GA Zip 30084

Billing Address (if other than above) SAME

City State Zip

Technical Contact ROB WRIGHT Phone (770)621-9414

GENERATOR INFORMATION

Generator Name Columbus Southwestern Energy SIC code

Name of Material or Waste NON HAZARDOUS NON Regulated water

Estimated Volume 1500 Gallons Unit(s) S. Per Time One time only ✓

Process Generating Waste or Material (Give a detailed description of the process that generates the waste or material. Include all constituents, all steps in process, approximate age, and suspected or known contaminants).

well Development water & Decon water from Day Tank One

PHYSICAL CHARACTERISTICS

1. Color clear
2. Does the waste have a strong incidental odor? ____ Yes ✓ No
   If yes, describe _____
3. Physical State @ 70F: ____ Solid ____ Liquid ✓ Semi-solid ____ Powder ____ Other _____
4. Layers: ____ Multi-layered ____ Bi-layered ✓ Single Phased
5. pH 6.8
6. Flash Point >212
7. Total Suspended Solids _____ %
8. Viscosity ✓ Very thin ____ Thin ____ Moderate ____ Thick ____ Does not pour
9. Total organic halogens ____ less than 1000 mg/l ____ greater than 1000 mg/l Actual _____ mg/l

[redacted]

SAMPLE SOURCE (Drum, Tank, Lagoon, Etc.) Is this form accompanied by a sample? _____

REPRESENTATIVE SAMPLE CERTIFICATION

1. Print sampler's name: Steve Grant Sample date: 03/08/00
2. Sampler's title: Sample Technician
3. Sampler's Employer (if other than the generator): Omegaenv
   The sampler's signature certifies that any sample submitted is representative of the material described above pursuant to 40 CFR 261.20 (c) or equivalent rules.
4. Sampler's signature Steven K Grant

GENERATOR CERTIFICATION

By signing this profile, you certify that:

- You are the generator or the duly authorized representative of the generator.
- This waste is not a hazardous waste as defined by USEPA Federal regulation, unless noted above.
- This waste does not contain regulated materials or regulated concentrations of PCBs (polychlorinated biphenyls).
- This sheet contains true and accurate descriptions of the material and all relevant information in your possession regarding known or suspected hazards have been disclosed.
- The analytical data presented herein or attached hereto were derived from testing a representative sample taken in accordance with 40 CFR 261.20 (c) or equivalent rules.
- If any changes occur in the character of the material, you will notify the Contractor prior to the Contractor removing the material.
- If the material is PCW, there are no hazardous constituents above those found in the source of the PCW.

Signature: _____ Date: 5/4/00
Print Name: DAVID F. KRUZICKI
Title: ENVIR. ENG.

Check one. If more than one is checked, please explain.

___ Used Oil

Constituent	On-spec level	Actual Level (mg/l)
Arsenic	5 mg/l Maximum	
Cadmium	2 mg/l Maximum	
Chromium	10 mg/l Maximum	
Lead	100 mg/l Maximum	
Flash Point	100°F Minimum	
Total Halogens	1000 mg/l Maximum	

Is the used oil paraffin based? ___ If yes, attach a MSD sheet on the product. PCB Level ___

Has the used oil been mixed with a hazardous waste? ___ If yes, fill out the waste section below.

___ Petroleum Contact Water (PCW)

Is the product leaded? N/A Lead level N/D mg/l %Sludge ___

Has this material been mixed with a hazardous waste? ___ Waste codes ___

Note: It is the generator's responsibility to determine if PCW management is acceptable in their state. IWS facilities are properly permitted for PCW management.

___ Virgin Product

Name of Material ___

Please attach the MSDS for this product. Has the product been mixed with a hazardous waste? ___

Waste Codes ___

___ Waste

Is the waste hazardous by:	Ignitability? (regulated under 40 CFR Part 261.21)	___ Yes ✓ No
	Corrosivity?(regulated under 40 CFR Part 261.22)	___ Yes ✓ No
	Reactivity?(regulated under 40 CFR Part 261.23)	___ Yes ✓ No
Does the waste contain:	Herbicides or pesticides?	___ Yes ✓ No
	Dioxins?	___ Yes ✓ No
	Radioactive substances?	___ Yes ✓ No
	Domestic wastes?	___ Yes ✓ No
	Biohazardous materials?	___ Yes ✓ No
Is this a hazardous waste (F, K, U, or P listed) as defined under 40 CFR Subpart D		___ Yes ✓ No

If yes to the above, identify listing ___

Is the waste derived from outside an underground storage tank (UST)? ___ Yes ✓ No

If yes to the above, list materials stored ___

If waste is derived from a fuel, is it leaded? JPS / not Leaded

CONSTITUENTS (Fill out the sections below if waste was checked above)

1. Does the waste contain any constituents listed in the table below? If yes, check the contaminants that apply and the level present in the waste.
How was level determined? ___ Laboratory Analysis ___ Generator Knowledge
Laboratory analysis is ___ TCLP ___ Total ___ Generator Knowledge

EPA #	Name	Regulatory Level (mg/l)	Amount Present (mg/l)
D004	ARSENIC	5.0	NA
D005	BARIUM	100.0	
D018	BENZENE	0.5	
D006	CADMIUM	1.0	
D019	CARBON TETRACHLORIDE	0.5	
D020	CHLORDANE	0.03	
D021	CHLOROBENZENE	100.0	
D022	CHLOROFORM	6.0	
D007	CHROMIUM	5.0	
D024	CRESOL (M)	200.0	
D023	CRESOL (O)	200.0	
D025	CRESOL (P)	200.0	
D026	CRESOL	200.0	
D016	2,4-D	10.0	
D027	1,4-DICHLOROBENZENE	7.5	
D028	1,2-DICHLOROETHANE	0.5	
D029	1,1-DICHLOROETHYLENE	0.7	
D030	2,4-DINITROTOLUENE	0.13	
D012	ENDRIN	0.02	
D031	HEPTACHLOR	0.008	
D032	HEXACHLOROBENZENE	0.13	
D033	HEXACHLOROBUTADIENE	0.5	
D034	HEXACHLOROETHANE	3.0	
D008	LEAD	5.0	
D013	LINDANE	0.4	
D009	MERCURY	0.2	
D014	METHOXYCHLOR	10.0	
D035	METHYL ETHYL KETONE	200.0	
D036	NITROBENZENE	2.0	
D037	PENTACHLOROPHENOL	100.0	
D038	PYRIDINE	5.0	
D010	SELENIUM	1.0	
D011	SILVER	5.0	
D039	TETRACHLOROETHYLENE	0.7	
D015	TOXAPHENE	0.5	
D040	TRICHLOROETHYENE	0.5	
D041	2,4,5-TRICHLOROPHENOL	400.0	
D042	2,4,6-TRICHLOROPHENOL	2.0	
D017	2,4,5-TP (SILVEX)	1.0	
D043	VINYL CHLORIDE	0.2	

2. Does the waste contain any of the following? (provide concentration if known):

PCBs	___ less than 2 mg/l	___ greater than 2 mg/l	___ Actual mg/l
Cyanides	___ less than 250 mg/l	___ greater than 250 mg/l	___ Actual mg/l

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]
2. Page 1 of 1
3. Generator's Name and Mailing Address: CSO/USNAVY SDIV NAVFAC ENG [illegible] 32215
4. Generator's Phone: [illegible]
5. Transporter 1 Company Name: RoBBie D. Wood, INc
6. US EPA ID Number: [illegible]
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: CHESSER ISLANd Road Landfill [illegible] FOLKSTON, GA [illegible]
10. US EPA ID Number: [illegible] 024-0006

A. Manifest Number: WMNA 61445

B. State Generator's ID:

C. State Transporter's ID:

D. Transporter's Phone: [illegible] 7457

E. State Transporter's ID:

F. Transporter's Phone:

G. State Facility's ID:

H. Facility's Phone: [illegible]

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON HAZARDOUS NON Regulated Soil FROM DAY TANK 1 WM Profile # CP5551	[illegible]	[illegible]	[illegible]	[illegible]	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill__________ Solidification__________

Bio Remediation__________

K. Disposal Location

Cell Level

Grid

15. Special Handling Instructions and Additional Information

Tic # 18245 67880 42720 25160 Net

Purchase Order # EMERGENCY CONTACT:

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name: DAVID J. KRUZICK. Signature "On behalf of" [signature] Month Day Year 12 20 00

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: JOE RAvenell Signature: JOE Ravenell Month Day Year 12 21 00

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Month Day Year

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certificateion of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name: Pat Barnard Signature: [signature] Month Day Year 12 14 9[illegible]

WM - NHM 1- 5/97

#5 FACILITY USE ONLY

ACCUTEST.

03/30/00

Technical Report for

Omega Environmental Sciences

Cecil Field-~~Grey Sites~~ Day Tank 1

Day Tank 1

Accutest Job Number: F5865

Report to:

Omega Environmental Sciences
4661 Hammermill Road
Suite B
Tucker, GA 30084

ATTN: Rob Wright

Total number of pages in report: 12

Harry Behzadi, Ph.D.
Laboratory Director

ACCUTEST.

Sample Summary

Omega Environmental Sciences

Job No: F5865

Cecil Field-~~Grey Sites~~ Day Tank 1
Project No: Day Tank 1

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
F5865-1	02/08/00	16:00	SKG	02/10/00	AQ	Ground Water	DW-W-0208-00

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field-~~Grey Sites~~ Dry Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K005299.D	1	02/14/00	CJP	n/a	n/a	VK135
Run #2							

VOA TCL List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field-~~Grey Sites~~ Day Tank 1		

VOA TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		69-128%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

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N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
Method:	SW846 3510C/8270C	**Percent Solids:**	n/a
Project:	Cecil Field-~~Grey Sites~~ Bay Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L003073.D	1	02/15/00	ME	02/14/00	OP1297	SL203
Run #2							

ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	25	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	25	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	5.0	ug/l	
	3&4-Methylphenol	ND	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	ug/l	
87-86-5	Pentachlorophenol	ND	25	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	ug/l	
83-32-9	Acenaphthene	ND	5.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	ug/l	
120-12-7	Anthracene	ND	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	ug/l	
86-74-8	Carbazole	ND	5.0	ug/l	
218-01-9	Chrysene	ND	5.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ug/l	

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
Method:	SW846 3510C/8270C	**Percent Solids:**	n/a
Project:	Cecil Field-~~Grey Sites~~ Bay Tank 1		

ABN TCL List

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	ug/l	
86-73-7	Fluorene	ND	5.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	ug/l	
129-00-0	Pyrene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		21-100%
4165-62-2	Phenol-d5	19%		10-94%
118-79-6	2,4,6-Tribromophenol	68%		10-123%
4165-60-0	Nitrobenzene-d5	83%		35-114%
321-60-8	2-Fluorobiphenyl	75%		43-116%
1718-51-0	Terphenyl-d14	80%		33-141%

ND = Not detected
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
Method:	SW846 8151	**Percent Solids:**	n/a
Project:	Cecil Field-~~Grey Sites~~ Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF28688.D	1	02/15/00	ANJ	02/14/00	N:OP6863	N:GEF1671
Run #2							

Herbicide List

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	0.50	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.10	ug/l	
93-76-5	2,4,5-T	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	115%		40-150%
19719-28-9	2,4-DCAA	139%		40-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
Method:	SW846 3510C/8081A	**Percent Solids:**	n/a
Project:	Cecil Field-~~Grey Sites~~ Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST03209.D	1	02/15/00	SKW	02/14/00	OP1286	GST119
Run #2	ST03232.D	1	02/16/00	SKW	02/14/00	OP1286	GST120

Pesticide TCL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND [a]	0.050	ug/l	
319-84-6	alpha-BHC	ND [a]	0.050	ug/l	
319-85-7	beta-BHC	ND [a]	0.050	ug/l	
319-86-8	delta-BHC	ND [a]	0.050	ug/l	
58-89-9	gamma-BHC (Lindane)	ND [a]	0.050	ug/l	
5103-71-9	alpha-Chlordane	ND [a]	0.10	ug/l	
5103-74-2	gamma-Chlordane	ND [a]	0.10	ug/l	
60-57-1	Dieldrin	ND [a]	0.050	ug/l	
72-54-8	4,4'-DDD	ND [a]	0.10	ug/l	
72-55-9	4,4'-DDE	ND [a]	0.10	ug/l	
50-29-3	4,4'-DDT	ND [a]	0.10	ug/l	
72-20-8	Endrin	ND [a]	0.10	ug/l	
1031-07-8	Endosulfan sulfate	ND [a]	0.10	ug/l	
7421-93-4	Endrin aldehyde	ND [a]	0.10	ug/l	
53494-70-5	Endrin ketone	ND [a]	0.10	ug/l	
959-98-8	Endosulfan-I	ND [a]	0.050	ug/l	
33213-65-9	Endosulfan-II	ND [a]	0.10	ug/l	
76-44-8	Heptachlor	ND [a]	0.050	ug/l	
1024-57-3	Heptachlor epoxide	ND [a]	0.050	ug/l	
72-43-5	Methoxychlor	ND [a]	0.20	ug/l	
8001-35-2	Toxaphene	ND [a]	2.5	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%	78%	50-128%
2051-24-3	Decachlorobiphenyl	66%	100%	11-157%

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
Method:	SW846 8082	**Percent Solids:**	n/a
Project:	Cecil Field-~~Grey Sites~~ Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AB12312.D	1	02/15/00	SKW	02/14/00	OP1285	GAB465
Run #2							

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		50-128%
2051-24-3	Decachlorobiphenyl	101%		11-157%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
		Percent Solids:	n/a
Project:	Cecil Field ~~Grey Sites~~ Pay Tank 1		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method
Aluminum	37700	200	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Antimony	<5.0	5.0	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Arsenic	<10	10	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Barium	<200	200	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Beryllium	<5.0	5.0	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Cadmium	<5.0	5.0	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Calcium	85400	1000	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Chromium	28.4	10	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Cobalt	<50	50	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Copper	<25	25	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Iron	3800	300	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Lead	17.1	5.0	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Magnesium	<5000	5000	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Manganese	113	15	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Mercury	<1.0	1.0	ug/l	1	02/16/00	02/16/00	SJL	EPA 245.1
Nickel	<40	40	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Potassium	<5000	5000	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Selenium	<10	10	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Silver	<10	10	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Sodium	14200	5000	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Thallium	<10	10	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Vanadium	64.5	50	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A
Zinc	26.2	20	ug/l	1	02/11/00	02/17/00	JK	SW846 6010A

RL = Reporting Limit

ACCUTEST

Report of Analysis

Client Sample ID:	DW-W-0208-00		
Lab Sample ID:	F5865-1	**Date Sampled:**	02/08/00
Matrix:	AQ - Ground Water	**Date Received:**	02/10/00
		Percent Solids:	n/a
Project:	Cecil Field-~~Grey Sites~~ Day Tank 1		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Corrosivity as pH	6.8			1	02/23/00 JK	SW846 CHAP7
Cyanide Reactivity	<1.5	1.5	mg/l	1	02/23/00 JK	SW846 CHAP7
Ignitability (Flashpoint)	>212	212	Deg. F	1	02/23/00 JK	SW846 1010
Sulfide Reactivity	<50	50	mg/l	1	02/22/00 JK	SW846 CHAP7

RL = Reporting Limit

CHAIN OF CUSTODY

ACCUTEST

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION

NAME: Omegasys
ADDRESS: 4661 Hammermill RD.
CITY: Tucker STATE: GA ZIP: 30084
SEND REPORT TO:
PHONE #: Rob Wright (770) 621-9414

FACILITY INFORMATION

PROJECT NAME: Cecil Field (DAY, TANK 1)
LOCATION: 13200 Normandy BLVD Jacksonville, FL 32215
PROJECT NO.:
FAX #: (770) ~~621~~ 270-5809

ANALYTICAL INFORMATION

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION HCl	PRESERVATION NaOH	PRESERVATION HNO3	PRESERVATION H2SO4	PRESERVATION NONE	8260B	5-6 Pesticide	Herb / Pest 8081A/8151	Total Metals 6010B, 7470A	8270C	TCLP 1010/20 9040B	PCB 8082				LAB USE ONLY
002-DT1-DW-W-0208-00		~~02/08/00~~	1600	SK6	Water	8			✓			✓		✓	✓	✓	✓	✓			FS	0605-1

MATRIX CODES
DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SO - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

DATA TURNAROUND INFORMATION

- ☐ STANDARD
- ☐ 48 HOUR RUSH
- ☐ 24 HOUR EMERGENCY
- ☐ OTHER _____

APPROVED BY: _____

EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED

DATA DELIVERABLE INFORMATION

- ☐ STANDARD
- ☐ COMMERCIAL "B"
- ☐ DISK DELIVERABLE
- ☐ STATE FORMS
- ☐ OTHER (SPECIFY) _____

COMMENTS/REMARKS

7 DAY TURN AROUND TIME

Temp - 5.5°C

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESION, INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
1. [signature]	02/08/00 1800	1. Fed Ex	2.		2. Abby Wilson 2100
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:
3.		3.	4.		4. 120
RELINQUISHED BY:	DATE TIME:	RECEIVED BY:	SEAL #	PRESERVE WHERE APPLICABLE ☐	ON ICE ☐ TEMPERATURE _____ C
5.		5.			

QA/QC DATA

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2485
Matrix Type: AQUEOUS

Methods: SW846 6010A
Units: ug/l

Prep Date: 02/11/00

Metal	RL	IDL	MB raw	final
Aluminum	200	30	-0.40	<200
Antimony	5.0	2.39	-0.86	<5.0
Arsenic	10	3.45	0.010	<10
Barium	200	.39	0.030	<200
Beryllium	5.0	.363	-0.23	<5.0
Cadmium	5.0	.33	0.19	<5.0
Calcium	1000	19.5	7.5	<1000
Chromium	10	.637	1.0	<10
Cobalt	50	.797	0.080	<50
Copper	25	.747	0.45	<25
Iron	300	32	3.3	<300
Lead	5.0	1.59	2.4	<5.0
Magnesium	5000	17.6	1.2	<5000
Manganese	15	.16	0.070	<15
Molybdenum	50	.68	anr	
Nickel	40	1	-0.26	<40
Potassium	5000	28.2	446	<5000
Selenium	10	2.04	1.2	<10
Silver	10	.963	0.0	<10
Sodium	5000	153	-240	<5000
Thallium	10	2.69	3.9	<10
Tin	50	2.23	anr	
Vanadium	50	.717	0.11	<50
Zinc	20	.83	0.62	<20

Associated samples MP2485: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2485
Matrix Type: AQUEOUS

Methods: SW846 6010A
Units: ug/l

Prep Date: 02/11/00 02/11/00

Metal	F5865-1 Original	DUP	RPD	QC Limits	F5865-1 Original	MS	Spikelot MPFLICP	% Rec	QC Limits
Aluminum	37700	37500	0.5	0-20	37700	72800	29000	121.0N	80-120
Antimony	2.8	0.0	200.0(a)	0-20	2.8	999	1000	99.6	80-120
Arsenic	8.2	10.9	28.3 (a)	0-28	8.2	4290	4000	107.0	72-110
Barium	71.8	73.3	2.1	0-14	71.8	3970	4000	97.4	64-116
Beryllium	0.0	0.0	NC	0-20	0.0	107	100	107.0	80-120
Cadmium	0.52	0.79	41.2 (a)	0-16	0.52	109	100	108.5	64-120
Calcium	85400	85000	0.5	0-20	85400	108000	25000	90.4	80-120
Chromium	28.4	28.4	0.0	0-33	28.4	454	400	106.4	66-119
Cobalt	3.4	3.8	11.1	0-20	3.4	1040	1000	103.7	80-120
Copper	8.1	9.0	10.5	0-39	8.1	526	500	103.6	65-124
Iron	3800	3770	0.8	0-20	3800	33800	27000	111.1	80-120
Lead	17.1	18.8	9.5	0-44	17.1	1090	1000	107.3	60-127
Magnesium	3460	3460	0.0	0-20	3460	30300	25000	107.4	80-120
Manganese	113	114	0.9	0-20	113	1160	1000	104.7	80-120
Molybdenum	anr								
Nickel	12.5	16.0	24.6	0-30	12.5	1090	1000	107.8	71-119
Potassium	4090	4300	5.0	0-20	4090	28700	25000	98.4	80-120
Selenium	8.1	11.1	31.2 (a)	0-28	8.1	4370	4000	109.0	65-115
Silver	0.0	0.0	NC	0-21	0.0	100	100	100.0	63-123
Sodium	14200	14400	1.4	0-20	14200	40500	25000	105.2	80-120
Thallium	0.0	0.0	NC	0-20	0.0	4370	4000	109.2	80-120
Tin	anr								
Vanadium	64.5	64.6	0.2	0-20	64.5	1090	1000	102.6	80-120
Zinc	26.2	46.5	55.8*	0-31	26.2	1110	1000	108.4	69-120

Associated samples MP2485: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2485
Matrix Type: AQUEOUS

Methods: SW846 6010A
Units: ug/l

Prep Date: 02/11/00

Metal	F5865-1 Original	MSD	Spikelot MPFLICP	% Rec	QC Limits
Aluminum	37700	74900	29000	128.3N	80-120
Antimony	2.8	1010	1000	100.7	80-120
Arsenic	8.2	4310	4000	107.5	72-110
Barium	71.8	4020	4000	98.7	64-116
Beryllium	0.0	108	100	108.0	80-120
Cadmium	0.52	109	100	108.5	64-120
Calcium	85400	109000	25000	94.4	80-120
Chromium	28.4	460	400	107.9	66-119
Cobalt	3.4	1050	1000	104.7	80-120
Copper	8.1	536	500	105.6	65-124
Iron	3800	34300	27000	113.0	80-120
Lead	17.1	1100	1000	108.3	60-127
Magnesium	3460	30600	25000	108.6	80-120
Manganese	113	1170	1000	105.7	80-120
Molybdenum					
Nickel	12.5	1100	1000	108.8	71-119
Potassium	4090	29500	25000	101.6	80-120
Selenium	8.1	4380	4000	109.3	65-115
Silver	0.0	101	100	101.0	63-123
Sodium	14200	41200	25000	108.0	80-120
Thallium	0.0	4410	4000	110.2	80-120
Tin					
Vanadium	64.5	1100	1000	103.6	80-120
Zinc	26.2	1110	1000	108.4	69-120

Associated samples MP2485: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2485
Matrix Type: AQUEOUS

Methods: SW846 6010A
Units: ug/l

Prep Date: 02/11/00

Metal	BSP Result	Spikelot MPFLICP	% Rec	QC Limits
Aluminum	29400	29000	101.4	80-120
Antimony	1060	1000	106.0	80-120
Arsenic	4220	4000	105.5	80-120
Barium	3840	4000	96.0	80-120
Beryllium	108	100	108.0	80-120
Cadmium	110	100	110.0	80-120
Calcium	26900	25000	107.6	80-120
Chromium	429	400	107.2	80-120
Cobalt	1050	1000	105.0	80-120
Copper	503	500	100.6	80-120
Iron	29800	27000	110.4	80-120
Lead	1090	1000	109.0	80-120
Magnesium	26700	25000	106.8	80-120
Manganese	1060	1000	106.0	80-120
Molybdenum				
Nickel	1100	1000	110.0	80-120
Potassium	23000	25000	92.0	80-120
Selenium	4320	4000	108.0	80-120
Silver	98.4	100	98.4	80-120
Sodium	25600	25000	102.4	80-120
Thallium	4410	4000	110.2	80-120
Tin				
Vanadium	1020	1000	102.0	80-120
Zinc	1110	1000	111.0	80-120

Associated samples MP2485: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2485
Matrix Type: AQUEOUS

Methods: SW846 6010A
Units: ug/l

Prep Date: 02/11/00

Metal	F5865-1 Original	SDL 1:5	RPD	QC Limits
Aluminum	37700	37600	0.2	0-10
Antimony	2.75	0.00	100.0(a)	0-10
Arsenic	8.18	17.7	116.0(a)	0-10
Barium	71.8	80.9	12.7*	0-10
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.520	0.00	100.0(a)	0-10
Calcium	85400	83900	1.7	0-10
Chromium	28.4	30.2	6.5	0-10
Cobalt	3.44	8.40	144.2(a)	0-10
Copper	8.08	12.9	59.5 (a)	0-10
Iron	3800	4150	9.1	0-10
Lead	17.1	25.9	51.2 (a)	0-10
Magnesium	3460	3480	0.3	0-10
Manganese	113	114	0.8	0-10
Molybdenum	anr			
Nickel	12.5	18.3	45.8 (a)	0-10
Potassium	4090	5510	34.6*	0-10
Selenium	8.14	24.0	194.7(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	14200	13500	4.9	0-10
Thallium	0.00	37.6		0-10
Tin	anr			
Vanadium	64.5	68.1	5.6	0-10
Zinc	26.2	42.6	62.5 (a)	0-10

Associated samples MP2485: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2490
Matrix Type: AQUEOUS

Methods: EPA 245.1, SW846 7470A
Units: ug/l

Prep Date: 02/16/00

Metal	RL	IDL	MB raw	final
Mercury	1.0	.06	0.01	<1.0

Associated samples MP2490: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2490
Matrix Type: AQUEOUS

Methods: EPA 245.1, SW846 7470A
Units: ug/l

Prep Date: 02/16/00 02/16/00

Metal	F5887-1 Original	DUP	RPD	QC Limits	F5887-1 Original	MS	Spikelot HGFLWS	% Rec	QC Limits
Mercury	0	0	NC	0-6.6	0	2.8	3	95.3	78-118

Associated samples MP2490: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1285-MB	AB12210.D	1	02/09/00	SKW	02/09/00	OP1285	GAB461

The QC reported here applies to the following samples: **Method:** EPA 608

OP1285-MS, OP1285-MSD

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	94%	50-128%
2051-24-3	Decachlorobiphenyl	91%	11-157%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1286-MB	ST03152.D	1	02/10/00	SKW	02/09/00	OP1286	GST117

The QC reported here applies to the following samples: **Method:** SW846 3510C/8081A

OP1286-MS, OP1286-MSD

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.050	ug/l	
319-84-6	alpha-BHC	ND	0.050	ug/l	
319-85-7	beta-BHC	ND	0.050	ug/l	
319-86-8	delta-BHC	ND	0.050	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	ug/l	
5103-71-9	alpha-Chlordane	ND	0.10	ug/l	
5103-74-2	gamma-Chlordane	ND	0.10	ug/l	
60-57-1	Dieldrin	ND	0.050	ug/l	
72-54-8	4,4'-DDD	ND	0.10	ug/l	
72-55-9	4,4'-DDE	ND	0.10	ug/l	
50-29-3	4,4'-DDT	ND	0.10	ug/l	
72-20-8	Endrin	ND	0.10	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.10	ug/l	
7421-93-4	Endrin aldehyde	ND	0.10	ug/l	
53494-70-5	Endrin ketone	ND	0.10	ug/l	
959-98-8	Endosulfan-I	ND	0.050	ug/l	
33213-65-9	Endosulfan-II	ND	0.10	ug/l	
76-44-8	Heptachlor	ND	0.050	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	ug/l	
72-43-5	Methoxychlor	ND	0.20	ug/l	
8001-35-2	Toxaphene	ND	2.5	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	91%	50-128%
2051-24-3	Decachlorobiphenyl	54%	11-157%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK135-MB	K005276.D	1	02/11/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

VK135-BS2, F5780-4MS, F5780-4MSD

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK135-MB	K005276.D	1	02/11/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

VK135-BS2, F5780-4MS, F5780-4MSD

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	80-120%
17060-07-0	1,2-Dichloroethane-D4	107%	69-128%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	108%	80-120%

Blank Spike Summary

Job Number: F5865
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: OMEGATUC: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6863-BS2	EF28686.D	1	02/15/00	LAG	02/14/00	OP6863	GEF1671

The QC reported here applies to the following samples: **Method:** SW846 8151

F5865-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	5	4.8	96	50-150 [a]
93-72-1	2,4,5-TP (Silvex)	5	5.4	108	50-150 [a]
93-76-5	2,4,5-T	5	4.4	88	50-150 [a]

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	111%	40-150%
19719-28-9	2,4-DCAA	85%	40-150%

(a) Advisory control limits.

Method Blank Summary

Job Number: F5865
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: OMEGATUC: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6863-MB2	EF28685.D	1	02/15/00	LAG	02/14/00	OP6863	GEF1671

The QC reported here applies to the following samples: **Method:** SW846 8151

F5865-1

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	0.50	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.10	ug/l	
93-76-5	2,4,5-T	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	115%	40-150%
19719-28-9	2,4-DCAA	142%	40-150%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: OMEGATUC: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6863-MS	EF28633.D	1	02/08/00	LAG	02/07/00	OP6863	GEF1668
OP6863-MSD	EF28634.D	1	02/08/00	LAG	02/07/00	OP6863	GEF1668
F5780-2	EF28632.D	1	02/08/00	LAG	02/07/00	OP6863	GEF1668

The QC reported here applies to the following samples: **Method:** SW846 8151

F5865-1

CAS No.	Compound	F5780-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	ND		10	11.9	119	11.6	116	2	50-150/30 [a]
93-72-1	2,4,5-TP (Silvex)	ND		10	12.0	120	13.0	130	8	50-150/30 [a]
93-76-5	2,4,5-T	ND		10	11.1	111	11.6	116	4	50-150/30 [a]

CAS No.	Surrogate Recoveries	MS	MSD	F5780-2	Limits
19719-28-9	2,4-DCAA	102%	104%	146%	40-150%
19719-28-9	2,4-DCAA	78%	71%	218%* [b]	40-150%

(a) Advisory control limits.
(b) Second column is used as confirmation only.

Method Blank Summary

Job Number: F5865
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: OMEGATUC: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP6863-MB1	EF28630.D	1	02/08/00	LAG	02/07/00	OP6863	GEF1668

The QC reported here applies to the following samples: **Method:** SW846 8151

OP6863-MS, OP6863-MSD

CAS No.	Compound	Result	RL	Units	Q
94-75-7	2,4-D	ND	0.50	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.10	ug/l	
93-76-5	2,4,5-T	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	133%	40-150%
19719-28-9	2,4-DCAA	173%*a	40-150%

(a) Second column is used as confirmation only.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2490
Matrix Type: AQUEOUS

Methods: EPA 245.1, SW846 7470A
Units: ug/l

Prep Date: 02/16/00

Metal	F5887-1 Original	MSD	Spikelot HGFLWS	% Rec	QC Limits
Mercury	0	3.0	3	100.2	78-118

Associated samples MP2490: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

QC Batch ID: MP2490
Matrix Type: AQUEOUS

Methods: EPA 245.1, SW846 7470A
Units: ug/l

Prep Date: 02/16/00

Metal	BSP Result	Spikelot HGFLWS	% Rec	QC Limits
Mercury	3.0	3	100.3	80-120

Associated samples MP2490: F5865-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

Analyte	Batch ID	RL	MB Result	Units	BSP %Recov	QC Limits
Cyanide Reactivity	GP1342	1.5	<1.5	mg/l		
Sulfide Reactivity	GP1341	50	<50	mg/l		

Associated Samples:
Batch GP1341: F5865-1
Batch GP1342: F5865-1

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F5865
Account: OMEGATUC - Omega Environmental Sciences
Project: OMEGATUC1701 - Cecil Field-Grey Sites

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN5131	F5850-1		8.4	8.4		0-%
Cyanide Reactivity	GP1342	F5850-1	mg/l	<1.5	<1.5	0.0	0-20%
Ignitability (Flashpoint)	GN5134	F5850-1	Deg. F	210	210	0.0	0-2.5%
Sulfide Reactivity	GP1341	F5850-1	mg/l	<50	<50	0.0	0-5.8%

Associated Samples:
Batch GN5131: F5865-1
Batch GN5134: F5865-1
Batch GP1341: F5865-1
Batch GP1342: F5865-1

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1285-BS2	AB12310.D	1	02/15/00	SKW	02/14/00	OP1285	GAB465

The QC reported here applies to the following samples: **Method:** EPA 608

F5865-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	4	4.3	108	66-152
11096-82-5	Aroclor 1260	4	4.9	122	44-146

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	106%	50-128%
2051-24-3	Decachlorobiphenyl	113%	11-157%

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1286-BS2	ST03208.D	1	02/15/00	SKW	02/14/00	OP1286	GST119

The QC reported here applies to the following samples: **Method:** SW846 3510C/8081A

F5865-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.5	0.40	80	34-132
319-84-6	alpha-BHC	0.5	0.46	92	39-132
319-85-7	beta-BHC	0.5	0.42	84	28-151
319-86-8	delta-BHC	0.5	0.37	74	16-137
58-89-9	gamma-BHC (Lindane)	0.5	0.45	90	31-127
5103-71-9	alpha-Chlordane	0.5	0.41	82	45-128
5103-74-2	gamma-Chlordane	0.5	0.41	82	45-128
60-57-1	Dieldrin	0.5	0.39	78	43-139
72-54-8	4,4'-DDD	0.5	0.43	86	35-138
72-55-9	4,4'-DDE	0.5	0.39	78	45-139
50-29-3	4,4'-DDT	0.5	0.37	74	33-149
72-20-8	Endrin	0.5	0.35	70	35-151
1031-07-8	Endosulfan sulfate	0.5	0.41	82	26-140
7421-93-4	Endrin aldehyde	0.5	0.086	17	10-141
53494-70-5	Endrin ketone	0.5	0.43	86	35-141
959-98-8	Endosulfan-I	0.5	0.39	78	55-143
33213-65-9	Endosulfan-II	0.5	0.43	86	35-186
76-44-8	Heptachlor	0.5	0.38	76	31-125
1024-57-3	Heptachlor epoxide	0.5	0.41	82	69-129
72-43-5	Methoxychlor	0.5	0.37	74	40-138

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	94%	50-128%
2051-24-3	Decachlorobiphenyl	89%	11-157%

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1286-BS2	ST03231.D	1	02/16/00	SKW	02/14/00	OP1286	GST120

The QC reported here applies to the following samples: **Method:** SW846 3510C/8081A

F5865-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.5	0.44	88	34-132
319-84-6	alpha-BHC	0.5	0.48	96	39-132
319-85-7	beta-BHC	0.5	0.46	92	28-151
319-86-8	delta-BHC	0.5	0.41	82	16-137
58-89-9	gamma-BHC (Lindane)	0.5	0.48	96	31-127
5103-71-9	alpha-Chlordane	0.5	0.48	96	45-128
5103-74-2	gamma-Chlordane	0.5	0.46	92	45-128
60-57-1	Dieldrin	0.5	0.46	92	43-139
72-54-8	4,4'-DDD	0.5	0.51	102	35-138
72-55-9	4,4'-DDE	0.5	0.46	92	45-139
50-29-3	4,4'-DDT	0.5	0.51	102	33-149
72-20-8	Endrin	0.5	0.44	88	35-151
1031-07-8	Endosulfan sulfate	0.5	0.50	100	26-140
7421-93-4	Endrin aldehyde	0.5	0.098	20	10-141
53494-70-5	Endrin ketone	0.5	0.55	110	35-141
959-98-8	Endosulfan-I	0.5	0.47	94	55-143
33213-65-9	Endosulfan-II	0.5	0.51	102	35-186
76-44-8	Heptachlor	0.5	0.43	86	31-125
1024-57-3	Heptachlor epoxide	0.5	0.47	94	69-129
72-43-5	Methoxychlor	0.5	0.52	104	40-138

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	95%	50-128%
2051-24-3	Decachlorobiphenyl	120%	11-157%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1285-MB2	AB12309.D	1	02/15/00	SKW	02/14/00	OP1285	GAB465

The QC reported here applies to the following samples: **Method:** EPA 608

F5865-1

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	106%	50-128%
2051-24-3	Decachlorobiphenyl	40%	11-157%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1286-MB2	ST03207.D	1	02/15/00	SKW	02/14/00	OP1286	GST119

The QC reported here applies to the following samples: **Method:** SW846 3510C/8081A

F5865-1

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.050	ug/l	
319-84-6	alpha-BHC	ND	0.050	ug/l	
319-85-7	beta-BHC	ND	0.050	ug/l	
319-86-8	delta-BHC	ND	0.050	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	ug/l	
5103-71-9	alpha-Chlordane	ND	0.10	ug/l	
5103-74-2	gamma-Chlordane	ND	0.10	ug/l	
60-57-1	Dieldrin	ND	0.050	ug/l	
72-54-8	4,4'-DDD	ND	0.10	ug/l	
72-55-9	4,4'-DDE	ND	0.10	ug/l	
50-29-3	4,4'-DDT	ND	0.10	ug/l	
72-20-8	Endrin	ND	0.10	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.10	ug/l	
7421-93-4	Endrin aldehyde	ND	0.10	ug/l	
53494-70-5	Endrin ketone	ND	0.10	ug/l	
959-98-8	Endosulfan-I	ND	0.050	ug/l	
33213-65-9	Endosulfan-II	ND	0.10	ug/l	
76-44-8	Heptachlor	ND	0.050	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	ug/l	
72-43-5	Methoxychlor	ND	0.20	ug/l	
8001-35-2	Toxaphene	ND	2.5	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	93%	50-128%
2051-24-3	Decachlorobiphenyl	36%	11-157%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1286-MB2	ST03230.D	1	02/16/00	SKW	02/14/00	OP1286	GST120

The QC reported here applies to the following samples: **Method:** SW846 3510C/8081A

F5865-1

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.050	ug/l	
319-84-6	alpha-BHC	ND	0.050	ug/l	
319-85-7	beta-BHC	ND	0.050	ug/l	
319-86-8	delta-BHC	ND	0.050	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	ug/l	
5103-71-9	alpha-Chlordane	ND	0.10	ug/l	
5103-74-2	gamma-Chlordane	ND	0.10	ug/l	
60-57-1	Dieldrin	ND	0.050	ug/l	
72-54-8	4,4'-DDD	ND	0.10	ug/l	
72-55-9	4,4'-DDE	ND	0.10	ug/l	
50-29-3	4,4'-DDT	ND	0.10	ug/l	
72-20-8	Endrin	ND	0.10	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.10	ug/l	
7421-93-4	Endrin aldehyde	ND	0.10	ug/l	
53494-70-5	Endrin ketone	ND	0.10	ug/l	
959-98-8	Endosulfan-I	ND	0.050	ug/l	
33213-65-9	Endosulfan-II	ND	0.10	ug/l	
76-44-8	Heptachlor	ND	0.050	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	ug/l	
72-43-5	Methoxychlor	ND	0.20	ug/l	
8001-35-2	Toxaphene	ND	2.5	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	92%	50-128%
2051-24-3	Decachlorobiphenyl	50%	11-157%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1285-MS	AB12218.D	1	02/09/00	SKW	02/09/00	OP1285	GAB461
OP1285-MSD	AB12219.D	1	02/09/00	SKW	02/09/00	OP1285	GAB461
F5817-2	AB12213.D	1	02/09/00	SKW	02/09/00	OP1285	GAB461

The QC reported here applies to the following samples: **Method:** EPA 608

F5865-1

CAS No.	Compound	F5817-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		8	7.7	96	7.5	94	3	66-152/20
11096-82-5	Aroclor 1260	ND		8	8.3	104	8.1	101	2	44-146/24

CAS No.	Surrogate Recoveries	MS	MSD	F5817-2	Limits
877-09-8	Tetrachloro-m-xylene	94%	90%	90%	50-128%
2051-24-3	Decachlorobiphenyl	93%	88%	73%	11-157%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1286-MS	ST03159.D	1	02/10/00	SKW	02/09/00	OP1286	GST117
OP1286-MSD	ST03160.D	1	02/10/00	SKW	02/09/00	OP1286	GST117
F5822-1	ST03154.D	1	02/10/00	SKW	02/09/00	OP1286	GST117

The QC reported here applies to the following samples: **Method:** SW846 3510C/8081A

F5865-1

CAS No.	Compound	F5822-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	ND		0.5	0.40	80	0.38	76	5	34-132/20
319-84-6	alpha-BHC	ND		0.5	0.45	90	0.43	86	4	39-132/23
319-85-7	beta-BHC	ND		0.5	0.40	80	0.40	80	0	28-151/28
319-86-8	delta-BHC	ND		0.5	0.37	74	0.38	76	3	16-137/27
58-89-9	gamma-BHC (Lindane)	ND		0.5	0.44	88	0.43	86	2	31-127/24
5103-71-9	alpha-Chlordane	ND		0.5	0.38	76	0.40	80	5	45-128/18
5103-74-2	gamma-Chlordane	ND		0.5	0.38	76	0.40	80	5	45-128/18
60-57-1	Dieldrin	ND		0.5	0.37	74	0.38	76	3	43-139/24
72-54-8	4,4'-DDD	ND		0.5	0.39	78	0.43	86	10	35-138/26
72-55-9	4,4'-DDE	ND		0.5	0.37	74	0.39	78	5	45-139/24
50-29-3	4,4'-DDT	ND		0.5	0.30	60	0.36	72	18	33-149/29
72-20-8	Endrin	ND		0.5	0.41	82	0.44	88	7	35-151/27
1031-07-8	Endosulfan sulfate	ND		0.5	0.37	74	0.42	84	13	26-140/28
7421-93-4	Endrin aldehyde	ND		0.5	0.067	13	0.073	15	8	10-141/27
53494-70-5	Endrin ketone	ND		0.5	0.35	70	0.40	80	13	35-141/27
959-98-8	Endosulfan-I	ND		0.5	0.38	76	0.39	78	2	55-143/22
33213-65-9	Endosulfan-II	ND		0.5	0.38	76	0.41	82	8	35-186/45
76-44-8	Heptachlor	ND		0.5	0.38	76	0.37	74	3	31-125/20
1024-57-3	Heptachlor epoxide	ND		0.5	0.40	80	0.41	82	2	69-129/13
72-43-5	Methoxychlor	ND		0.5	0.32	64	0.38	76	17	40-138/25

CAS No.	Surrogate Recoveries	MS	MSD	F5822-1	Limits
877-09-8	Tetrachloro-m-xylene	91%	88%	86%	50-128%
2051-24-3	Decachlorobiphenyl	68%	84%	81%	11-157%

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-BS	L003062.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	9.3	19	10-125
95-57-8	2-Chlorophenol	50	43.1	86	33-125
59-50-7	4-Chloro-3-methyl phenol	50	46.2	92	56-125
120-83-2	2,4-Dichlorophenol	50	46.2	92	52-125
105-67-9	2,4-Dimethylphenol	50	38.2	76	10-143
51-28-5	2,4-Dinitrophenol	50	38.8	78	27-128
534-52-1	4,6-Dinitro-o-cresol	50	44.0	88	54-140
95-48-7	2-Methylphenol	50	39.0	78	28-125
	3&4-Methylphenol	50	37.1	74	28-125
88-75-5	2-Nitrophenol	50	48.8	98	35-127
100-02-7	4-Nitrophenol	50	20.6	41	19-125
87-86-5	Pentachlorophenol	50	44.8	90	33-157
108-95-2	Phenol	50	19.2	38	19-125
95-95-4	2,4,5-Trichlorophenol	50	46.6	93	60-125
88-06-2	2,4,6-Trichlorophenol	50	46.8	94	61-125
83-32-9	Acenaphthene	50	46.5	93	57-125
208-96-8	Acenaphthylene	50	51.0	102	59-125
120-12-7	Anthracene	50	48.2	96	64-125
56-55-3	Benzo(a)anthracene	50	50.1	100	60-125
50-32-8	Benzo(a)pyrene	50	51.7	103	66-115
205-99-2	Benzo(b)fluoranthene	50	52.6	105	39-126
191-24-2	Benzo(g,h,i)perylene	50	48.0	96	39-146
207-08-9	Benzo(k)fluoranthene	50	49.8	100	45-127
101-55-3	4-Bromophenyl phenyl ether	50	39.5	79	44-125
85-68-7	Butyl benzyl phthalate	50	41.6	83	46-142
100-51-6	Benzyl Alcohol	50	38.7	77	28-125
91-58-7	2-Chloronaphthalene	50	44.4	89	49-125
106-47-8	4-Chloroaniline	50	48.3	97	12-125
86-74-8	Carbazole	50	51.6	103	58-125
218-01-9	Chrysene	50	48.5	97	62-125
111-91-1	bis(2-Chloroethoxy)methane	50	43.5	87	38-128
111-44-4	bis(2-Chloroethyl)ether	50	43.2	86	43-145
108-60-1	bis(2-Chloroisopropyl)ether	50	37.0	74	19-125
7005-72-3	4-Chlorophenyl phenyl ether	50	41.3	83	53-125
95-50-1	1,2-Dichlorobenzene	50	39.3	79	36-125
541-73-1	1,3-Dichlorobenzene	50	36.3	73	31-125

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-BS	L003062.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-46-7	1,4-Dichlorobenzene	50	39.0	78	33-125
121-14-2	2,4-Dinitrotoluene	50	50.2	100	56-145
606-20-2	2,6-Dinitrotoluene	50	48.7	97	54-145
91-94-1	3,3'-Dichlorobenzidine	50	40.2	80	12-146
53-70-3	Dibenzo(a,h)anthracene	50	37.0	74	39-134
132-64-9	Dibenzofuran	50	44.4	89	60-125
84-74-2	Di-n-butyl phthalate	50	46.9	94	56-125
117-84-0	Di-n-octyl phthalate	50	51.4	103	30-133
84-66-2	Diethyl phthalate	50	47.8	96	51-125
131-11-3	Dimethyl phthalate	50	45.6	91	15-125
117-81-7	bis(2-Ethylhexyl)phthalate	50	45.8	92	34-142
206-44-0	Fluoranthene	50	52.1	104	56-135
86-73-7	Fluorene	50	47.1	94	58-125
118-74-1	Hexachlorobenzene	50	43.4	87	50-145
87-68-3	Hexachlorobutadiene	50	30.8	62	28-125
77-47-4	Hexachlorocyclopentadiene	50	15.8	32	17-140
67-72-1	Hexachloroethane	50	36.6	73	18-157
193-39-5	Indeno(1,2,3-cd)pyrene	50	50.2	100	53-134
78-59-1	Isophorone	50	45.5	91	44-125
91-57-6	2-Methylnaphthalene	50	42.4	85	35-125
88-74-4	2-Nitroaniline	50	52.5	105	54-125
99-09-2	3-Nitroaniline	50	51.0	102	44-125
100-01-6	4-Nitroaniline	50	53.4	107	44-125
91-20-3	Naphthalene	50	45.5	91	22-131
98-95-3	Nitrobenzene	50	43.6	87	37-125
621-64-7	N-Nitroso-di-n-propylamine	50	43.1	86	45-125
86-30-6	N-Nitrosodiphenylamine	50	48.6	97	61-127
85-01-8	Phenanthrene	50	47.4	95	64-125
129-00-0	Pyrene	50	48.2	96	47-142
120-82-1	1,2,4-Trichlorobenzene	50	38.0	76	36-125

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	60%	21-100%
4165-62-2	Phenol-d5	38%	10-94%

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-BS	L003062.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Surrogate Recoveries	BSP	Limits
118-79-6	2,4,6-Tribromophenol	96%	10-123%
4165-60-0	Nitrobenzene-d5	103%	35-114%
321-60-8	2-Fluorobiphenyl	94%	43-116%
1718-51-0	Terphenyl-d14	98%	33-141%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-MB	L003063.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	25	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	25	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	ug/l	
95-48-7	2-Methylphenol	ND	5.0	ug/l	
	3&4-Methylphenol	ND	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	ug/l	
87-86-5	Pentachlorophenol	ND	25	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	ug/l	
83-32-9	Acenaphthene	ND	5.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	ug/l	
120-12-7	Anthracene	ND	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	ug/l	
86-74-8	Carbazole	ND	5.0	ug/l	
218-01-9	Chrysene	ND	5.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ug/l	

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-MB	L003063.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Compound	Result	RL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate [a]	5.2	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate [a]	4.3	5.0	ug/l	J
206-44-0	Fluoranthene	ND	5.0	ug/l	
86-73-7	Fluorene	ND	5.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	ug/l	
129-00-0	Pyrene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	45%	21-100%
4165-62-2	Phenol-d5	33%	10-94%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-MB	L003063.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Surrogate Recoveries		Limits
118-79-6	2,4,6-Tribromophenol	85%	10-123%
4165-60-0	Nitrobenzene-d5	81%	35-114%
321-60-8	2-Fluorobiphenyl	74%	43-116%
1718-51-0	Terphenyl-d14	93%	33-141%

(a) Suspected laboratory contaminant. Compound not detected in associated samples.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-MS	L003071.D	1	02/15/00	ME	02/14/00	OP1297	SL203
OP1297-MSD	L003072.D	1	02/15/00	ME	02/14/00	OP1297	SL203
F5856-7	L003070.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Compound	F5856-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		105	51.7	49	53.9	51	4	10-125/31
95-57-8	2-Chlorophenol	ND		105	90.6	86	94.7	90	4	33-125/42
59-50-7	4-Chloro-3-methyl phenol	ND		105	90.5	86	93.0	88	3	56-125/29
120-83-2	2,4-Dichlorophenol	ND		105	95.0	90	96.8	92	2	52-125/40
105-67-9	2,4-Dimethylphenol	2.1	J	105	83.1	77	83.9	78	1	10-143/22
51-28-5	2,4-Dinitrophenol	ND		105	81.6	78	89.9	86	10	27-128/25
534-52-1	4,6-Dinitro-o-cresol	ND		105	96.6	92	98.8	94	2	54-140/16
95-48-7	2-Methylphenol	ND		105	89.3	85	92.3	88	3	28-125/26
	3&4-Methylphenol	ND		105	89.0	85	92.3	88	4	28-125/35
88-75-5	2-Nitrophenol	ND		105	101	96	104	99	3	35-127/46
100-02-7	4-Nitrophenol	ND		105	62.1	59	67.6	64	8	19-125/27
87-86-5	Pentachlorophenol	ND		105	105	100	110	105	5	33-157/53
108-95-2	Phenol	ND		105	60.7	58	62.6	60	3	19-125/37
95-95-4	2,4,5-Trichlorophenol	ND		105	96.3	92	100	95	4	60-125/38
88-06-2	2,4,6-Trichlorophenol	ND		105	98.4	94	100	95	2	61-125/47
83-32-9	Acenaphthene	ND		105	94.8	90	97.5	93	3	57-125/15
208-96-8	Acenaphthylene	ND		105	106	101	110	105	4	59-125/15
120-12-7	Anthracene	ND		105	102	97	104	99	2	64-125/16
56-55-3	Benzo(a)anthracene	ND		105	103	98	107	102	4	60-125/19
50-32-8	Benzo(a)pyrene	ND		105	106	101	112	107	6	66-115/25
205-99-2	Benzo(b)fluoranthene	ND		105	103	98	111	106	7	39-126/23
191-24-2	Benzo(g,h,i)perylene	ND		105	96.6	92	99.6	95	3	39-146/33
207-08-9	Benzo(k)fluoranthene	ND		105	109	104	106	101	3	45-127/20
101-55-3	4-Bromophenyl phenyl ether	ND		105	85.1	81	86.9	83	2	44-125/22
85-68-7	Butyl benzyl phthalate	ND		105	88.1	84	89.1	85	1	46-142/41
100-51-6	Benzyl Alcohol	ND		105	89.3	85	92.2	88	3	28-125/23
91-58-7	2-Chloronaphthalene	ND		105	95.8	91	96.6	92	1	49-125/19
106-47-8	4-Chloroaniline	ND		105	87.2	83	90.3	86	3	12-125/29
86-74-8	Carbazole	ND		105	104	99	107	102	3	58-125/15
218-01-9	Chrysene	ND		105	99.8	95	106	101	6	62-125/20
111-91-1	bis(2-Chloroethoxy)methane	ND		105	92.0	88	92.8	88	1	38-128/27
111-44-4	bis(2-Chloroethyl)ether	ND		105	90.2	86	94.0	90	4	43-145/28
108-60-1	bis(2-Chloroisopropyl)ether	ND		105	77.9	74	80.0	76	3	19-125/24
7005-72-3	4-Chlorophenyl phenyl ether	ND		105	85.0	81	89.0	85	4	53-125/10
95-50-1	1,2-Dichlorobenzene	5		105	88.8	80	91.5	82	3	36-125/22
541-73-1	1,3-Dichlorobenzene	ND		105	80.7	77	82.9	79	3	31-125/21

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-MS	L003071.D	1	02/15/00	ME	02/14/00	OP1297	SL203
OP1297-MSD	L003072.D	1	02/15/00	ME	02/14/00	OP1297	SL203
F5856-7	L003070.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Compound	F5856-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-46-7	1,4-Dichlorobenzene	ND		105	85.5	81	88.8	84	4	33-125/21
121-14-2	2,4-Dinitrotoluene	ND		105	97.5	93	104	99	6	56-145/15
606-20-2	2,6-Dinitrotoluene	ND		105	95.4	91	104	99	9	54-145/22
91-94-1	3,3'-Dichlorobenzidine	ND		105	60.6	58	60.6	58	0	12-146/39
53-70-3	Dibenzo(a,h)anthracene	ND		105	76.4	73	83.4	79	9	39-134/38
132-64-9	Dibenzofuran	ND		105	89.7	85	94.2	90	5	60-125/22
84-74-2	Di-n-butyl phthalate	ND		105	99.2	94	102	97	3	56-125/16
117-84-0	Di-n-octyl phthalate	ND		105	106	101	108	103	2	30-133/26
84-66-2	Diethyl phthalate	ND		105	93.5	89	102	97	9	51-125/11
131-11-3	Dimethyl phthalate	ND		105	91.6	87	98.6	94	7	15-125/13
117-81-7	bis(2-Ethylhexyl)phthalate	ND		105	101	96	102	97	1	34-142/41
206-44-0	Fluoranthene	ND		105	106	101	109	104	3	56-135/22
86-73-7	Fluorene	ND		105	96.1	92	102	97	6	58-125/16
118-74-1	Hexachlorobenzene	ND		105	93.2	89	93.5	89	0	50-145/19
87-68-3	Hexachlorobutadiene	ND		105	76.4	73	75.9	72	1	28-125/53
77-47-4	Hexachlorocyclopentadiene	ND		105	47.3	45	41.8	40	12	17-140/66
67-72-1	Hexachloroethane	ND		105	86.3	82	87.6	83	1	18-157/29
193-39-5	Indeno(1,2,3-cd)pyrene	ND		105	102	97	106	101	4	53-134/30
78-59-1	Isophorone	ND		105	92.8	88	94.5	90	2	44-125/21
91-57-6	2-Methylnaphthalene	ND		105	88.0	84	89.1	85	1	35-125/18
88-74-4	2-Nitroaniline	ND		105	110	105	116	110	5	54-125/20
99-09-2	3-Nitroaniline	ND		105	75.7	72	86.5	82	13	44-125/21
100-01-6	4-Nitroaniline	ND		105	93.2	89	103	98	10	44-125/20
91-20-3	Naphthalene	ND		105	95.2	91	97.2	92	2	22-131/26
98-95-3	Nitrobenzene	ND		105	92.2	88	93.0	88	1	37-125/22
621-64-7	N-Nitroso-di-n-propylamine	ND		105	88.1	84	91.4	87	4	45-125/21
86-30-6	N-Nitrosodiphenylamine	ND		105	104	99	103	98	1	61-127/22
85-01-8	Phenanthrene	ND		105	101	96	103	98	2	64-125/16
129-00-0	Pyrene	ND		105	97.8	93	96.8	92	1	47-142/45
120-82-1	1,2,4-Trichlorobenzene	ND		105	82.8	79	84.1	80	2	36-125/23

CAS No.	Surrogate Recoveries	MS	MSD	F5856-7	Limits
367-12-4	2-Fluorophenol	78%	81%	58%	21-100%
4165-62-2	Phenol-d5	60%	61%	41%	10-94%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1297-MS	L003071.D	1	02/15/00	ME	02/14/00	OP1297	SL203
OP1297-MSD	L003072.D	1	02/15/00	ME	02/14/00	OP1297	SL203
F5856-7	L003070.D	1	02/15/00	ME	02/14/00	OP1297	SL203

The QC reported here applies to the following samples: **Method:** SW846 3510C/8270C

F5865-1

CAS No.	Surrogate Recoveries	MS	MSD	F5856-7	Limits
118-79-6	2,4,6-Tribromophenol	101%	100%	101%	10-123%
4165-60-0	Nitrobenzene-d5	104%	103%	104%	35-114%
321-60-8	2-Fluorobiphenyl	95%	96%	96%	43-116%
1718-51-0	Terphenyl-d14	94%	92%	94%	33-141%

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK135-BS2	K005293.D	1	02/14/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

F5865-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	131	105	37-160
71-43-2	Benzene	25	26.2	105	61-141
75-27-4	Bromodichloromethane	25	24.3	97	72-125
75-25-2	Bromoform	25	26.1	104	62-126
108-90-7	Chlorobenzene	25	25.9	104	75-125
75-00-3	Chloroethane	25	27.9	112	58-134
67-66-3	Chloroform	25	24.6	98	73-125
75-15-0	Carbon disulfide	125	131	105	70-146
56-23-5	Carbon tetrachloride	25	26.1	104	62-126
75-34-3	1,1-Dichloroethane	25	26.3	105	75-125
75-35-4	1,1-Dichloroethylene	25	27.1	108	73-125
107-06-2	1,2-Dichloroethane	25	24.2	97	66-130
78-87-5	1,2-Dichloropropane	25	26.0	104	75-125
124-48-1	Dibromochloromethane	25	25.7	103	75-125
156-59-2	cis-1,2-Dichloroethylene	25	25.9	104	65-131
10061-01-5	cis-1,3-Dichloropropene	25	23.9	96	58-136
156-60-5	trans-1,2-Dichloroethylene	25	25.5	102	65-133
10061-02-6	trans-1,3-Dichloropropene	25	25.2	101	49-139
100-41-4	Ethylbenzene	25	26.1	104	67-128
591-78-6	2-Hexanone	125	145	116	60-135
108-10-1	4-Methyl-2-pentanone	125	148	118	64-131
74-83-9	Methyl bromide	25	28.4	114	32-149
74-87-3	Methyl chloride	25	23.6	94	59-143
75-09-2	Methylene chloride	25	24.2	97	73-125
78-93-3	Methyl ethyl ketone	125	134	107	54-133
100-42-5	Styrene	25	25.7	103	74-127
71-55-6	1,1,1-Trichloroethane	25	23.1	92	72-125
79-34-5	1,1,2,2-Tetrachloroethane	25	26.3	105	68-125
79-00-5	1,1,2-Trichloroethane	25	26.5	106	75-125
127-18-4	Tetrachloroethylene	25	28.0	112	75-125
108-88-3	Toluene	25	27.7	111	72-125
79-01-6	Trichloroethylene	25	26.6	106	72-125
75-01-4	Vinyl chloride	25	27.2	109	63-138
1330-20-7	Xylene (total)	75	77.5	103	69-127

Blank Spike Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK135-BS2	K005293.D	1	02/14/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

F5865-1

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	69-128%
2037-26-5	Toluene-D8	103%	80-120%
460-00-4	4-Bromofluorobenzene	93%	80-120%

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK135-MB2	K005294.D	1	02/14/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

F5865-1

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	ug/l	
75-25-2	Bromoform	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	2.0	ug/l	
75-00-3	Chloroethane	ND	5.0	ug/l	
67-66-3	Chloroform	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	10	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	5.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
100-42-5	Styrene	ND	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	2.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
79-01-6	Trichloroethylene	ND	2.0	ug/l	
75-01-4	Vinyl chloride	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

Method Blank Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VK135-MB2	K005294.D	1	02/14/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

F5865-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	80-120%
17060-07-0	1,2-Dichloroethane-D4	95%	69-128%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F5780-4MS	K005289.D	1	02/11/00	CJP	n/a	n/a	VK135
F5780-4MSD	K005290.D	1	02/11/00	CJP	n/a	n/a	VK135
F5780-4	K005285.D	1	02/11/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

F5865-1

CAS No.	Compound	F5780-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	131	105	125	100	5	37-160/20
71-43-2	Benzene	ND		25	26.6	106	26.3	105	1	61-141/16
75-27-4	Bromodichloromethane	ND		25	24.1	96	23.4	94	3	72-125/10
75-25-2	Bromoform	ND		25	23.6	94	23.4	94	1	62-126/15
108-90-7	Chlorobenzene	ND		25	25.9	104	25.9	104	0	75-125/10
75-00-3	Chloroethane	ND		25	27.4	110	26.4	106	4	58-134/12
67-66-3	Chloroform	ND		25	25.4	102	24.6	98	3	73-125/10
75-15-0	Carbon disulfide	ND		125	123	98	121	97	2	70-146/11
56-23-5	Carbon tetrachloride	ND		25	26.3	105	25.9	104	2	62-126/17
75-34-3	1,1-Dichloroethane	ND		25	27.5	110	26.1	104	5	75-125/10
75-35-4	1,1-Dichloroethylene	ND		25	28.0	112	26.4	106	6	73-125/10
107-06-2	1,2-Dichloroethane	ND		25	27.0	108	25.2	101	7	66-130/18
78-87-5	1,2-Dichloropropane	ND		25	26.1	104	25.4	102	3	75-125/10
124-48-1	Dibromochloromethane	ND		25	24.4	98	24.4	98	0	75-125/11
156-59-2	cis-1,2-Dichloroethylene	ND		25	25.3	101	24.3	97	4	65-131/11
10061-01-5	cis-1,3-Dichloropropene	ND		25	21.6	86	21.8	87	1	58-136/13
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.7	103	24.4	98	5	65-133/10
10061-02-6	trans-1,3-Dichloropropene	ND		25	23.1	92	22.0	88	5	49-139/19
100-41-4	Ethylbenzene	ND		25	27.0	108	26.4	106	2	67-128/10
591-78-6	2-Hexanone	ND		125	149	119	143	114	4	60-135/19
108-10-1	4-Methyl-2-pentanone	ND		125	151	121	144	115	5	64-131/19
74-83-9	Methyl bromide	ND		25	27.6	110	26.4	106	4	32-149/27
74-87-3	Methyl chloride	ND		25	23.8	95	22.9	92	4	59-143/18
75-09-2	Methylene chloride	ND		25	24.4	98	23.5	94	4	73-125/11
78-93-3	Methyl ethyl ketone	ND		125	130	104	124	99	5	54-133/18
100-42-5	Styrene	ND		25	24.8	99	24.7	99	0	74-127/10
71-55-6	1,1,1-Trichloroethane	ND		25	26.6	106	25.4	102	5	72-125/10
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	25.9	104	25.9	104	0	68-125/12
79-00-5	1,1,2-Trichloroethane	ND		25	26.3	105	25.6	102	3	75-125/12
127-18-4	Tetrachloroethylene	ND		25	27.2	109	26.9	108	1	75-125/10
108-88-3	Toluene	ND		25	28.0	112	27.1	108	3	72-125/10
79-01-6	Trichloroethylene	ND		25	26.8	107	27.0	108	1	72-125/10
75-01-4	Vinyl chloride	ND		25	25.6	102	25.7	103	0	63-138/17
1330-20-7	Xylene (total)	ND		75	80.1	107	77.2	103	4	69-127/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F5865
Account: OMEGATUC Omega Environmental Sciences
Project: Cecil Field-Grey Sites

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F5780-4MS	K005289.D	1	02/11/00	CJP	n/a	n/a	VK135
F5780-4MSD	K005290.D	1	02/11/00	CJP	n/a	n/a	VK135
F5780-4	K005285.D	1	02/11/00	CJP	n/a	n/a	VK135

The QC reported here applies to the following samples: **Method:** SW846 8260B

F5865-1

CAS No.	Surrogate Recoveries	MS	MSD	F5780-4	Limits
1868-53-7	Dibromofluoromethane	100%	98%	98%	80-120%
17060-07-0	1,2-Dichloroethane-D4	110%	103%	102%	69-128%
2037-26-5	Toluene-D8	105%	105%	100%	80-120%
460-00-4	4-Bromofluorobenzene	97%	95%	103%	80-120%

Please print or type.
(Form designed for use on elite (12-pitch) typewriter.)

23923

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	
F.L.5.1.7.0.0.2.2.4.7.4			OLD10927

3. Generator's Name and Mailing Address
56 ~~CECIL FIELD~~ C50/USNAVY NAVFAC Eng Com
56 ~~103RD STREET~~ /3200 Normandy BLVD.
56 ~~JACKSONVILLE, FL~~ Jacksonville, FL 32215

4. Generator's Phone (904) 777-4812

5. Transporter 1 Company Name	6. US EPA ID Number
BARNETT TRANSPORTATION	F.L.D.9.8.3.1.8.6.4.1.2
7. Transporter 2 Company Name	8. US EPA ID Number

9. Designated Facility Name and Site Address
INDUSTRIAL WATER SERVICES, INC.
1640 TALLEYRAND AVE.
JACKSONVILLE, FLORIDA 32206

10. US EPA ID Number
F.L.D.9.8.1.9.2.8.4.8.4

A. Transporter's Phone
B. Transporter's Phone
C. Facility's Phone **904-354-0372**

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON-HAZARDOUS WASTE WATER FROM DAY TANK #1	0.0.1	T.T	0.1.2.0.0	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
DAVID J. KRUZICKI	David J. Kruzicki	05	11	00

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Robert Thompson	Robert Thompson	05	12	00

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jeff Burke		5	12	00

GENERATOR
TRANSPORTER
FACILITY

ORIGINAL - RETURN TO GENERATOR

CERTIFICATE OF DISPOSAL

This is to document the disposition of waste material(s) removed from your facility located at:
U.S. Navy, NAS Cecil Field, 13200 Normandy Blvd., Jacksonville, Florida (Day Tank #1)

A. **The waste material(s) consisted of**
   a) **Petroleum Contaminated Soil**

B. **The waste material(s) were transported by:**
   1st **Company: Robbie D. Wood, Inc. EPA ID #: ALD067138891**

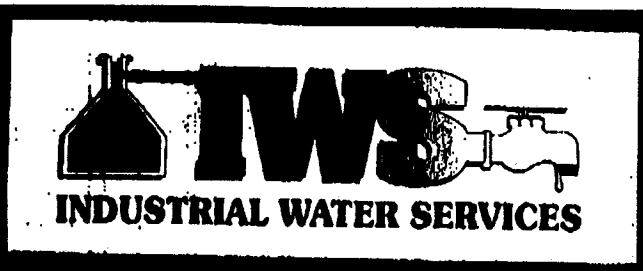
C. **The waste material(s) were disposed of at:**
   Facility: Chesser Island Road Landfill
   Address: P.O. Box 128, Highway 121 @ Chesser Island Road
   Folkston, GA 31537-0128

D. **Disposal of your waste material(s) was accomplished by the following method(s):**
   a) **Subtitle-D Landfill, immediately compacted and covered in accordance with all permit regulations**

E. **Date of Disposal: 02/14/00**

F. **Tons Disposed: 12.58**

Chesser Island Road Landfill
P.O. Box 128, Hwy 121 @Chesser Island Rd
Folkston, Ga 31537
912/496-7918



Industrial Water Services
1980 Avenue "A"
Mobile, Alabama 36615

Facility:
1980 Avenue "A"
Mobile, Alabama 36615
(334) 694-7500
FAX: (334) 694-7508

Corporate Office:
1-800-447-3592
FAX (904) 350-1313

Customer Service:
1-800-4-IWS-HAUL
800-449-7428

Industrial Water Services, Inc.
P.O. Box 43369
Jacksonville, Florida 32203

Facility:
1705 Danese Street
Jacksonville, Florida 32206
(904) 354-0372
FAX: (904) 354-7612

CERTIFICATE OF COMPLIANCE AND DISPOSAL

This certifies that on the 12th of May, 2000; 1200 gallons of non-hazardous wastewater from US Navy NAVFAC Eng. Com: Site location: 13200 Normandy Blvd., Jacksonville, Florida; as described on non-hazardous manifest number 23923, was disposed of and/or recycled in compliance with all applicable state, federal and local regulations under Industrial User Permit Number ISN 019.

Facility Name:	Industrial Water Services, Inc.
Facility Address:	1640 Talleyrand Avenue Jacksonville, FL
Facility EPA ID#:	FLD 981 928 484
Certified By:	Leslie Detlefsen
Signature:	Leslie Detlefsen
Date:	July 26, 2000