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"CONSTRUCTION COMPLETION REPORT FOR INSTALLATION OF AIR SPARGE, BIOSPARGE AND SOIL VAPOR EXTRACTION SYSTEM AT FORMER NORTH FUEL FARM SITE NAS CECIL FIELD FL"
8/7/2007
CH2MHILL CONSTRUCTORS INC

Construction Completion Report

Installation of Air Sparge, Biosparge, and Soil Vapor Extraction System
Former North Fuel Farm Site
Former Naval Air Station Cecil Field
Jacksonville, Florida

Revision No. 00

Contract No. N62467-03-D-0260
Task Order No. 0001

Prepared by:

AGVIQ ENVIRONMENTAL SERVICES
CH2M HILL JOINT VENTURE

1000 Abernathy Boulevard
Northpark 400, Suite 1600
Atlanta, GA 30346

Submitted to:

U. S. Naval Facilities
Engineering Command
Southeast

August 2007

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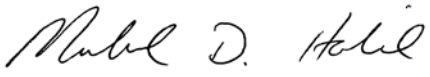
Prepared/Approved By:

Sam Naik, Project Manager — August 7, 2007 (Date)

Approved By:



Mike Halil, Deputy Program Manager — August 7, 2007 (Date)

Client Acceptance:

U.S. Navy Responsible Authority — Date

CERTIFICATE OF COMPLETION

AGVIQ-CH2M HILL Joint Venture II attests that, to the best of its knowledge and belief, the installation of the air sparge, biosparge, and SVE system at the North Fuel Farm Area Project, delivered under Contract No. N62467-03-D-0260, Task Order No. 0001, has been completed, inspected, and tested, and is in compliance with the contract.

Eric Burrell _____

Project Quality Control Manager Date

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Acronyms

AS	air sparge
bgs	below ground surface
BS	biosparge
CCR	Construction Completion Report
COC	chemical of concern
DFOW	definable feature of work
ECR	Environmental Conditions Report
EGIS	Environmental Geographic Information System
EPA	U.S. Environmental Protection Plan
EW	equivalent width
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Residual Organic
GCTLs	Groundwater Cleanup Target Levels
HDPE	high density polyethylene
JAA	Jacksonville Airport Authority
JEA	Jacksonville Electric Authority
JVII	AGVIQ-CH2M HILL Joint Venture II
NAS	Naval Air Station
NAVFAC SE	Naval Facilities Engineering Command, Southeast
NFF	Northern Fuel Farm
NTR	Navy Technical Representative
O&M	Operations and Maintenance
PCBs	Polychlorinated biphenyls
PCW	Petroleum contact water
PPE	Personal protective equipment
psi	pounds per square inch

PVC	Polyvinyl chloride
PWC	Public Works Center
QC	Quality Control
RAPA	Remedial Action Plan Addendum
ROICC	Resident Officer in Charge of Construction
RPM	Remedial Project Manager
SJRWMD	St. Johns River Water Management District
SVE	soil vapor extraction
SVOCs	semi-volatile organic compounds
T&D	transportation and disposal
TAL	Total Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TRPH	Total Recoverable Petroleum Hydrocarbons
TtNUS	TetraTech NUS, Inc.
VOCs	volatile organic compounds

1.0 Introduction

AGVIQ -CH2M HILL Constructors, Inc. Joint Venture II (JVII) was contracted by the Department of the Navy, Naval Facilities Engineering Command, Southeast (NAVFAC SE) to conduct remedial construction activities for groundwater remediation at the former North Fuel Farm (NFF) site, located at the former Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. This work was performed under Contract No. N62467-03-D-0260, Task Order No. 0001 and in accordance with the work approach outlined in the *Final Work Plan, Installation, Operation, Maintenance and Monitoring of Air Sparge, Biosparge and Soil Vapor Extraction System*, (JVII, 2004) (hereafter referred to as the Work Plan). The Work Plan was reviewed and approved by the Navy and the Florida Department of Environmental Protection (FDEP) during June 2004.

The objective of this Construction Completion Report (CCR) is to provide documentation of the remedial construction activities associated with the installation, startup and commencement of operations of the air sparge (AS), biosparge (BS), and soil vapor extraction (SVE) system at the NFF site.

1.1 Site History

The NFF site is located at the northwest corner of Aviation Avenue and Loop Road at the former NAS Cecil Field, and formerly contained six JP-5 jet fuel storage tanks, each with a capacity of 595,000 gallons. A release of approximately 900,000 gallons of fuel occurred in 1991 at the site, causing petroleum contamination in the shallow surficial aquifer.

In 2000 and 2001, all the tanks, the earth mound surrounding the tanks, and contaminated soil were removed.

During site investigations conducted by TetraTech NUS (TetraTech), the following parameters were detected in groundwater at concentrations above the FDEP groundwater cleanup target levels (GCTLs) during previous site investigations: benzene, ethylbenzene, toluene, xylene, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene. The extent of contamination observed during the site investigation extended vertically through the surficial aquifer from water table depths of 5 feet below ground surface (bgs) to the top of a confining layer at depths ranging from 100 to 110 feet bgs. The lateral extent of the plume based on data collected during the site investigation was estimated to be approximately 862,000 square feet.

Also included in the NFF site treatment area is the former Truck Stand Site (Facility 372), which is located about 300 feet southeast of the NFF. This site was investigated separately, and the treatment of a relatively small groundwater plume (approximately 8,000 square feet) was required. Because of the close proximity of the Truck Stand Site, it was included under the scope of work for the NFF site.

Based on the findings of the site investigations, TetraTech prepared a Remedial Action Plan Addendum (RAPA) (TetraTech NUS, 2004) for the NFF site to detail the various remedial

action alternatives and the details of the selected remedial design for the construction and operation of the AS/BS/ SVE system at the site.

Numerous groundwater monitoring wells (over 100) exist in and around the groundwater treatment area.

The NFF area location within NAS Cecil Field is shown on Figure 1-1. The site location is shown on Figure 1-2.

Table 1-1 presents the maximum contaminant concentrations encountered during investigation of the site.

TABLE 1-1
Summary of Detected Maximum Concentrations of Chemicals of Concern

Chemical of Concern (COC)	Maximum Concentration Detected (ug/L)
Benzene	10,600
Toluene	6,470
Ethylbenzene	1,180
Xylenes	7,130
Naphthalene	165
1-Methylnaphthalene	61
2-Methylnaphthalene	83
Total Recoverable Petroleum Hydrocarbons (TRPH)	8,680

ug/L micrograms per liter

1.2 Project Scope of Work and Construction Objectives

JVII was authorized by NAVFAC SE on June 12, 2004 to commence the scope of work associated with the installation of AS/BS/SVE system at the NFF located at the Former NAS Cecil Field. The scope of work and the construction approach were outlined in the RAPA (TtNUS, 2004). The detailed methodology for the conducting the construction activities per the scope of work was described in the Work Plan.

The remedial action objectives behind the construction and operation of the AS/BS/SVE system at the NFF site stated in the RAPA were to treat groundwater contaminated with petroleum compounds, down to the confining unit of the shallow aquifer, which is located at approximately 110 feet bgs at the site. The performance objective of the AS/BS/SVE system was to reduce the groundwater contaminant concentrations sufficiently to allow natural attenuation processes to achieve GCTLs over the long-term.

The scope of work for the AS/BS/SVE system at the NFF site outlined in the Work Plan included the following activities:

1. Mobilization and setup of temporary facilities and site controls
2. Site survey

3. Tree clearing and grubbing
4. Installation of AS and BS wells
5. Installation of AS and BS system piping
6. Installation of SVE system wells and piping
7. Construction of AS/BS/SVE treatment system compound and equipment installation
8. Installation of electrical power and telephone connections
9. Start-up and shake-down of AS/BS/SVE treatment system
10. Site restoration
11. Decontamination
12. Transportation and disposal (T&D) of contaminated/non-contaminated materials
13. Preparation and submittal of an operations and maintenance (O&M) manual
14. O&M for 1 year following system installation

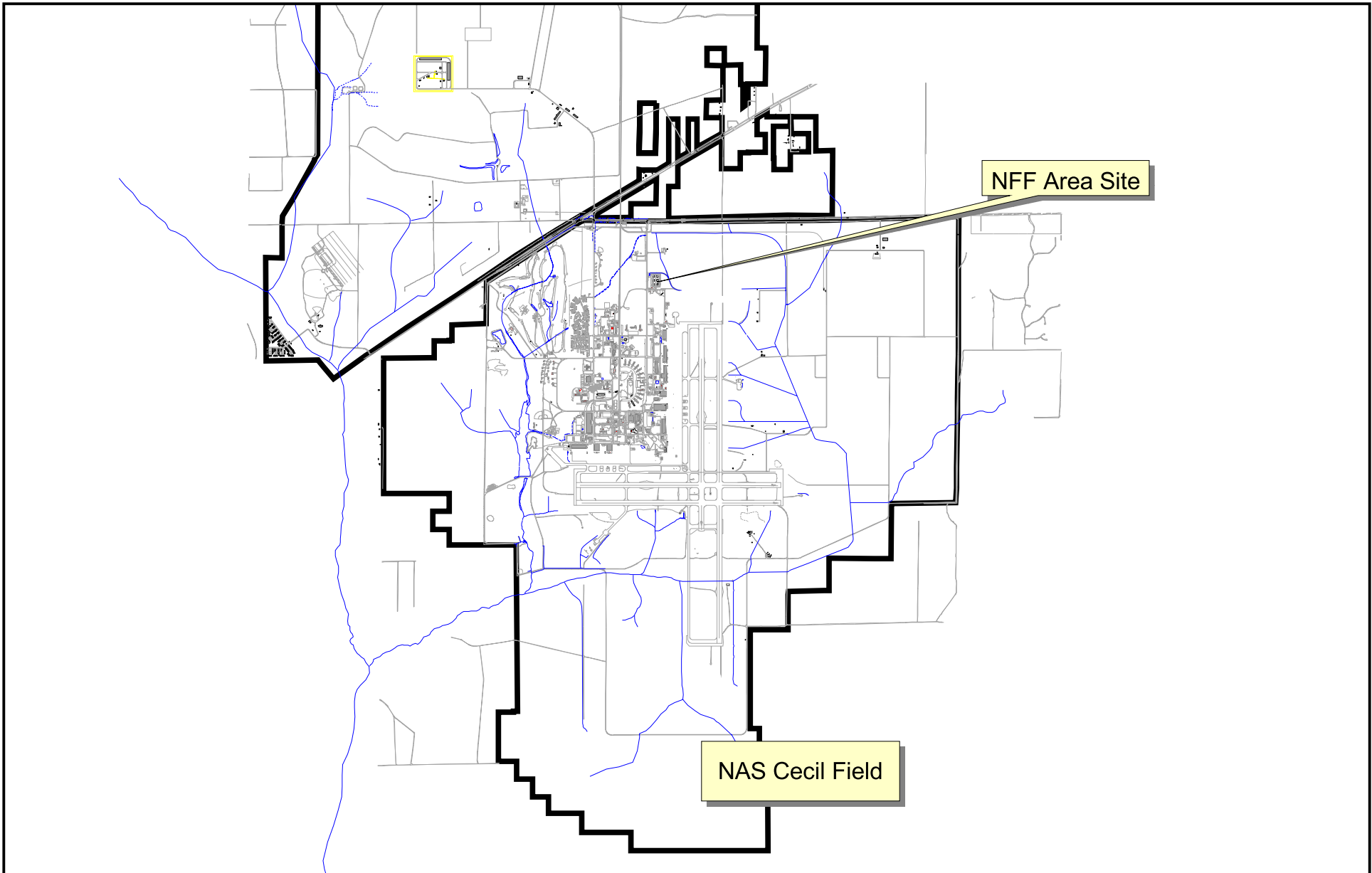
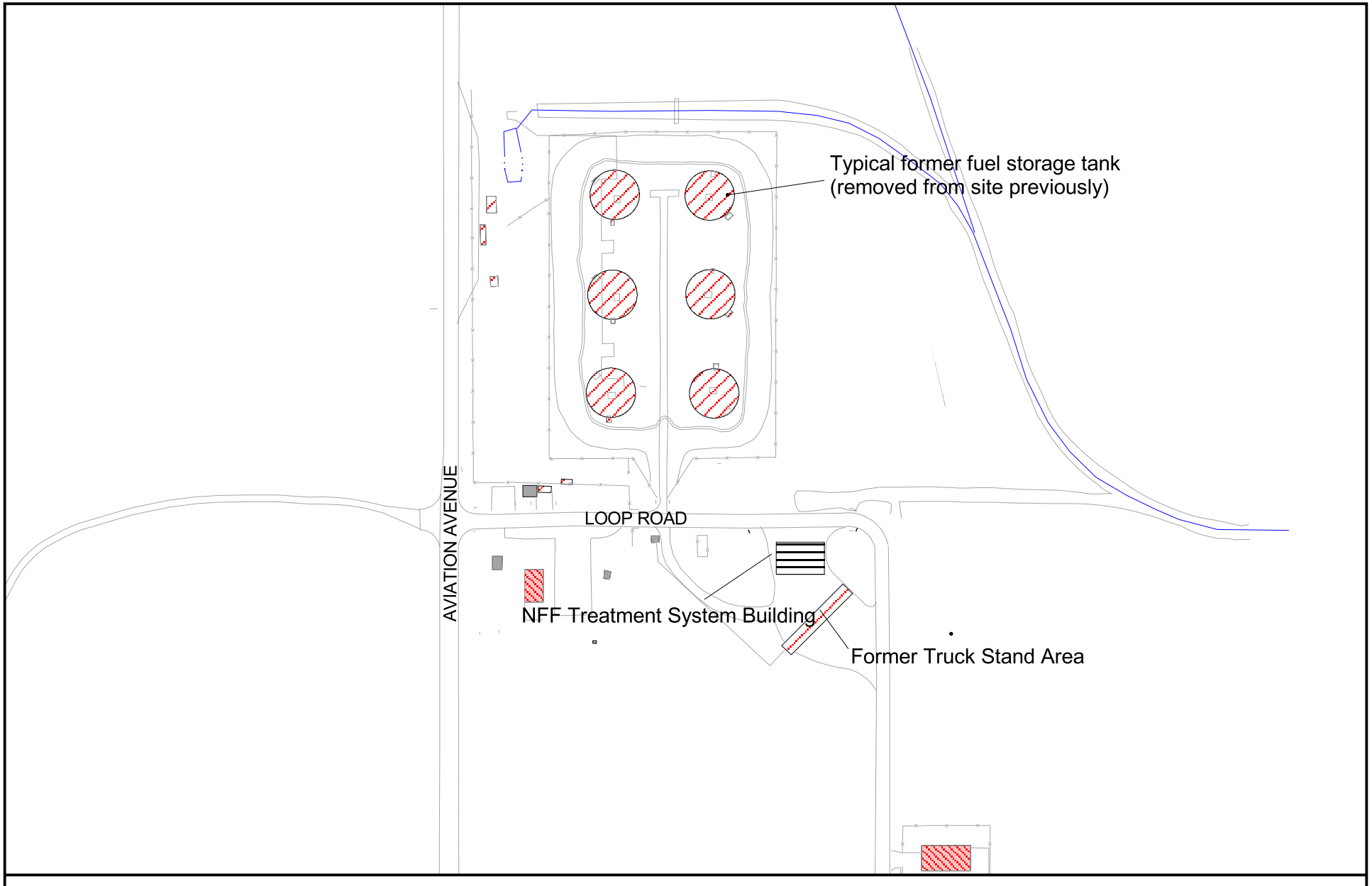


Figure 1-1
Site Location
NFF Area Site
NAS Cecil Field, Jacksonville, FL

File Path: c:\nas_cecilfield.apr, Date: 16 Dec 2003 12:43, User: SNAIK1, fig1-1 work plan



Surface Water
Roads
PERMANENT
DEMOLITION
PROPOSED-DEMOLITION

N

0 100 200 Feet

1 inch = 190.569 feet

Figure 1-2
Site Layout
North Fuel Farm Site
Former NAS Cecil Field, Jacksonville, FL

CH2MHILL

File Path: c:\gis\nas_cecilfield.apr, Date: 04 Jan 2007 12:58, User: SNAIK1, NAS Cecil Field Area [Florida State Plane Coordinate System NAD 83 Units Feet] - Figure 1-2 Site Layout

2.0 Significant Events

The chronology of events is listed below. Specific details describing the construction activities are found in Section 3.0 of this report.

TABLE 2-1
Construction Sequence Summary

Event	Date
Mobilization	March 1, 2004
Site Survey	March 11 – March 12, 2004
Tree Clearing and Grubbing	April 21 – May 24, 2004
AS and BS Well Installation	June 21 – August 20, 2004
AS and BS System Piping Installation	July 19 – October 7, 2004
SVE System Piping Installation	June 24 – July 16, 2004
Construction of Treatment System Compound and Equipment	February 7 – March 21, 2005
Electrical Power and Telephone Connection Installation	October 21, 2004 – January 26, 2005
Waste Characterization Sample Collection	August 19, 2004
T&D of Accumulated Waste	October 4 – October 5, 2004
Construction of Steel Canopy Building	February 5, 2005 – April 30, 2005
System Startup	May 1, 2005 – July 11, 2005

3.0 Construction Activities and Quality Control

3.1 Project Participants

The project participants and their respective responsibilities for the project are discussed in this section. The primary project participants are listed in Table 3-1.

TABLE 3-1
Organizational Structure of Project Participants

Company	Role	Name
NAVFAC SE	Remedial Project Manager	Mr. Gabriel Magwood
Former NAS Jacksonville	Resident Officer in Charge of Construction	Ms. Brenda Schwelling
	Navy Technical Representative for Construction Oversight and Inspection	Mr. Arthur Moseley
JVII	Project Manager	Mr. Joseph Colella
	Associate Project Manager	Mr. Sam Naik
	Project Superintendent	Mr. Scott Hendershot
	Project Quality Control (QC) Manager	Mr. Randy Dumaop
	Site Health and Safety Specialist	Mr. Randy Dumaop
Prosonic, Inc.	Well Drilling Subcontractor	
Onion Equipment Company	Procurement, Fabrication and Installation of AS/BS/SVE Treatment System equipment	
L.D. Bradley Land Surveyors, Inc.	Surveying Subcontractor	
C & C Powerline, Inc.	Electrical Subcontractor	
Gulf Coast Analytical Laboratories	Offsite Laboratory Services Subcontractor	
Environmental Remediation Services	Transportation and Disposal Subcontractor - Transporter	
Millenium Engineering Sciences, Inc.	Additional Oversight Geologist for Well Installation Activities	
The Dakota Company, Inc.	Construction of Treatment System Canopy Building	

3.2 Summary of Construction Activities

JVII received a limited notice to proceed from the Navy on March 29, 2004, to conduct permitting, endangered species surveys, tree-clearing and grubbing operations at the site.

Listed below are the major definable features of work (DFOWs) according to the Work Plan. Quality Control (QC) procedures including the three-phase inspection process were implemented during the course of the construction activities for these DFOWs, and are described in detail in this section.

- Pre-planning and permitting
- Mobilization and setup of temporary facilities and site controls
- Site survey
- Tree clearing and grubbing
- Installation of AS and BS wells
- Installation of AS and BS system piping
- Installation of SVE wells and piping
- Construction of treatment system compound and equipment installation
- Installation of electrical power and telephone connections
- Start-up and optimization of treatment system operation
- Site restoration
- T&D of contaminated/non-contaminated materials
- Decontamination
- O&M for 1 year following system installation

JVII provided oversight of all field operations throughout the course of the project. JVII field oversight staff included a project superintendent, a QC manager who was also assigned to be the site health and safety specialist. Detailed records of subcontractor activities were maintained in field logbooks and site field records and included in daily activities and QC reports submitted on a weekly basis to the Navy Technical Representative (NTR) at the office of the Resident Officer in Charge of Construction (ROICC), NAS Jacksonville, FL. The project submittal register is provided in Appendix A.

3.2.1 Pre-planning and Permitting

Site preparation activities conducted included establishing site controls, conducting utility clearances, and obtaining permits from local and state authorities.

A site walk was conducted with all subcontractors during November 2003, prior to site mobilization, to familiarize subcontractors with the general features of the site, including tree and shrub cover, presence of existing monitoring wells, endangered species of record at the site, and proximity of the Jacksonville Airport Authority (JAA) runways and flight lines.

An Environmental Conditions Report (ECR) was prepared by JVII and submitted to the Navy prior to site mobilization. The ECR included a general description of site features present before site mobilization, along with photographs of the construction area to provide an indication of site conditions prior to intrusive activities.

Utility clearances were obtained through coordination with the JAA and Sunshine State One-Call of Florida. Additionally, the Base Environmental Coordinator for NAS Cecil Field and the Navy Remedial Project Manager (RPM) were contacted to obtain drawings of historical fuel lines. Historical construction completion reports were reviewed to verify whether buried fuel lines were present within the footprint and the vicinity of the construction area. No buried fuel lines were found to be present based on the utility clearances and historical information of the site.

An excavation permit was secured from J. A. Jones Global Services prior to intrusive activities to cover trenching for pipe runs.

In addition to the utility clearances, an endangered species survey was conducted by a qualified JVII scientist during November 2003 and March 2004, to identify the presence of gopher tortoise and the Eastern Indigo snake, which were listed as two endangered species for this area by the State of Florida. A tree survey was conducted to mark specific trees that would require permitting from the City of Jacksonville prior to felling. An area of approximately 8 acres was to be cleared of trees and shrubs to enable installation of AS/BS wells.

The gopher tortoise survey revealed abandoned gopher tortoise holes but did not indicate the presence of the Eastern Indigo snake habitat within the construction and tree-clearing areas. The results of the survey were provided along with the permit application submitted to the City of Jacksonville for tree clearing at the site. This permit application was submitted to and approved by the City of Jacksonville on April 24, 2004.

Two endangered tree species were identified at the NFF area: the quercus nigra (water oak) and pinus palustris (longleaf pine). A total of six endangered trees were preserved. Eight endangered trees were removed to provide access to the drillers for the AS and BS well installation. The City of Jacksonville received compensation for the trees that were removed.

Appendix B includes copies of the gopher tortoise survey notes and JVII correspondence with the City of Jacksonville and the Florida Fish and Wildlife Conservation Commission regarding these surveys and permits.

3.2.2 Site Mobilization and Site Preparation

Site mobilization consisted of mobilization of personnel and delivery of equipment and materials to the work sites; and the establishment of temporary facilities, such as installation of erosion control measures, portable sanitary facilities, decontamination areas, site support trailers, and equipment laydown areas. Project management and scheduling activities, including contractor coordination, were performed at the JVII office located at the Former NAS Cecil Field with support and oversight from the JVII office in Atlanta, Georgia.

3.2.3 Site Survey

Prior to the beginning of intrusive activities, a land survey was conducted from March 11, 2004 through March 12, 2004 by L.D. Bradley Land Surveyors to establish temporary bench marks and other control points around the site, and to establish the boundaries encompassing the AS and BS well locations. The survey also established the extent of tree clearing necessary to provide the well driller access for installation of AS and BS wells. Several AS and BS well locations as well as the SVE collection lines were surveyed and marked on the ground by the surveyor. The remaining AS and BS wells were located in the field using a transit, based on offsets from the surveyed locations and the center-to-center spacing between wells of 30 feet as indicated in the RAPA.

All site survey data conformed to the Tri-Service Spatial Data Standards. Horizontal controls for graphic and non-graphic information are Mercator Projection, GRS 80, State Plane Coordinate System, North American Datum 1983, Lambert Zones 1 through 6. Vertical controls are Mean Sea Level, North American Vertical Datum, 1988.

A copy of the site survey drawing is provided in Appendix C.

3.2.4 Tree Clearing and Grubbing

Approximately 8 acres of wooded area were cleared by JVII from April 21, 2004 through May 24, 2004 to facilitate installation of AS and BS wells. The trees were felled, cut, and transported offsite. The roots and stumps of the trees were removed and mulched onsite by Tim Nolan's Tree Service. Photos of the clearing and grubbing are included in Appendix D.

3.2.5 Installation of AS and BS Wells

Prior to well installation, manufacturer's catalog data for all well materials were submitted to JVII and approved. All well materials to be utilized were inspected on receipt at the job site and were found to be in compliance with the approved submittals. The AS and BS wells were installed by Prosonic, Inc., a well driller certified to operate in the State of Florida, using rotosonic drilling methods in accordance with the approved Work Plan.

Well installation activities were overseen by two qualified JVII hydrogeologists licensed in the State of Florida. The total well and screen depths, and well materials and depths were verified closely by the oversight geologist and the Project QC Manager.

Figures 3-1 and 3-2 show the locations of the shallow and deep AS and BS wells installed at the site. A total of 48 shallow AS wells, 34 deep AS wells, 21 shallow BS wells, and 110 deep BS wells, were installed between June 21, 2004 and August 20, 2004. The AS and BS wells were constructed with 1-inch diameter Schedule 80 polyvinyl chloride (PVC) pipe riser with a 2-foot long, 1-inch diameter Schedule 80, 0.010-inch slot screen.

The shallow wells were installed with a typical sand pack consisting of 20/30 grade silica sand from 50 feet bgs to 48 feet bgs, sodium bentonite seal from 48 feet bgs to 41.5 feet bgs, and a grouted annulus consisting of Type I Portland Cement grout to approximately 18 inches bgs.

The deep wells were installed with a typical sand pack consisting of 20/30 grade silica sand from 110 feet bgs to 108 feet bgs, sodium bentonite seal from 108 feet bgs to 102 feet bgs, and a grouted annulus consisting of Type I Portland Cement grout to approximately 18 inches bgs.

The AS and BS wells were developed using low-flow well development techniques per the methodology detailed in the Work Plan. At least three well volumes of development water were recovered at each well, with additional purging of the groundwater until the recovered water was clear, using a peristaltic pump at approximately 1 to 2 gallons per minute. The generated drill cuttings and development water were containerized in 55-gallon drums for waste characterization and offsite transportation and disposal.

Each well riser was terminated at the top with a PVC tee compression fitting which was threaded to a PVC-to-high density polyethylene (HDPE) transition fitting.

The well construction diagrams and well boring logs from the 213 AS and BS were provided to TtNUS for incorporation into the NAS Cecil Field Environmental Geographic Information System (EGIS) (see Appendix E).

N

0 100 200 300
Scale In Feet

NOTE:
EACH WELL IS INDIVIDUALLY PIPED FROM THE WELLHEAD TO THE TREATMENT SYSTEM MANIFOLD.

Treatment Equipment Building

TRUCKSTAND

AS/BS PIPING

AIR SPARGING WELL AREA OF INFLUENCE

BIOSPARGING WELL AREA OF INFLUENCE

DEMOLISHED TANK

DEMOLISHED BUILDING

DRAINAGE SWALE

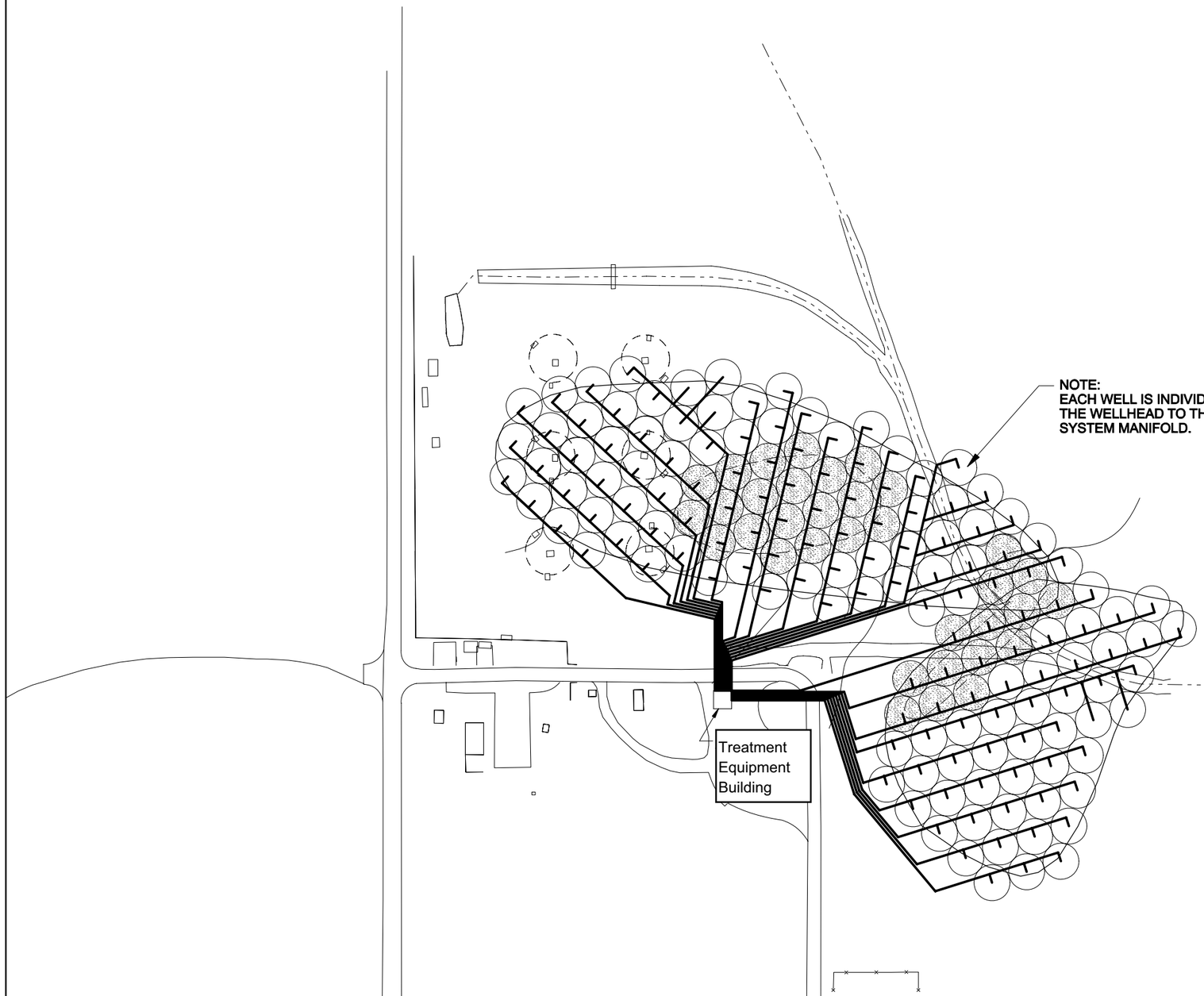
FIGURE 3-1

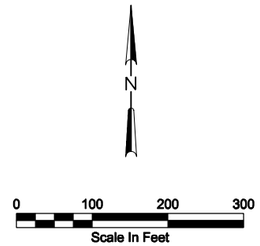
AIR SPARGING PIPING LAYOUT AND BIOSPARGING WELLS - SHALLOW
NORTH FUEL FARM AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

AGVIQ ENVIRONMENTAL SERVICES
CH2M HILL JOINT VENTURE II

15-JAN-2004 fig4-283092.dgn

PEACHTREE/CAD1/PROJECTS/283092





AS/BS PIPING

AIR SPARGING WELL AREA OF INFLUENCE

BIOSPARGING WELL AREA OF INFLUENCE

DEMOLISHED TANK

DEMOLISHED BUILDING

DRAINAGE SWALE

FIGURE 3-2

PIPING LAYOUT
AIR SPARGING AND BIOSPARGING WELLS - DEEP
NORTH FUEL FARM AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

AGVIQ ENVIRONMENTAL SERVICES
CH2M HILL JOINT VENTURE II

15-JAN-2004 fig5-283092.dgn

PEACHTREE/CAD1/PROJECTS/283092

Each wellhead was enclosed in a 6-inch diameter fiberglass valve box with a 7-inch diameter overlapping cover rated for periodic vehicular traffic. The vaults were surrounded by 18-inch thick layer of crushed lime rock. The material properties of the crushed lime rock and the well vault material were provided to the Navy in a technical submittal and procured after Navy approval of the submittal.

Copies of the material properties of the valve box, cover, and the limerock, and the technical memorandum detailing the construction details of a typical wellhead and well vault are included in Appendix F.

3.2.6 Trenching and Installation of AS and BS System Piping

Prior to trenching and pipe installation, manufacturer's catalog data for all pipe and well vault materials were submitted to JVII and approved. All piping and well vault materials utilized were inspected on receipt at the job site and were found to be in compliance with the approved submittals.

AS/BS pipe trenching activities were conducted from July 19, 2004 to October 7, 2004 in accordance with the Work Plan. The locations and depths of each trench were verified daily during trenching activities using surveying equipment to ensure proper grade, direction, and slopes. All piping and well vault materials were installed in accordance with the manufacturer's recommendations, the approved submittals, and the approved Work Plan.

All underground piping was installed using individual 1-inch diameter HDPE SDR 11 pipes, connecting each AS and BS well to an individual manifold leg located in the treatment system building area.

The underground piping was installed in the trench at a minimum depth of 1 foot bgs. Native soil was used for pipe bedding as the native soil was sandy and free from debris. All underground piping was pressure-tested after installation in the trenches, but, prior to backfilling the trenches with native material. The system piping was held to the test pressure of 100 pounds per square inch (psi) for 1 hour during each pressure test. No pipes or pipe connections failed the pressure test.

The average length of each underground HDPE pipe run was approximately 500 feet. The HDPE pipe was supplied by the manufacturer in 500-foot coils. Pipe runs which were longer than 500 feet required splicing of two pipe sections, and this splicing was accomplished using a hot clamp welding machine. The pipe sections were joined using a butt joint.

Prior to welding two pipe sections, inspection was performed on the clamping device, the planer blades (used to trim and square pipe ends), and the hot plate (which was heated up to 450°F). The 1-inch HDPE pipes were inspected for irregular shape, damage, or embedded grit. During this inspection, all pipes were cleaned and the pipe ends were trimmed with the rotating planer tool until continuous shavings were cut from each end. The planning process ensured that the pipe ends were smooth, square, and ready for the welding phase. After the shavings were removed, the pipe alignment was checked and adjusted. A hotplate was placed between the pipe ends, ensuring that the pipe was properly located. Pipe sections were held in contact with the hotplate using sufficient pressure to allow the formation of a bead of molten pipe material around the pipe ends. After the beads were formed evenly

around the pipe circumference, the pressure was reduced for the 'heat soak' phase. The pipe faces were carefully moved away from the hotplate to ensure that none of the molten bead was stuck to the surface of the hotplate. The pipe ends were then brought together quickly to form a butt joint. The pipe ends were held together under pressure for a few minutes using a clamp until they were cool and the welded joint was secure. Selected photographs of the welding process are included in Appendix D.

The trenches for pipe and well vault installation were backfilled with excavated material and restored in accordance with the Work Plan. Trenches in areas at the site that were previously grassy, were backfilled in one-foot lifts and machine-compacted. Appendix D includes selected photographs of the pipe trenches excavated for pipe installation. Copies of the material property specification sheets for the HDPE compressed air underground piping are included in Appendix F.

All underground HDPE AS/BS compressed air piping transitioned into aboveground galvanized steel piping connected to the manifold legs. Each manifold consists of up to 38 individual manifold legs, each with its own pressure regulator, flowmeter, and solenoid valve.

Figure 3-3 shows a typical manifold configuration. This manifold distributes the compressed air from the air compressors to the individual manifold leg connected to each HDPE pipe (which is connected at its other end to either an AS or BS sparge well), and houses the instrumentation.

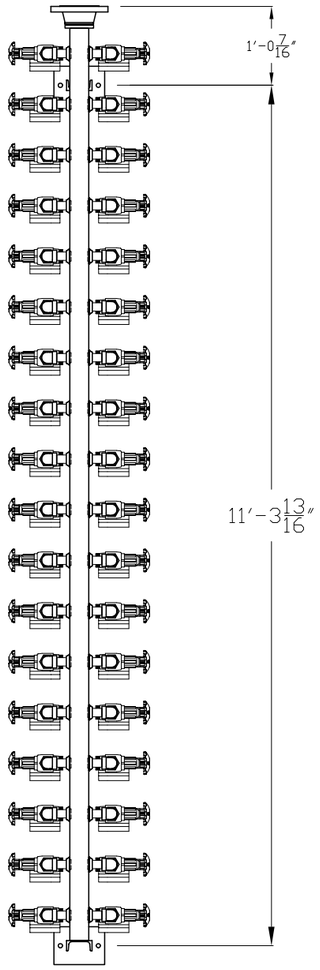
3.2.7 Installation of SVE System Collection Lines

A horizontal soil vapor collection system was installed from June 24, 2004 to July 16, 2004, using 4-inch slotted drainage pipe laid horizontally at a depth of approximately 3 to 4 feet bgs. This drainage pipe was encased in a fabric sock to prevent infiltration of sediment, and to allow moisture to wick back to the ground at the point of soil vapor extraction. The slotted drainage pipe was connected to a solid length of pipe at the boundary of the AS treatment area building area. Figure 3-4 shows the layout of the horizontal SVE collection lines.

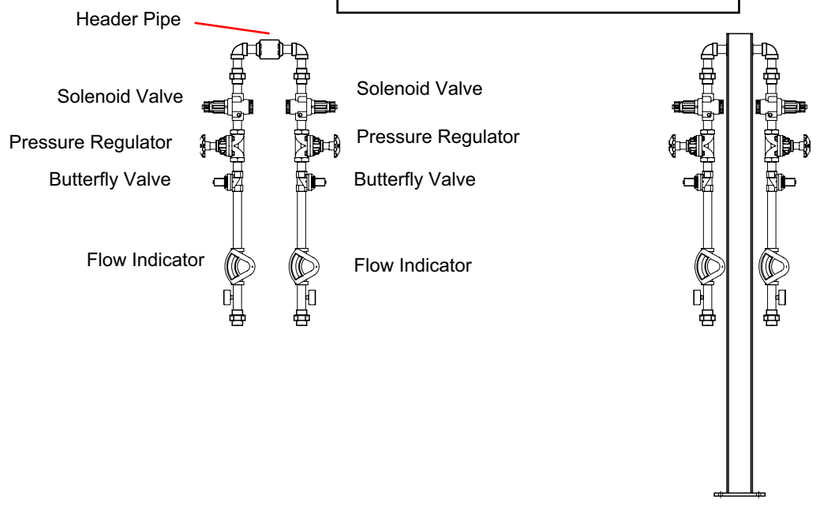
The RAPA specified 11 SVE lines to be installed above the water table. However, 3 of the 11 lines (lines 9, 10, and 11) proposed to be located on the eastern portion of the air sparging wellfield near the Sal Taylor Creek ditch could not be installed due to a persistently high water table ranging from 0 to 2 feet bgs. As a result, JVII requested Navy and FDEP concurrence to eliminate installation of these three SVE lines. Additional mass transfer calculations performed by TtNUS indicated that the elimination of these three lines would not have an adverse impact on the vapor extraction mechanism. The Navy and FDEP concurred with the request and the three SVE lines on the eastern portion of the AS wellfield were not installed.

The trenching and pipe installations were severely impacted due to an unusually active hurricane season in Florida during 2004. Construction activities at the site were shut down for several days at a time during the period September to November 2004 due to supersaturation of surface soils from heavy storms, which were part of a series of hurricanes that passed through Florida during the period.

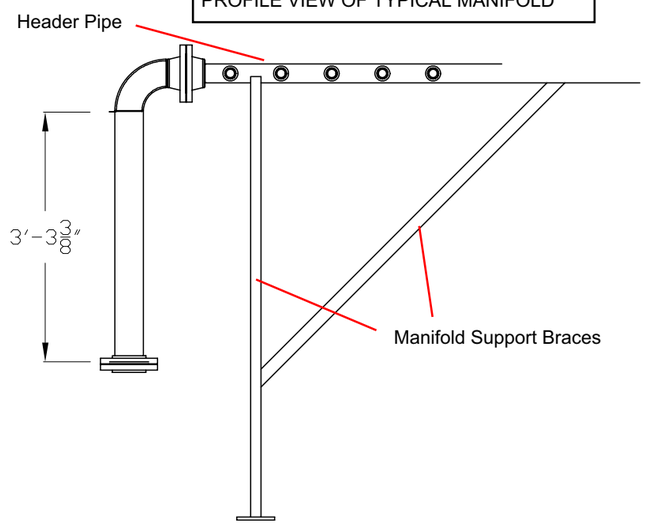
PLAN VIEW OF TYPICAL MANIFOLD



CROSS-SECTIONAL VIEWS OF TYPICAL MANIFOLD



PROFILE VIEW OF TYPICAL MANIFOLD



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ONION EQUIPMENT COMPANY
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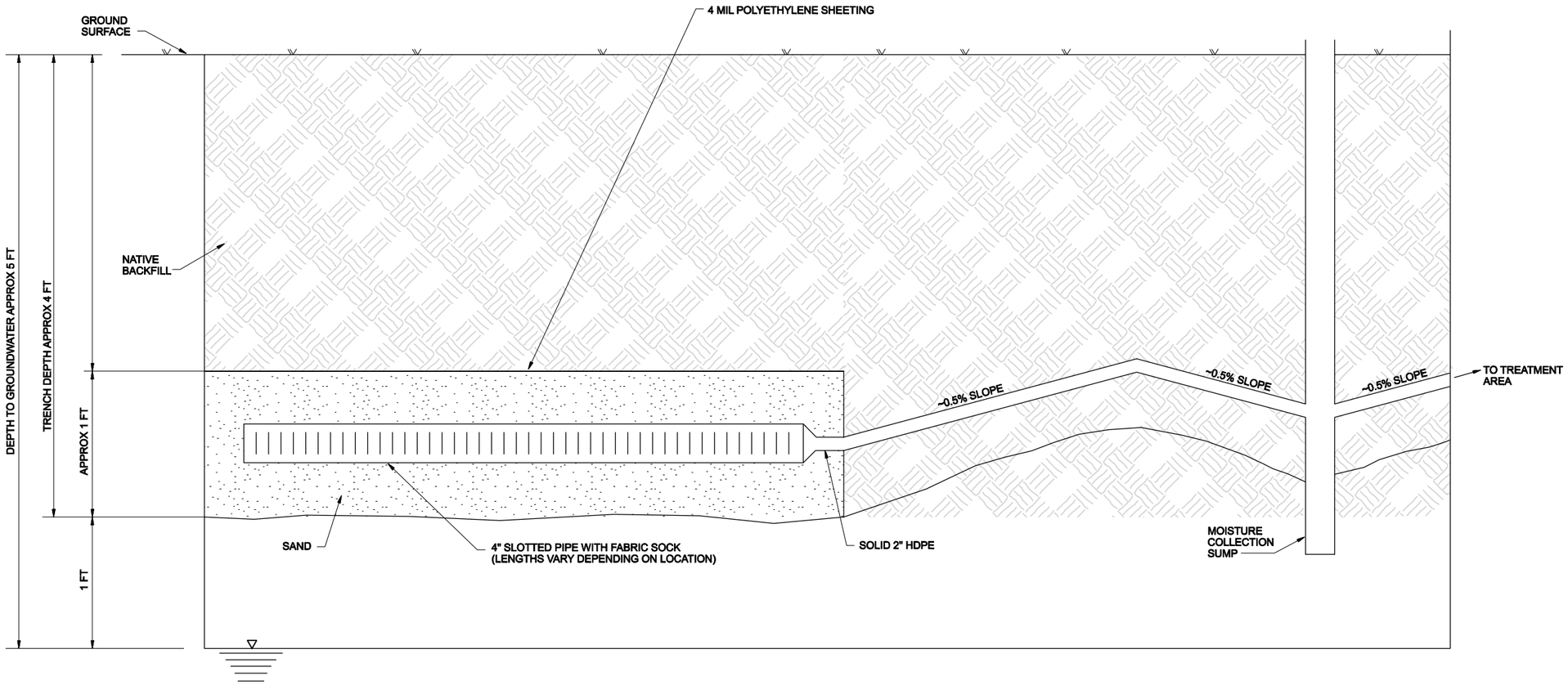
CUSTOMER	PROJECT
AGVIQ ENVIRONMENTAL SERVICES	CECIL FIELD

FIGURE 3-3 DETAILS OF AS/BS MANIFOLDS

DWN BY	CHK'D BY	APP'D BY	DATE	SCALE	JOB No.	DRAWING No.	REV
DB (TF)	TB (TF)	EP (TF)	OCT 26/04	NTS			0



SVE TRENCH DETAIL

FIGURE 3-4
SVE TRENCH DETAIL
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

AGVIQ ENVIRONMENTAL SERVICES
CH2M HILL JOINT VENTURE II

PEACHTREE/CAD1/PROJECTS/283092

ES062007015ATL JAX100.ai

15-JAN-2004 fig3-283092.dgn

3.2.8 Installation of AS/BS/SVE Treatment System and Equipment

Prior to remediation system building construction, manufacturer's catalog data for all construction materials were submitted to JVII 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 JVII Project Superintendent, Project QC Manager, and Site Health and Safety Specialist for quality and stability.

The AS/BS/SVE system equipment was provided by Onion Equipment Co. (Onion) of Naples, Florida. Stand-alone equipment and fittings were procured by Onion from the manufacturers, and the manifolds and piping were fabricated and shipped by Onion to the site.

Three concrete pads were constructed for placement of the AS/BS/SVE equipment and manifolds: control room pad (15 feet by 10 feet), AS/ BS Air compressor pad (16 feet by 16 feet), and the SVE system pad (20 feet by 10 feet). All pads were excavated down to 8 inches bgs and were 14 inches by 6 inches wide for thickened edging. Edges for concrete slabs were formed and supported using 4x4 lumbers. Number five rebar at 12 inches equivalent width (EW) was used for concrete reinforcement. 4,000 psi concrete with a 4-inch slump was used for all concrete pads. The concrete pads were leveled with screed board and smoothed with bull and hand floats. Figure 3-5 shows the layout of the treatment system area within the equipment building footprint.

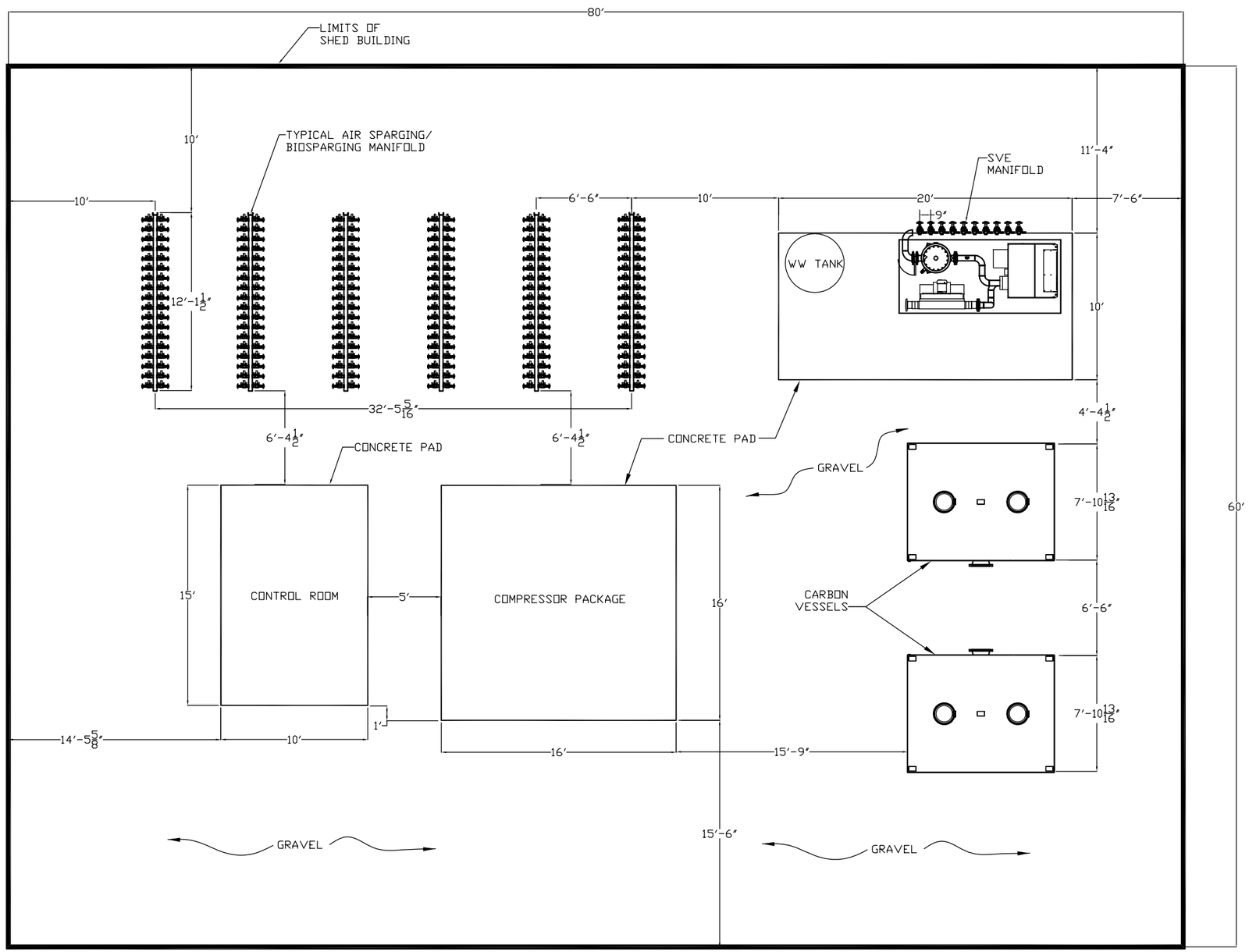
The AS/BS manifold pillars contained six manifolds with 11 feet 3 $^{3}/_{16}$-inch pillars. The holes were drilled with 12-inch auger extensions to a depth of 6 feet and 12-inch sonotubes were installed for concrete forms. Sonotubes were cut even with the equipment slab elevations and filled with 4,000 psi concrete. The manifolds were placed on pillars using string line and bolted down using concrete anchors.

Prior to system equipment installation, manufacturer's catalog data for all system equipment was submitted to JVII and approved. All system equipment utilized was inspected on receipt to the job site and was within compliance of the approved submittals. System equipment installation was conducted by Onion (the AS/BS/SVE treatment system vendor) from November 15, 2004 to December 28, 2004, in accordance with the manufacturer's recommendations and the specifications provided in the Work Plan.

The AS/BS system consists of a Kaeser Model DSD 150 screw air compressor with a 1,040-gallon vertical air receiver tank, Kaeser oil water separator model Aquamat 6, three Kaeser automatic magnetic drains, Autojet Technologies 125 OAF Automated Spray System, Dwyer see-flow flowmeter, and associated galvanized piping, fittings, and valves.

The SVE system consists of a Kaeser Rotary Blower Package (Model DB 165C pr/20 Hp), a Grundfos horizontal, single stage end-suction pump, two Tetrasolv VF-10000 series carbon filter vessels each with 10,000 pounds of granular activated carbon, Dwyer VFA flowmeter, and associated galvanized piping, fittings, and valves.

Specifications of these equipment and fittings are included in the Operation and Maintenance Manual previously provided under separate cover to the Navy ROICC.



N

1/8" = 1'

FIGURE 3-5
TREATMENT SYSTEM EQUIPMENT LAYOUT
NORTH FUEL FARM SITE
NAS CECIL FIELD
Jacksonville, FL.

AGVIQ ENVIRONMENTAL SERVICES
CH2M HILL JOINT VENTURE II

ES062007015ATL JAX101.ai

ATL/CAD1/PROJECTS/283092_Cecil_Field/OCE Proposed Site Layout-9.15.04.dwg

As-built drawings of the equipment compound layout, the process and instrumentation diagram, and manifold detail diagrams are provided in Appendix G. Selected site photographs of the AS/BS/SVE equipment installation are included in Appendix D.

Prior to installing electrical connections for the system equipment, manufacturer's catalog data for all electrical materials were submitted to JVII for approval. All electrical materials utilized were inspected upon receipt to the job site and were within compliance of the Work Plan. Electrical installation was conducted by C and C Powerline, Inc. from October 28, 2004 to January 26, 2005 and coordinated with the Jacksonville Electric Authority (JEA). Electrical installations were performed in accordance with the manufacturer's recommendations, National Electric Code, and the specifications provided in the Work Plan. Following electrical installation, the system was tested to ensure that proper voltage was being delivered to the system equipment and that adequate lightning protection was provided. The electrical system installation was inspected and approved by JEA inspectors prior to startup of the treatment system. Additionally, C and C Powerline, Inc. installed a high speed data communication line on January 28, 2005, to facilitate remote access to the treatment system control panels. Overhead lights within the treatment system canopy building were installed on March 22, 2005.

The treatment system canopy building was constructed by The Dakota Company, Jacksonville, Florida. from February 7, 2005 to March 21, 2005, in accordance with the specifications in the Work Plan, approved submittals, manufacturer's instructions, and standard industry practice. The steel canopy building consists of a steel frame structure with the columns resting on reinforced concrete footings, and a steel-framed corrugated aluminum roof. A copy of the as-built drawings submitted by The Dakota Company showing construction details of the building is included in Appendix G.

In-place density tests were conducted on the subgrade prior to pouring the concrete pad. One concrete core was collected from each concrete slab soon after it was poured. These cylindrical cores were tested at an offsite materials testing laboratory for compressive strength. Test results indicated achievement of greater than 95 percent of the required compressive strength for the 4,000 psi concrete after 28 days of curing as required by the specifications in the Work Plan. Copies of the test results are included in Appendix H.

3.2.9 Waste Disposal Characterization Sampling and Analysis

Waste characterization sampling of petroleum-contaminated soil and purge water generated during the installation of AS/BS wells was conducted on August 19, 2004. Waste characterization sampling and analysis was completed in accordance with the Work Plan.

Waste characterization samples for were shipped to Gulf Coast Analytical Laboratories for analysis in accordance with procedures detailed in the Work Plan.

The petroleum contaminated soil was laboratory analyzed for the following parameters:

- Toxicity Leaching Characteristic Procedure (TCLP) volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Method 1311/8260B
- TCLP semi-volatile organic compounds (SVOCs) by EPA Method 1311/8270C
- TCLP metals by EPA Method 1311/6010B/7470A

- TCLP pesticides by EPA Method 1311/8081A
- TCLP herbicides by EPA Method 1311/8151A
- Polychlorinated biphenyls (PCBs) by EPA Method 8082
- Corrosivity by EPA Method 9045A
- Ignitability by EPA Method 1010/1020
- TRPH by the Florida Petroleum Residual Organic (FL-PRO) Method

The petroleum contact water (PCW) was laboratory analyzed for the following parameters:

- Target Compound List (TCL) VOCs by EPA Method 8260B
- TCL SVOCs by USEPA Method 8270C
- Total Analyte List (TAL) metals by EPA Method 6010B/7470A
- TCL pesticides by EPA Method 8081A
- TCL herbicides by EPA Method 8151A
- PCBs by EPA Method 8082
- Corrosivity by EPA Method 9040B
- Ignitability by EPA Method 1010
- TRPH by the FL-PRO Method

A copy of the offsite laboratory analytical results report for waste characterization samples is included in Appendix I.

3.2.10 Transportation and Disposal of Accumulated or Generated Wastes

Prior to offsite disposal, waste profile packages were prepared and provided to the NTR for approval and signature. Based on the waste characterization sampling and analysis, wastes were characterized as non-hazardous petroleum contaminated. Once the profile approval was received, manifests were generated and provided to the Public Works Center (PWC) for signature.

A total of 98 fifty-five-gallon drums of investigation-derived wastewater were transported on October 5, 2004 by Environmental Remediation Services, Inc. for disposal at Water Recovery, Inc. The waste profile, manifests, and certificates of disposal are provided in Appendix I.

A total of 62 fifty-five-gallon drums of petroleum-contaminated drill cuttings (soil) were transported on October 4, 2003 by Environmental Remediation Services, Inc. for disposal at Chesser Island Landfill, Inc. Copies of the waste manifests are included in Appendix I. The T&D Log is provided in Appendix J.

3.2.11 System Startup

System startup was performed on July 11, 2005 in accordance with the manufacturer's instructions and the Work Plan. System startup data is included in the Annual Operations and Maintenance Monitoring Report (JVII, 2007).

3.3 Problems Encountered and Corrective Actions Undertaken

Overall problems at the NFF area were minimal. The following specific problems were addressed and remedied at the NFF area:

- During the AS system start-up testing due to the simultaneous operation of AS and BS wells, a pressure surge in the subsurface caused an upwelling of the shallow water table. This resulted in a geyser of water from several monitoring wells and heaving of the ground surface in one area within the shallow air sparging zone due to the close proximity of the wells during air sparging.

  Corrective Action Taken: The AS/BS/SVE System was shutdown and the wellheads were retrofitted with compression slip fittings and a threaded cap. Monitoring wells selected for quarterly monitoring were retrofitted with a ball valve to enable venting of pressure prior to sampling activities. One recirculation well which was installed for a pilot study of recirculating well technology by a previous contractor was abandoned by Zebra Environmental, Inc. (Zebra) using approved grout. Zebra secured a permit for abandonment from the St. Johns River Water Management District (SJRWMD) prior to well abandonment and filed a well abandonment report with SJRWMD after completion of well abandonment.

- Due to the high water table at the site, the soil vapor collection lines 11, 12, and 13 could not be installed. Additionally, entrainment of water in the SVE system due to the high water table caused repeated shutdowns of the AS/BS/SVE system resulting from repeated triggering of the high-level alarm installed in the SVE system's moisture collection tank.

  Corrective Action Taken: An additional drainage line was installed to the moisture collection tank and connected to a nearby sewer manhole operated by the JEA. A discharge permit was secured from JEA prior to discharge of the condensate water and groundwater collected in the SVE moisture collection tank.

- Severe weather caused by three hurricanes caused severe delays throughout September, October and November of 2004

  Corrective Action Taken: Construction activities were halted during severe weather and until the water table subsided to safe levels to allow construction to proceed.

4.0 Initial Inspection and Site Status Summary

A final walkthrough and site inspection was conducted by the Navy and JVII on November 17, 2005 to ensure that the construction of the treatment system had been satisfactorily completed in compliance with the specifications and methods stated in the Work Plan.

4.1 Participants

The following individuals participated in the final inspection:

- ROICC, Ms. Brenda Schwelling
- Navy Construction Inspector, Mr. Arthur Mosley
- Navy Construction Inspector, Mr. Roberto Santos
- JVII Project Manager, Mr. Joseph Colella
- JVII Assistant Project Manager, Mr. Sam Naik
- JVII Project Superintendent, Mr. Scott Hendershot
- JVII Project QC Manager, Mr. Randy Dumaop

4.2 Deficiencies

During the inspection, no punchlist items were identified for follow-up or correction. A copy of the site walk and final inspection results is included in Appendix K.

4.3 Resolution of Deficiencies

None required.

4.4 Site Status Summary

As documented in this Construction Completion Report, JVII completed the following scope of work:

- Completed mobilization and site preparation activities.
- Completed utility locates by executing an excavation permit with J. A. Jones Global Services and Sunshine State One Call Service of Florida.
- Completed a pre-construction site survey.
- Installed horizontal soil vapor collection system.
- Installed an AS/BS system, to include:

- Installation of 48 shallow AS wells to a depth of 50 feet bgs and the associated well vaults, piping, valves, meters, and controls.
- Installation of 34 deep AS wells to a depth of 110 feet bgs and the associated well vaults, piping, valves, meters, and controls.
- Installation of 21 shallow BS wells to a depth of 50 feet bgs and the associated well vaults, piping, valves, meters, and controls.
- Installation of 110 shallow BS wells to a depth of 110 feet bgs and the associated well vaults, piping, valves, meters, and controls.
- Installation of horizontal soil vapor collection system.
- Construction of a treatment system compound consisting of three 6-inch thick, 4,000 psi strength, fibermesh reinforced concrete pads covered by a steel-framed corrugated aluminum roof.
- Installation of an air compressor and associated utilities and ancillary hardware for the AS/BS system.
- Trenching and installation of 1-inch diameter HDPE and galvanized steel piping to connect the AS/BS wells to the respective treatment system components.
- Start-up and optimization of treatment system operation.

- Completed the decontamination of all equipment.
- Completed the transportation and disposal of all generated wastes.
- Completed site restoration.
- Demobilized all personnel and equipment.

Based on the completed construction activities documented in this Construction Completion Report, JVII has completed the scope of work to achieve the project objectives as stated in the Work Plan.

5.0 References

AGVIQ-CH2M HILL JVII. 2004. *Work Plan, Installation, Operation, Maintenance and Monitoring of Air Sparge, Bio-Sparge and SVE System for North Fuel Farm Area Remediation Project, Former Naval Air Station Cecil Field, Jacksonville, Florida.* January.

AGVIQ-CH2M HILL JVII. 2007. *Annual Operations and Monitoring Status Report, Air Sparge, Biosparge and SVE System, North Fuel Farm Area Remediation Project, Naval Air Station Cecil Field, Jacksonville, Florida, July 2005 – September 2006.* February.

TetraTech NUS, Inc. 2004. *Final Remedial Action Plan Addendum for North Fuel Farm, Naval Air Station, Cecil Field, Jacksonville, FL.* June.

Appendix A

Submittal Register

Submittal Register

Contract Number: N62467-03-D-0260			CTO No.:0001		TO Title: Furnish, Install, Operate and Maintain Air Sparge, Biosparge and Soil Vapor Extraction System (AS-BS-SVE) for the NFF Area Site						Location: NAS Cecil Field, Jacksonville, Florida				Contractor: AGVIQ -CH2M HILL JVII		
A		B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Item Number	Spec Section	Item Description	Para. Number	Approving Authority	Other Reviewers	Submittal Number	Scheduled Submission Date	JVII Review Date	JVII Disposition	JVII Transmit Date	QC Admin Received Date	QC Disposition	QC Admin Transmit Date	Contracting Officer Received	Contracting Officer Disposition	Contracting Officer Return	Remarks
	DIV 1	General Requirements															
		SD-09, Reports	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1	01010 A	Work Plan	1.2.1.1	NTR	FDEP	283092-SD-09-100				1/16/2004							
2	01010 B	Narrative	1.2.1.1.a	NTR		283092-SD-09-200				1/16/2004							
3	01010 C	Technical Specifications	1.2.1.1.b	NTR		283092-SD-09-300				1/16/2004							
4	01010 D	Manufacturer's Catalog Data	1.2.1.1.c	NTR		283092-SD-09-400											
5	01010 E	Health and Safety Plan	1.2.1.1.d	NTR		283092-SD-09-500				1/16/2004							
6	01010 F	QA/QC Plan	1.2.1.1.e	NTR		283092-SD-09-600				1/16/2004							
7	01010 G	Sampling and Analysis Plan	1.2.1.1.f	NTR		283092-SD-09-700				1/16/2004							
8	01010 H	Decontamination Procedures	1.2.1.1.g	NTR		283092-SD-09-800				1/16/2004							
9	01010 I	Material Safety Data Sheets	1.2.1.1.h	NTR		283092-SD-09-900											
		SD-18, Records	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	01010 A	As Built Records	1.3.1.1	ROICC		283092-SD-18-3000											
11	01010 B	Environmental Conditions Report	1.3.1.2	ROICC		283092-SD-18-200											
12	01010 C	Test Results Summary Report	1.3.1.3	ROICC		283092-SD-18-300	Monthly										
13	01010 D	Daily Production Report	1.3.1.4	ROICC		283092-SD-18-400	Daily										
14	01010 E	Daily QC Report	1.3.1.5	ROICC		283092-SD-18-500	Daily										
15	01010 F	Rework Items List	1.3.1.6	ROICC		283092-SD-18-600	Monthly										
16	01010 G	Permits	1.3.1.7	ROICC		283092-SD-18-700	As Req'd										
17	01010 H	Construction Documentation Report	1.3.1.8	ROICC		283092-SD-18-800											
	DIV 1	Remediation System Installation and Performance															
		SD-02, Manufacturer's Catalog Data	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18	01012 A	Well Heads and Covers	3.5	JV II	TetraTech	283092-SD-02-100		10/12/2004	A		10/12/2004	A	10/12/2004	10/12/2004			A
19	01012 B	Air Sparge/Biosparge Well Materials	2.2.1.1	JV II	TetraTech	283092-SD-02-200		6/14/2004	A	6/21/2004	6/21/2004	A	6/21/2004	6/21/2004			
20	01012 C	Air Sparge/Biosparge Piping	2.2.1.2	JV II	TetraTech	283092-SD-02-300		7/2/2004	A	7/2/2004	7/2/2004						
21	01012 D	Compressor Filter/Silencers	2.2.1.3.1	JV II	TetraTech	283092-SD-02-400		7/2/2004	A	7/2/2004	7/2/2004						
22	01012 E	Air Sparge/Biosparge Controls	2.2.1.3.2	JV II	TetraTech	283092-SD-02-500		7/2/2004	A	7/2/2004	7/2/2004						
23	01012 F	Air Sparge/Biosparge Flow meters	2.2.1.3.3	JV II	TetraTech	283092-SD-02-600		7/2/2004	A	7/2/2004	7/2/2004						
24	01012 G	Air Sparge/Biosparge Pressure Gauges	2.2.1.3.4	JV II	TetraTech	283092-SD-02-700		7/2/2004	A	7/2/2004	7/2/2004						
25	01012 H	Air Sparge/Biosparge Valves	2.2.1.3.5	JV II	TetraTech	283092-SD-02-800		7/2/2004	A	7/2/2004	7/2/2004						
26	01012 I	Air/Water Separator	2.2.1.3.1	JV II	TetraTech	283092-SD-02-900		7/2/2004	A	7/2/2004	7/2/2004						
27	01012 J	Transfer Pump	2.2.1.3.1	JV II	TetraTech	283092-SD-02-1000		7/2/2004	A	7/2/2004	7/2/2004						
28	01012 K	Waste Holding Tank	2.2.1.3.1	JV II	TetraTech	283092-SD-02-1100		7/2/2004	A	7/2/2004	7/2/2004						
29	01012 L	SVE Piping and Materials	2.3.1.2	JV II	TetraTech	283092-SD-02-1200		8/17/2004	A								
30	01012 M	SVE Flow Indicators	2.3.1.3.3	JV II	TetraTech	283092-SD-02-1300		7/2/2004	A	7/2/2004	7/2/2004						
31	01012 N	SVE Blower w/Silencer	2.3.1.3.1	JV II	TetraTech	283092-SD-02-1400		7/2/2004	A	7/2/2004	7/2/2004						
32	01012 O	Nitrous Oxide System		JV II	TetraTech	283092-SD-02-1500		1/17/2005	A	1/17/2005	1/17/2005						
33	01012 P	Triethyl Phosphate System		JV II	TetraTech	283092-SD-02-1600		1/17/2005	A	1/17/2005	1/17/2005						
34	01012 Q	Moisture Separator		JV II	TetraTech	283092-SD-02-1700		7/2/2004	A	7/2/2004	7/2/2004						
35	01012 R	Granular Activated Carbon Vessels		JV II	TetraTech	283092-SD-02-1800		7/2/2004	A	7/2/2004	7/2/2004						
36	01012 S	Compound Construction Materials	3.7	JV II	TetraTech	283092-SD-02-1900		2/1/2005	A	2/1/2005	2/1/2005						
36	01012 T	Fencing and Gate Materials	3.8	JV II	TetraTech	283092-SD-02-2000		2/1/2005	A	2/1/2005	2/1/2005						
		SD-04, Drawings	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37	01012 A	Well Heads and Covers	1.2.2.a	JV II	TetraTech	283092-SD-04-100		10/12/2004	A	10/12/2004	10/12/2004	A	10/12/2004	10/12/2004			A
39	01012 B	Preconstruction AS/BS/SVE System Layout	1.2.2.b	JV II	TetraTech	283092-SD-04-200		11/8/2004	A	11/8/2004	11/8/2004	A					
40	01012 C	Preconstruction Treatment Compound Layout	1.2.2.d	JV II	TetraTech	283092-SD-04-300		11/8/2004	A	11/8/2004	11/8/2004	A					
41	01012 D	Final As-builts	1.2.2.e	ROICC		283092-SD-04-400		1/24/2006	A	1/24/2006							
		SD-12, Field Test Reports	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Submittal Register

Contract Number: N62467-03-D-0260			CTO No.:0001		TO Title: Furnish, Install, Operate and Maintain Air Sparge, Biosparge and Soil Vapor Extraction System (AS-BS-SVE) for the NFF Area Site						Location: NAS Cecil Field, Jacksonville, Florida				Contractor: AGVIQ -CH2M HILL JVII		
A		B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Item Number	Spec Section	Item Description	Para. Number	Approving Authority	Other Reviewers	Submittal Number	Scheduled Submission Date	JVII Review Date	JVII Disposition	JVII Transmit Date	QC Admin Received Date	QC Disposition	QC Admin Transmit Date	Contracting Officer Received	Contracting Officer Disposition	Contracting Officer Return	Remarks
42	A	Calibration Tests	3.13	JV II		283092-SD-12-100		2/14/2005									
43	B	Well Construction Records	3.4	JV II		283092-SD-12-200		9/2/2004	A								
44	C	O&M Reports	3.14	JV II		283092-SD-12-300		2/1/2007	A	2/7/2007	2/1/2007	2/7/2007	2/8/2007				
45	D	Pipe Pressure Tests	3.12.1	JV II		283092-SD-12-400											
46	E	Air Emissions Analytical Tests	3.13	JV II		283092-SD-12-500											
		SD-18, Records	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
47	A	Well Driller Certification	3.4	JV II		283092-SD-18-900		6/14/2004									
48	B	Permits	1.2.4.b	JV II		283092-SD-18-1000		6/14/2004									
49	01012 C	MSDS Sheets	1.2.4.c	JV II		283092-SD-18-1100		6/14/2004	A	6/21/2004	6/21/2004	A	6/21/2004	6/21/2004			
		SD-19, O&M Manuals	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
50	A	Air Sparge/Biosparge Unit	1.2.5.a	ROICC		283092-SD-19-100		10/1/2005									
51	B	Power and Control Panels	1.2.5.c	ROICC		283092-SD-19-200		1/10/2005									
52	C	Wiring Diagrams	1.2.5.d	ROICC		283092-SD-19-300		1/10/2005									
53	D	Startup, Operating, and Shut-down Procedures	1.2.5.e	ROICC		283092-SD-19-400		1/10/2005									
54	E	Safety Precautions	1.2.5.f	ROICC		283092-SD-19-500		1/10/2005									
55	F	Failure Procedures	1.2.5.g	ROICC		283092-SD-19-600		1/10/2005									
		SD-08, Statements	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
56	A	Sample Log	1.1.1.1	ROICC		283092-SD-08-100		Quarterly						Quarterly			
		SD-12, Field Test Reports	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
57	A	Disposal Sample Analytical Results	1.1.2.1	ROICC		283092-SD-12-600		Quarterly						Quarterly			
58	B	Screening Sample Results	1.1.2.2	ROICC		283092-SD-12-700		Quarterly						Quarterly			
59	C	O&M Sample Analytical Results	1.1.2.3	ROICC		283092-SD-12-800		Quarterly						Quarterly			
60	1430 D	Electronic Copy of All Analytical Results	--	ROICC		283092-SD-12-900		Quarterly						Quarterly			
		SD-13, Certificates	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
61	1430 A	Laboratory Certification	1.4.2	ROICC		283092-SD-13-100		9/1/2004									
	DIV 2	**Site Construction**															
		SD-02, Manufacturer's Catalog Data	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
62	2220 A	Fill Materials	2.1	ROICC		283092-SD-02-2100		N/A									
63	2220 B	Grass Seed	3.5.2	ROICC		283092-SD-02-2200		3/25/2005									
104	C	Rebar - Equipment Pads				283092-SD-02-2205		1/20/2005									
		SD-12, Field Test Reports	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
64	2220 A	Backfill Compaction Tests		ROICC		283092-SD-12-1000		10/7/2004									
102	B	Compaction Test - Eqpt Pads				283092-SD-12-1005		10/7/2004									
		SD-08, Statements	--	--	--	--	--		--	--	--	--	--	--	--	--	--
65	2223 A	Treatment Facility Permit	1.1.1.1	ROICC		283092-SD-08-200		N/A									
		SD-18, Records	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
66	2223 A	Shipment Manifests	1.1.2.1	ROICC		283092-SD-18-1200		10/5/2004									
67	2223 B	Delivery Tickets - eqpt pad concrete	1.1.2.2	ROICC		283092-SD-18-1300		9/30/2004									
68	2223 C	Disposal Site Decontamination Certificate	1.1.2.3	ROICC		283092-SD-18-1400											
69	2223 D	Work Site Decontamination Certificate	1.1.2.4	ROICC		283092-SD-18-1500											
70	2223 E	Treatment and Disposal Certificate	1.1.2.5	ROICC		283092-SD-18-1600											
103	F	Equipment Pad Construction Detail				283092-SD-18-1605		1/10/2005									
105	G	Well Heads and Covers: Limerock		ROICC		283092-SD-18-1610	10/12/2004	10/12/2004									
		SD-08, Statements	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
71	2571 A	Paving Materials		ROICC		283092-SD-08-300		N/A									
	DIV 3	**Concrete**															
		SD-08, Statements	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
72	3302 A	Concrete Mix Design	2.1.1	ROICC		283092-SD-08-400		9/30/2004									

Submittal Register

Contract Number: N62467-03-D-0260			CTO No.:0001		TO Title: Furnish, Install, Operate and Maintain Air Sparge, Biosparge and Soil Vapor Extraction System (AS-BS-SVE) for the NFF Area Site						Location: NAS Cecil Field, Jacksonville, Florida				Contractor: AGVIQ -CH2M HILL JVII		
A		B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Item Number	Spec Section	Item Description	Para. Number	Approving Authority	Other Reviewers	Submittal Number	Scheduled Submission Date	JVII Review Date	JVII Disposition	JVII Transmit Date	QC Admin Received Date	QC Disposition	QC Admin Transmit Date	Contracting Officer Received	Contracting Officer Disposition	Contracting Officer Return	Remarks
		SD-12, Field Test Reports	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	DIV 16	**Electrical Work**															
		SD-02, Manufacturer's Catalog Data	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
73	16370	A Conduit	2.3	JV II		283092-SD-02-2300		2/1/2005									
74	16370	B Conductors	2.3	JV II		283092-SD-02-2400		2/1/2005									
75	16370	C Meter Base	2.4	JV II		283092-SD-02-2500		2/1/2005									
76	16370	D Meter	3.1.3	JV II		283092-SD-02-2600		2/1/2005									
		SD-02, Manufacturer's Catalog Data	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
77	16402	A Electrical Switches and Circuit Breakers	2.8	JV II		283092-SD-02-2700		2/1/2005									
78	16402	B Motor Controllers	2.14	JV II		283092-SD-02-2800		2/1/2005									
79	16402	C Control Panel	1.3.1.c	JV II		283092-SD-02-2900		2/1/2005									
80	16402	D Conduit and Fittings	2.2	JV II		283092-SD-02-3000		2/1/2005									
81	16402	E Conductors	2.5	JV II		283092-SD-02-3100		2/1/2005									
		SD-04, Drawings	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
82	16402	A Electrical Line Diagram	1.3.2.a	JV II		283092-SD-04-500		2/1/2005									
83	16402	B Control Panel	1.3.2.b	JV II		283092-SD-04-600		2/1/2005									
84	16402	C Final As-builts	1.3.2.c	JV II		283092-SD-04-700		5/25/2005									
		SD-08, Statements	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
85	16402	A Fuses	2.11	JV II		283092-SD-08-500		2/1/2005									
		SD-12, Field Test Reports	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
86	16402	A 600-volt Wiring Test	3.2.2	JV II		283092-SD-12-1100		5/1/2005									
87	16402	B GFCI Receptacle Test	3.2.3	JV II		283092-SD-12-1200		5/1/2005									
88	16402	C Grounding System Test	3.2.4	JV II		283092-SD-12-1300		5/1/2005									
		SD-19, O&M Manuals	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
89	16402	A Power and Control Panels	1.3.5.a	JV II		283092-SD-19-100		1/10/2005									
90	16402	B Wiring Diagrams, Control Diagrams, and Control Logic	1.3.5.b	JV II		283092-SD-19-200		1/10/2005									
100		Utility Locate Survey		JV II		283092-SD-18-100		6/16/2004	A	6/22/2004	6/22/2004	A	6/22/2004	6/22/2004			
101		Utility Locate Survey		JV II		283092-SD-18-101		8/19/2004	A								
106						283092-SD-18-102											

NOTE: next item number is 107

Appendix B

Gopher Tortoise Survey Notes and Related Correspondence/ Tree Clearing Permits

March 24, 2004

Mr. Rick McCann
Florida Fish and Wildlife Conservation Commission
620 S. Meridian Street
Tallahassee, FL 32399-1600

Re: North Fuel Farm at Cecil Field

Dear Mr. McCann:

Thank you for taking the time to discuss the possible options AGVIQ/CH2M HILL Joint Venture II (JV II) has for handling gopher tortoises during the construction of a remediation system at the North Fuel Farm (NFF), a contaminated site at Cecil Field (See attached site location map). The project will involve clearing approximately 4 acres of forested area and installing an air sparging/soil vapor extraction treatment system consisting of approximately 208 wells, the treatment equipment, and the associated piping over a total of 17 acres. The wells will be used for air sparging and biosparging. Additional trenches will be installed for soil vapor extraction. The NFF is located in the northwest corner of Aviation Avenue and Loop Road and formerly contained six (6) 595,00 gallon JP-5 jet fuel storage tanks. A release of approximately 900,000 gallons of fuel occurred in 1991. In 2000 and 2001, all the tanks, the earth mound surrounding the tanks, and contaminated soil were removed.

The purpose of this correspondence is to request an incidental take permit for proposed impacts to 1 gopher tortoise burrow (*Gopherus polyphemus*) that appeared to be inactive during a site evaluation conducted on March 15, 2004. JV II intends to compensate for the incidental take of the inactive burrow (assuming it is active) by purchasing the appropriate acreage in the FFWCC mitigation park. Using the conversion factor of 0.614 recommended by Auffenberg and Franz (1982), and the area of suitable habitat that will be impacted (6.9 ac), we estimate a density of approximately 0.09 tortoises/acre. We understand that the mitigation required for densities less than 0.4 tortoises/acre is prorated assuming no mitigation for 0 tortoises/acre and 15 percent for 0.4 tortoises/acre. Using that approach, 0.03 acres of mitigation would be required.

On March 15, 2004, CH2M HILL biologists surveyed the site for gopher tortoise burrows. The enclosed site plan shows the locations of the six burrows that we documented. Five of the burrows were considered abandoned and 1 was inactive. The site was surveyed by walking transects back and forth across the entire site. Gopher tortoise burrows were identified and classified as active, inactive, or abandoned, based on evidence of recent use according to the

2121 Abbott Road
Anchorage, Alaska 99507-4453
(907) 365-6299 · FAX (907) 365-6291

115 Perimeter Center Place, N.E. · Suite 700
Atlanta, Georgia 30346
(770) 604-9095 · FAX (770) 604-9282

classification scheme for burrow condition developed by the Florida Fish and Wildlife Conservation Commission.

Approximately 13.7 acres of the project area consists of ruderal open field and planted pine forest. The field is characterized by intermittent mounded soil and scrape areas, and vegetated by grasses such as broomgrass *(Andropogon virginicus)*, weedy forbs, greenbrier and blackberry vines (*Smilax* and *Rubus spp.*) and low shrubs including gallberry (*Ilex opaca*) and blackberry (*Rubus* sp.). Wetland vegetation including cattail (*Typha* sp.), sedges (*Carex* spp.) and rushes (*Juncus* sp.) occur in the lower scrape areas. The planted pine forest is vegetated with canopy species slash and loblolly pine (*Pinus elliotti* and *P. taeda*), with a dense subcanopy of gallberry, blackberry, and greenbrier.

Approximately half of the un-paved project area (6.9 ac) appears to provide fair habitat for gopher tortoise. The dense subcanopy in the pine forest limits growth of grasses and forbs for foraging, as well as sunny areas preferred for nesting. The ruderal field provides some areas of suitable forage and nesting habitat, although large areas of the field are densely vegetated in low-growing gallberry and greenbrier with limited forage grass and forbs.

The Soil Survey of City of Jacksonville Duval County, Florida (NRCS 1978) maps the project site as Boulogne and Leon fine sands, 0 to 2 percent slopes, and Evergreen-Wesconnet complex, depressional, 0 to 2 percent slopes. The soil survey describes these to be nearly level, poorly or somewhat poorly drained soils. The project site shows signs of historic earthwork including several man-made ditches, and silviculture in the forested areas.

We request you to review the enclosed documents and notify us if additional information is needed before a take permit can be issued. Please call me if you have any questions about the site or to schedule a field visit. We would be happy to meet you at the site during your visit to Jacksonville next week.

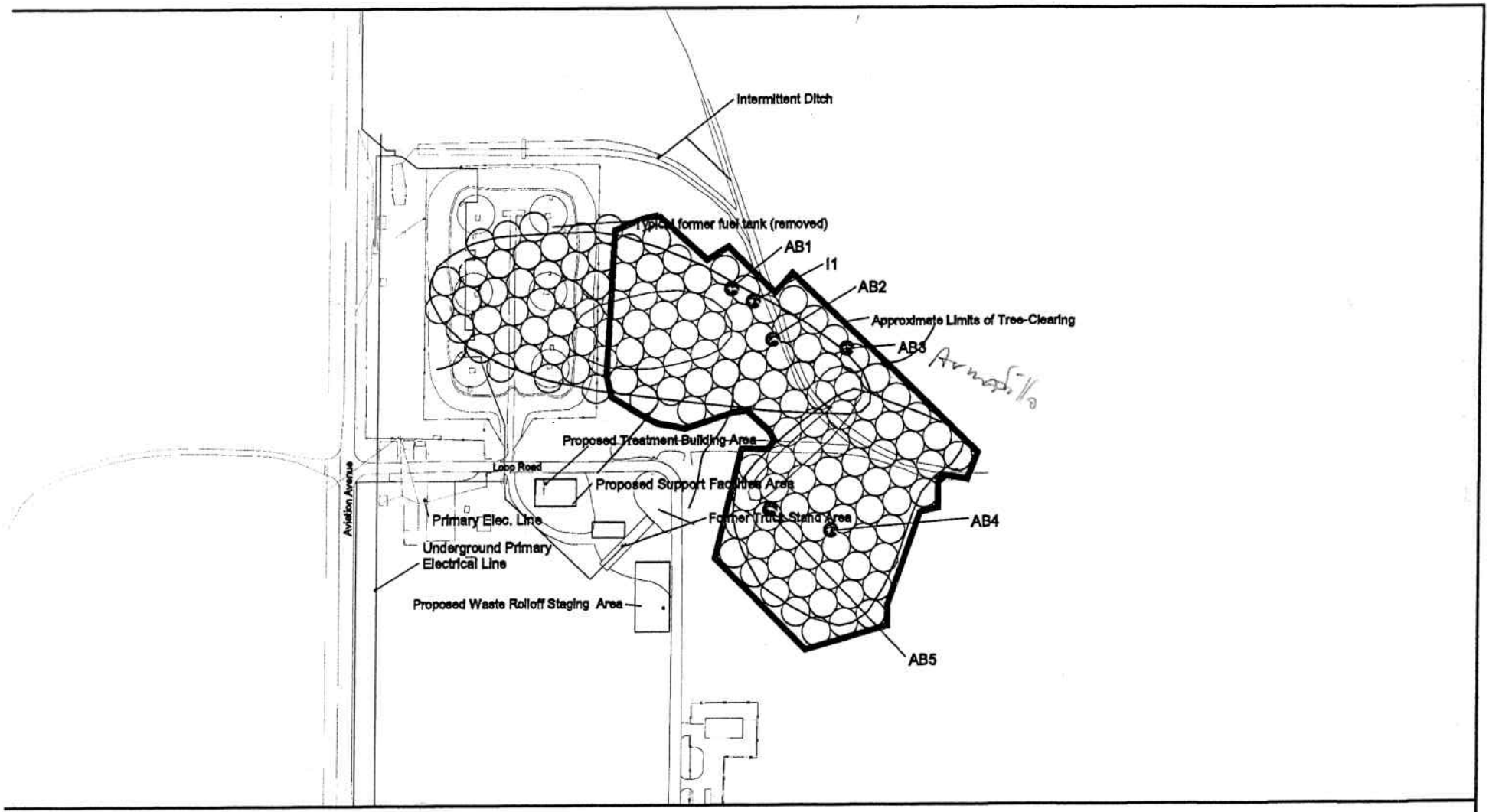
Sincerely,

CH2M HILL

R. Walter Ogburn III

R. Walter Ogburn III, Ph.D.
Senior Environmental Scientist

cc: Joseph Colella/CH2M HILL
Scott Hendershot/AGVIQ
Project File No. 283092



AB1: Abandoned Gopher Tortoise Burrow
I1: Inactive Gopher Tortoise Burrow

Sparge Well Locations

N

0 100 200 Feet

1 Inch = 196 feet

Figure 1
Locations of Gopher-Tortoise Burrows
NFF Site, NAS Cecil Field
Jacksonville, FL

CH2MHILL

Gopher Tortoise Survey

Project: Cecil Field

A active
B abandoned
I inactive

Date: 3.15.04

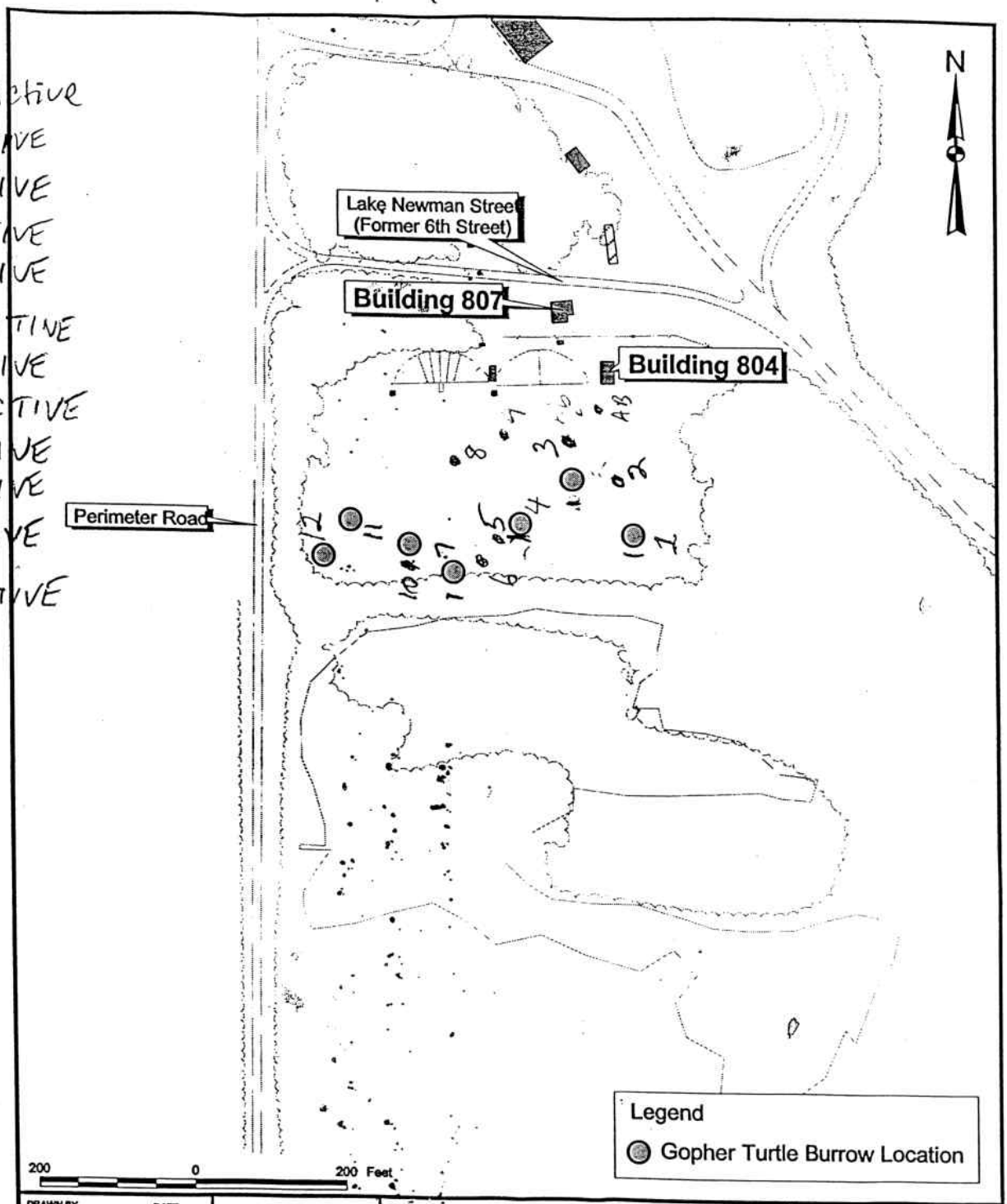
Performed By: Martha Klein, Leslie Baechler

Project No.

Burrow No.	Status	Notes
1	B	
1	I	
2	B	
3	B	
4	B	no pink flag
5	B	no pink flag

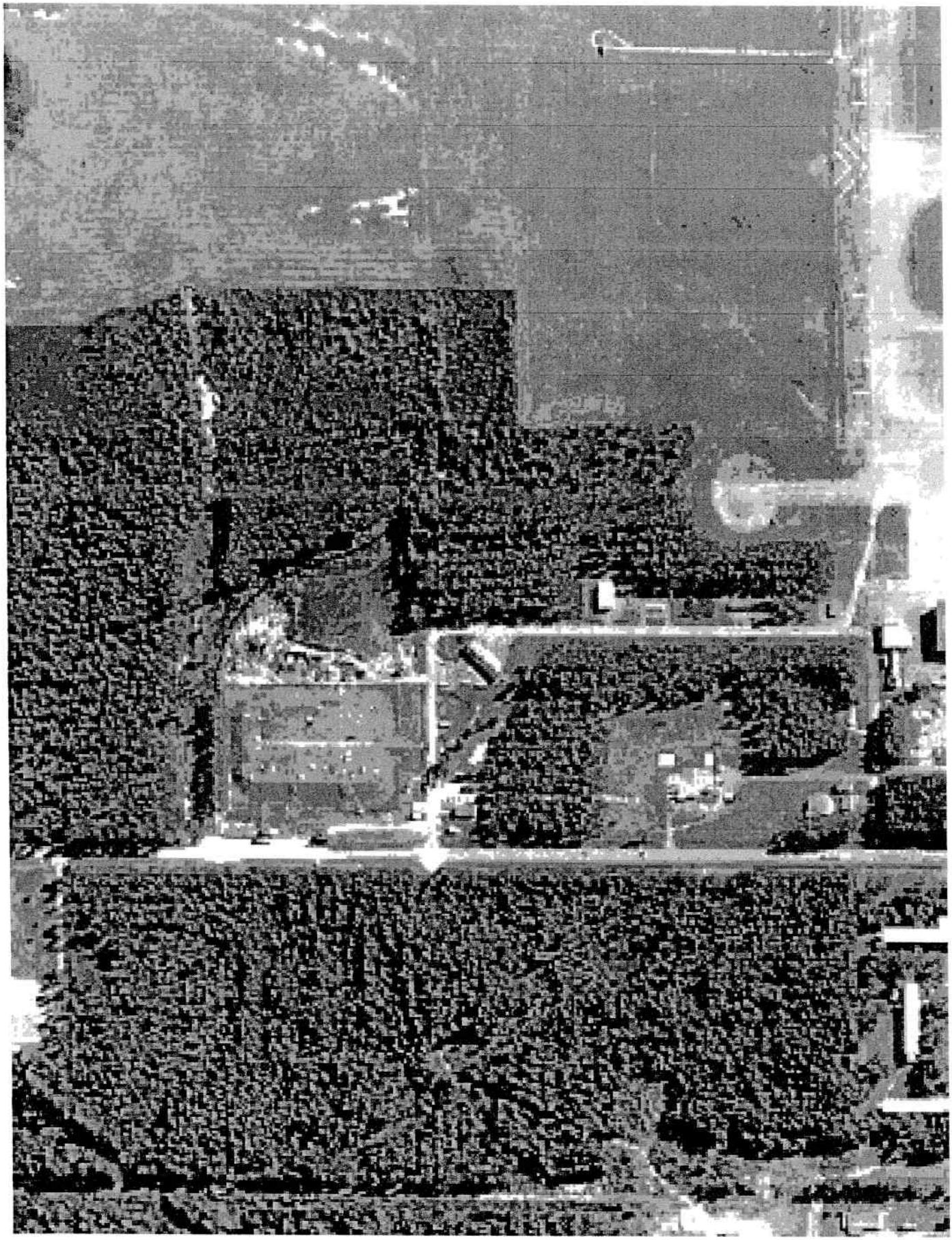
WALT OGBURN
11/12/2003

1 Inactive
2 ACTIVE
3 ACTIVE
4 ACTIVE
5 ACTIVE
6 INACTIVE
7 ACTIVE
8 INACTIVE
9 ACTIVE
10 ACTIVE
11 ACTIVE
12 INACTIVE



DRAWN BY MJJ	DATE 26Jun01	GOPHER TURTLE BURROWS SITE 49, FORMER SKEET RANGE NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 0039
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHEDULE-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE E-2 REV 0

P:\GIS\NAS_CecilField\Site 49_ActionMemo.apr 01May02 MJJ E-2 Layout



AGVIQ
ENVIRONMENTAL SERVICES
CH2M HILL
JOINT VENTURE II

April 14, 2004

Mr. Rick McCann
Florida Fish and Wildlife Conservation Commission
620 S. Meridian Street
Tallahassee, FL 32399-1600

Re: North Fuel Farm at Cecil Field

Dear Mr. McCann:

Our letter dated March 24, 2004 provided information about a remediation project at the North Fuel Farm (NFF), a contaminated site at Cecil Field, and requested an incidental take permit for one apparently-inactive gopher tortoise burrow (*Gopherus polyphemus*) at the site. During your site visit on April 13, 2004, you determined that no burrows at the NFF are active, and stated that the project will not require an incidental take permit. Therefore, we are withdrawing the permit application.

Thank you for your assistance in resolving this matter. Please call me at (904) 733-9119 if you need additional information to cancel the permit application.

Sincerely,

CH2M HILL

R. Walter Ogburn III

R. Walter Ogburn III, Ph.D.
Senior Environmental Scientist

cc: Joseph Colella/AGVIQ
Scott Hendershot/AGVIQ
Project File No. 283092

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Equal Opportunity Employer

DEPARTMENT OF PUBLIC WORKS
Engineering Division

April 16, 2004

CH2MHill
9428 Baymeadows Road, Suite 200
Jacksonville, FL 32256
Fax: (904) 733-9570

Attn.: Cheryl R. Robitzsch, P.E.

RE: Cecil Field North Fuel Farm
Final Commercial Plan Review
City Development Numbers 4963.31

Dear **Ms. Robitzsch**:

The above referenced plans are approved and ready for pickup in Room 101, City Hall Annex. Two (2) signed and sealed sets must be submitted with the building permit application (if applicable).

If you have any questions concerning this project, please contact David Brown at (904) 630-1049.

All correspondence with this office **must** include the City Development Number and be addressed to the Engineering Division, City Hall Annex, 220 East Bay Street, Room 101, Jacksonville, Florida 32202; ATTENTION: Mike Sands.

Sincerely,

for Mike Sands, Manager
Development Management Group

GMS:dlb

cc: Bio - Environmental w/ 1 set of plans
Landscape w/ 1 sets of plans

CITY OF JACKSONVILLE, FLORIDA
BUILDING INSPECTION DIVISION

SITE CLEARING – TREE REMOVAL PERMIT APPLICATION

(APPLICATION MUST BE TYPED OR PRINTED IN INK)

B 04 2181 0 .
Permit Number

R.E. NO.: DATE ISSUED: TYPE OF IMPROVEMENT: SITE X or TREE

OFFICIAL USE ONLY

HOUSE NUMBER 13371 STREET NAME Loop
TYPE Rd DIRECTION APT/UNIT ZONING PUD ZONING APPROVAL JM
ZONING NOTES: Site Clearing Only
INSP. AREA FINAL APPROVAL FEE $
NOTICE OF COMMENCEMENT REQUIRED? ☐ YES or ☐ NO

ADDRESS NUMBER 13371 STREET NAME SEE MAP ATTACHED FIG 1 - CHIMNEY HILL ZIP CODE
LOCATED BETWEEN AVIATION AV. STREET AND DEAD END STREET
LEGAL DESCRIPTION LOT NO.: BLOCK SUBDIVISION
(State portion of lot if less than full lot – Attach legal description per deed in duplicate if metes and bounds)
DO YOU WANT INSPECTION RESULT NOTIFICATIONS SENT TO YOUR E-MAIL ADDRESS? ☑ YES or ☐ NO

☐ CASH
☐ ESCROW
☐ EXEMPT

PROPERTY OWNER

COMPANY NAME JACKSONVILLE AIRPORT AUTHORITY
NAME DIANA STONE
TITLE FACILITIES MANAGER
ADDRESS 13365 AERONAUTICAL CIR
TELEPHONE NO.: 904-573-1604
FAX NO.: 904-779-9745
E-MAIL ADDRESS: dianast@jaxairports.org

FEE SIMPLE TITLEHOLDER (IF OTHER THAN OWNER)

NAME
ADDRESS

OWNER or AGENT
(If Agent, ~~Power of Attorney or~~ Agency Letter Required)

Signed: Date: 4-22-04

Before me this day of in the County of Duval, State of Florida, has personally appeared herein by himself / herself in applying for a permit to do their own work at the address described above, affirms that all statements and declarations herein are true and accurate.

Sharon Dawley
Notary Public at Large, State of Florida, County of Duval
My commission expires: 12/19/2007
Personally Known ✓
Produced Identification –

SHARON BEMBRY
Comm# DD0249420
Expires 12/19/2007
Bonded thru (800)432-4254
Florida Notary Assn., Inc

Application is hereby made to obtain a permit to do the work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work will be performed to meet the standards of all laws regulating construction in this jurisdiction. **I understand that a separate permit must be secured for additional site work other than clearing if an Approved 10 set is not used for this Application.**

OWNER'S AFFIDAVIT—I certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning. I will not occupy or use the referenced building, or any part thereof, until all inspections are finaled and prior to obtaining a certificate of occupancy or completion issued by the building official, as required by law.

IMPORTANT: APPLICANTS MUST COMPLETE ITEMS I THROUGH V

I. OWNERSHIP

A. Private (individual, ☐ corporation, nonprofit, institution)
B. Public (federal, state ☒ or local government)

II. Cost

- For site clearing, include site clearing costs only

Cost: $ $40,000

III. PROPOSED USE

RESIDENTIAL
A. Single Family ☐
B. Duplex ☐
C. Condominiums ☐
E. Garage ☐
F. Carport ☐
G. Other ☐
H. 3 or 4 Families ☐
I. Apartments ☐
J. Mobile Home ☐

NON-RESIDENTIAL
A. Amusement, Recreational ☐
B. Church, Other Religious ☐
C. Industrial ☐
D. Parking Garage ☐
E. Service Station, Repair Garage ☐
F. Hospital, Institutional ☐
G. Office, Bank, Professional ☐
H. Utility, Towers, Tanks ☐
I. School, Library, Other Educ. ☐
J. Stores, Mercantile ☐
L. Other remediation ☒
M. Convert Residence to Business ☐
N. Restaurant ☐
O. Hotel, Motel, Dormitory ☐

IV. DIMENSIONS

Total Land Area Sq. Ft.
~~474,240~~ 43,560 Approximately

V. TOTAL IMPERVIOUS AREA

0. Sq. Ft.

OFFICIAL USE ONLY

PERMIT REQUIREMENTS | **REQUIRED INSPECTIONS:** ( ) 3 ( ) 17 ( ) 9

1. ( ) City Development Number _____.
2. ( ) Call 630-2973 for Tree Barricade inspection prior to commencement of site work.
3. ( ) Required protected tree replacement is ( ) caliper inches of Live Oak and ( ) caliper inches of other.
4. ( ) Tree Fund contribution required prior to issuance of permit $ _____.
5. ( ) Call 630-3611 for NPDES inspection prior to commencement of site work.
6. _____

APPROVAL NOTES

PUBLIC WORKS
NO OBJECTIONS
Office of the City Engineer
BFE ~~—~~ FZ ~~—~~ No ~~—~~
Date 4/23/04 Signed

DOWNTOWN DEVELOPMENT AUTHORITY

PLANNING

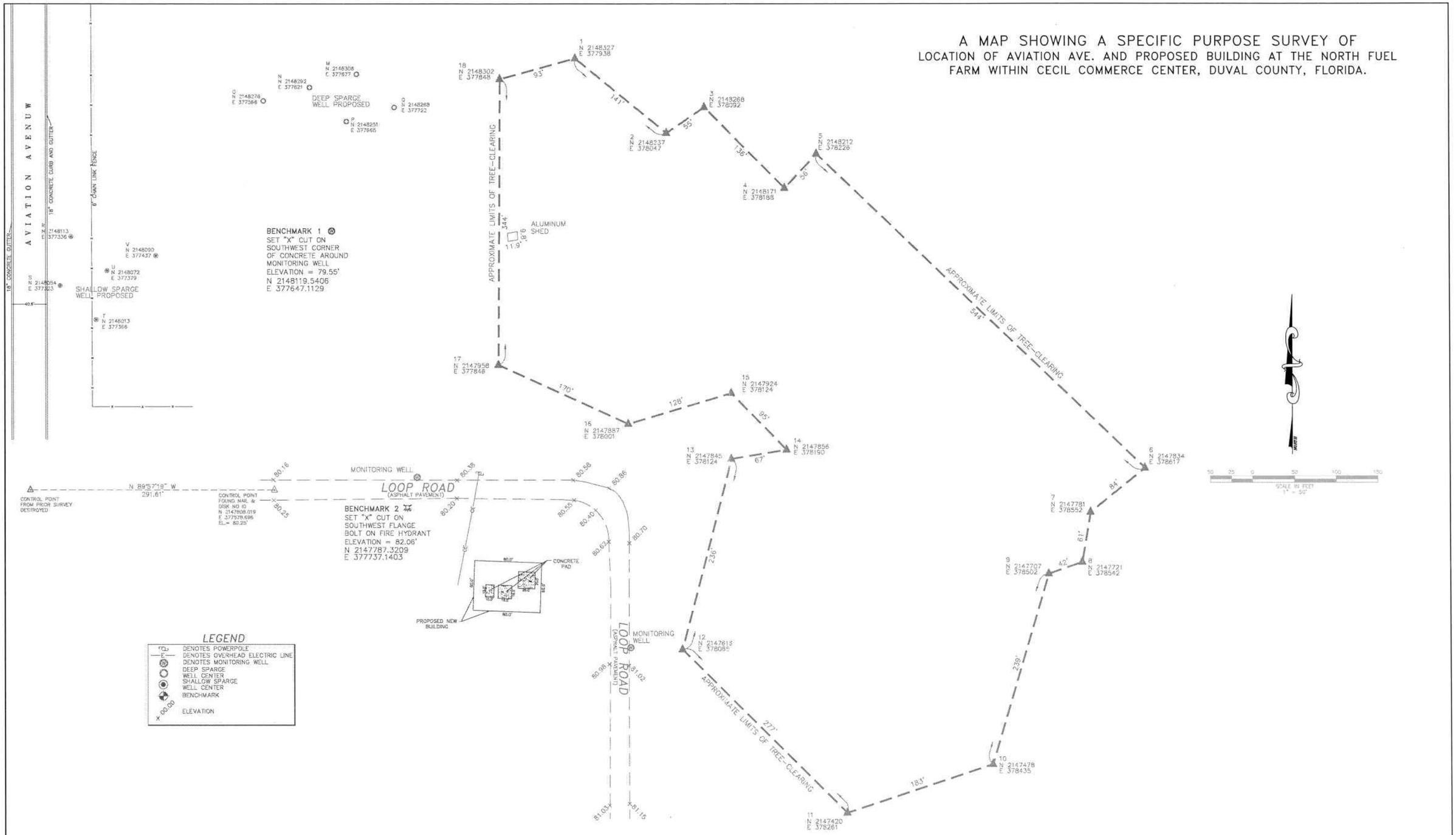
CONCURRENCY MANAGEMENT
Deminimis _____ By _____ Date _____
Fair Share _____ By _____ Date _____
Override
Exempt _____ By _____ Date _____
VPAC / CRC NO.: _____

Revised 01/23/04

Appendix C

Site Surveys

A MAP SHOWING A SPECIFIC PURPOSE SURVEY OF
LOCATION OF AVIATION AVE. AND PROPOSED BUILDING AT THE NORTH FUEL FARM WITHIN CECIL COMMERCE CENTER, DUVAL COUNTY, FLORIDA.



LEGEND

- DENOTES POWERPOLE
- E — DENOTES OVERHEAD ELECTRIC LINE
- DENOTES MONITORING WELL
- DEEP SPARGE WELL CENTER
- SHALLOW SPARGE WELL CENTER
- BENCHMARK
- 00.00 ELEVATION

NOTES:
1.) HORIZONTAL POSITIONS SHOWN HEREON BASED ON GLOBAL POSITIONING SYSTEM PROJECTED FROM CONTROL MONUMENT "STATION 159 1990" AS FURNISHED BY THE NATIONAL GEODETIC SURVEY NAD 83/90 DATUM.
2.) ELEVATIONS SHOWN HEREON BASED ON NATIONAL GEODETIC VERTICAL DATUM 1929 AS FURNISHED BY THE CITY OF JACKSONVILLE.
3.) THE SPECIFIC PURPOSE OF THIS SURVEY IS TO SHOW LIMITS OF CLEARING AND PROPOSED WELL WITHIN THE NORTH FUEL FARM AREA SITE, TRUCK STAND SITE THAT HAD BEEN EXCAVATED AS DIRECTED BY THE CLIENT.
4.) SET WOOD STAKE AT CORNERS OF LIMITS OF TREE CLEARING AND AT PROPOSED WELL LOCATION.

X REF = C-00-289
X REF = D-04-190

W.O. NO.: D-05-017

DONALD M. JOHNSON JR.
FLORIDA REGISTERED LAND SURVEYOR NO. 5613
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

LDB BRADLEY LAND SURVEYORS
5773 NORMANDY BOULEVARD, JACKSONVILLE, FLORIDA 32205
PHONE (904) 786-6400 FAX (904) 786-1479
LICENSED BUSINESS No. 6888

W.O. NO.: 05-017	SURVEY DATE: 1-12-2005	DRAFTED BY: J. C. PENA
CHECKED BY: J. WEINERT	CAD FILE: 05017.DWG	FB 550 PGS 21 AND 22

Appendix D

Site Photographs

Field Survey

Field Survey

Field Office

Protected Tree Barrier

Brush Clearing

Tree Falling

Tree Trimming and sizing

Tree Trimming and sizing

Silt Fence Installation

Clearing and Grubing

Clearing and Grubing

Clearing and Grubing

Pulp wood Transport

Root Raking

Stump & Brush Pile

Stump & Brush Grinding

Stump & Brush Grinding

ROTASONIC DRILL RIGGS

AS/BS ROTASONIC WELL DRILLING

CORE SAMPLES

LITHOLOGIC CORE SAMPLES

AS/BS DEVELOPMENT WATER

SVE Lay out

SVE Lay out

SVE TRENCHING

PLACEMENT OF SVE PIPE

SVE Installation

SVE Installation

SVE Installation

SVE PIPE INSTALLATION

SVE TRANSITION BETWEEN 4” SOCK AND 2” PVC

0.5% SLOPE ON MOISTURE COLLECTION SUMP

COMPLETED SUMP INSTALLATION

CONNECTION FROM 4” SOCK TO 2” PVC INTO SUMP

AS/BS TRENCHING

AS/BS INSTALLATION

AS/BS INSTALLATION

AS/BS TRANSITION FITTING

PREPARATION FOR TRANSITION FITTING

CLEANING WELL

MEASURING FITTING

PRIMING WELL ATTACHMENT

GLUING THE FITTING

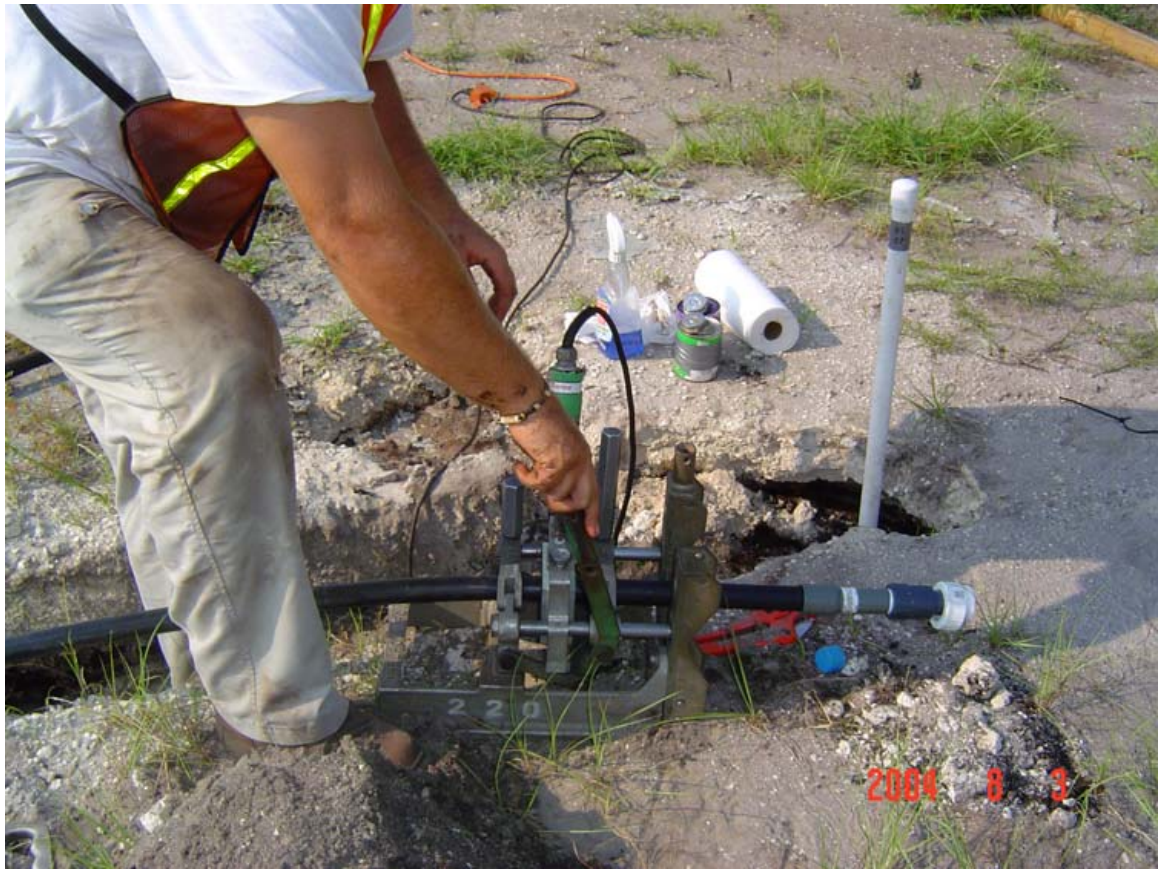
ATTACHING UNION

PREPARING PIPE FOR THERMAL WELDING

TRIMING FOR FLUSH CONNECTION

APPLYING THERMAL HEAT TO 1” PIPE ENDS

APPLYING PRESSURE UNTILL PROPER BEADING



APLYING SLIGHT PRESURE UNTIL 1” PIPES ARE FUSED

COMPLETION OF TRUNK LINE #1

MARKING MEASUREMENTS

LEVELING THE PAD

BRINGING PAD TO GRADE

PREPARING FORM

SECURING REBARB WITH TIES

COMPLETED FORM FOR SVE PAD

CONCRETE POUR

CONCRETE POUR FOR SPARGE SYSTEM

CONCRETE FINISH WORK FOR CONTROL ROOM PAD

CONCRETE FINISH WORK

DRILLING FOR CONCRETE PILLAR INSTALLATION

SETTING AND LEVELING SONATUBES

PREPARATION FOR WELL BOX INSTALLATION

BASE WITH LIME ROCK FOR COMPACTION

WELL HEAD COVER PLACED AND LEVELED

LIME ROCK COMPACTED IN 2" LIFTS

PREPARING FOR INSTALLATION OF SPARGE MANIFOLDS

PLACEMENT OF MANIFOLDS

INSTALLING SPARGE MANIFOLDS

SQUARING SPARGE MANIFOLDS

ANCHORING SPARGE MANIFOLDS

1" HDPE PIPE DOUBLE LABELLED FOR ACCURACY

1" HDPE PIPE BEING RAN FROM TRUNKLINE #1 TO MANIFOLD #1

1" HDPE LINE TO MANIFOLDS

1" PIPE BEING THREADED FOR ATTACHMENT TO SYSTEM GAUGES

1” PIPE ATTACHED TO SYSTEM GAUGES

1" HDPE PIPE BUTT WELDED TO SYSTEM GAUGES ON MANIFOLD #1

1" HDPE PIPE BEING BUTT WELDED AT TRUNK LINE #1

MANIFOLDS # 1,2 AND 3 COMPLETED

1" HDPE PIPE FROM TRUNK LINE # 2 TO MANIFOLD

KAESER AIR COMPRESSOR FOR THE SPARGE SYSTEM

CONTROL ROOM

CARBON VESSELS SQUARED AND LEVELED

INSTALLATION PREPARATION FOR SPARGE AIR COMPRESSOR RECEIVER TANK

VERTICAL RECEIVER TANK BEING CONNECTED TO THE KAESER COMPRESSOR.

INSTALLED OIL REMOVAL FILTER

SVE WASTE COLLECTION TANK

COMPLETION OF TRUNKLINE # 2

COMPLETED 1” HDPE PIPE WELDING TO MANIFOLD 1-6

SVE SYSTEM GAUGES CONNECTED TO COMPRESSOR

CONNECTING 2” HDPE PIPE TO SVE COMPRESSOR MANIFOLD.

WELDING 2” HDPE PIPE AT TRUNK LINE # 1.

2” HDPE PIPE CONNECTED TO SYSTEM GAUGES ON SVE PAD

2" HDPE PIPE WELDED AT TRUNKLINE # 1

COMPLETED 2” HDPE PIPE INSTALLATION

SITE RESTORATION

CONNECTION OF CABLES TO ELECTRICAL BOX

INSTALLATION OF 4” PIPE DROPS TO VERTICAL RECEIVING TANK AND MANIFOLDS

JEA AND C&C ELECTRIC INSTALLING ELECTRICAL CABLES TO CONDUITS

ELECTRICAL CABLE INSTALLED TO TRANSFORMER

ELECTRICAL CABLE INSTALLED TO PRIMARY METER DISCONECT

GROUND POINT TEST WELL

INSTALLING CABLE THROUGH THE CONDUIT TO THE CONTROL ROOM TRANSFORMER

WIRING OF THE CONTROL ROOM TRANSFORMER

SOLINOID JUNCTION BOX INSTALLATION

ELECTRICAL CONDUIT LEADING TO THE SOLINOID JUNCTION BOX

JUNCTION BOXES MOUNTED TO MANIFOLDS

Appendix E

Well Completion Diagrams

PROJECT NUMBER	WELL NUMBER		
283092	AS-01	SHEET 1	OF 1

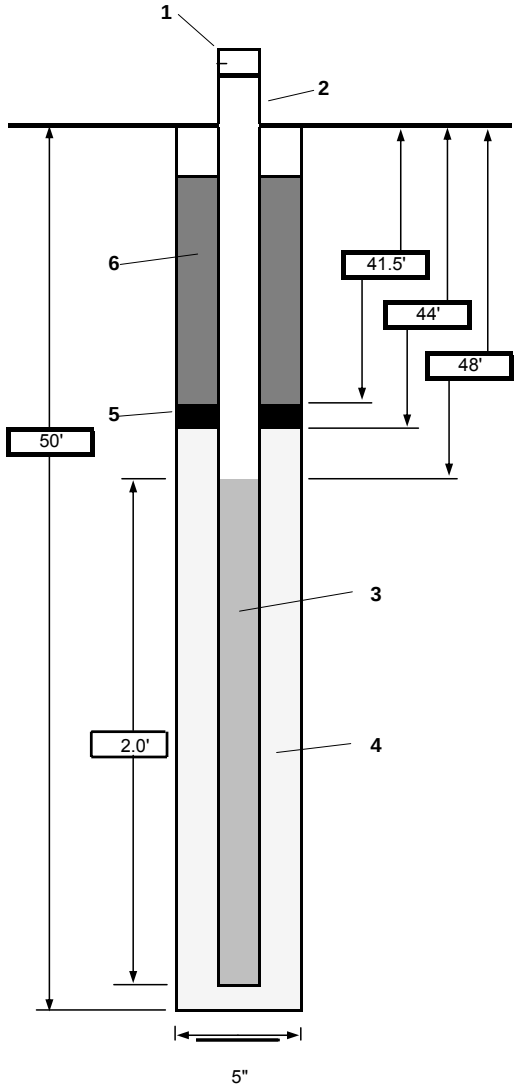
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/22/2004 — END: 6/22/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-02	SHEET 1 OF 1

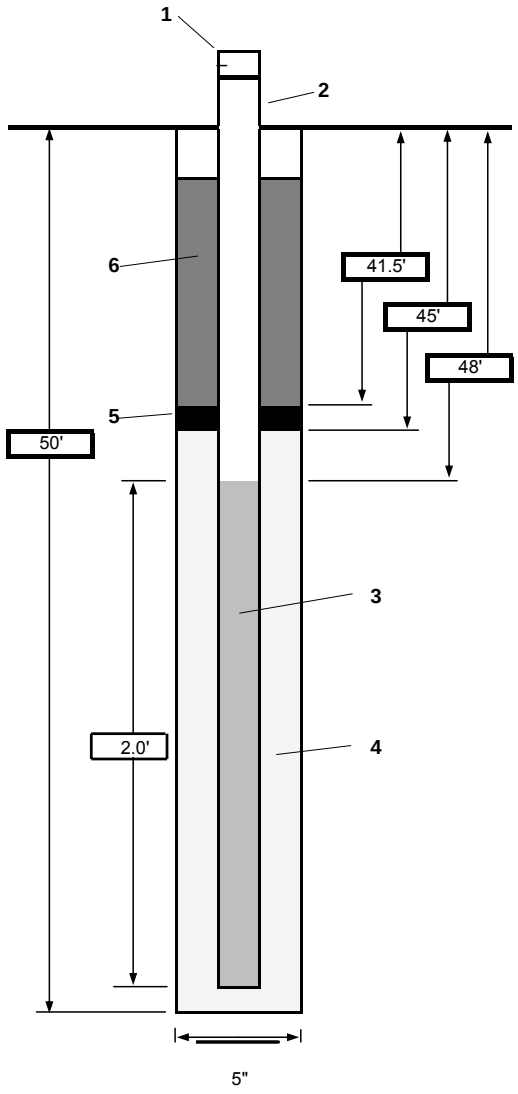
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 06/22/04 END: 06/22/04 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-03	SHEET 1	OF 1

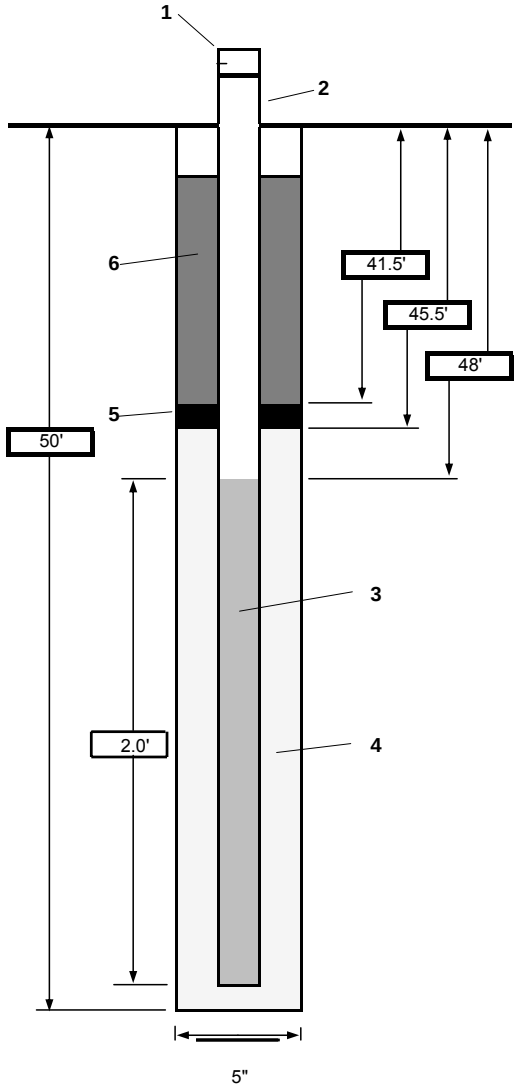
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/25/04 — END: 06/25/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-04	SHEET 1	OF 1

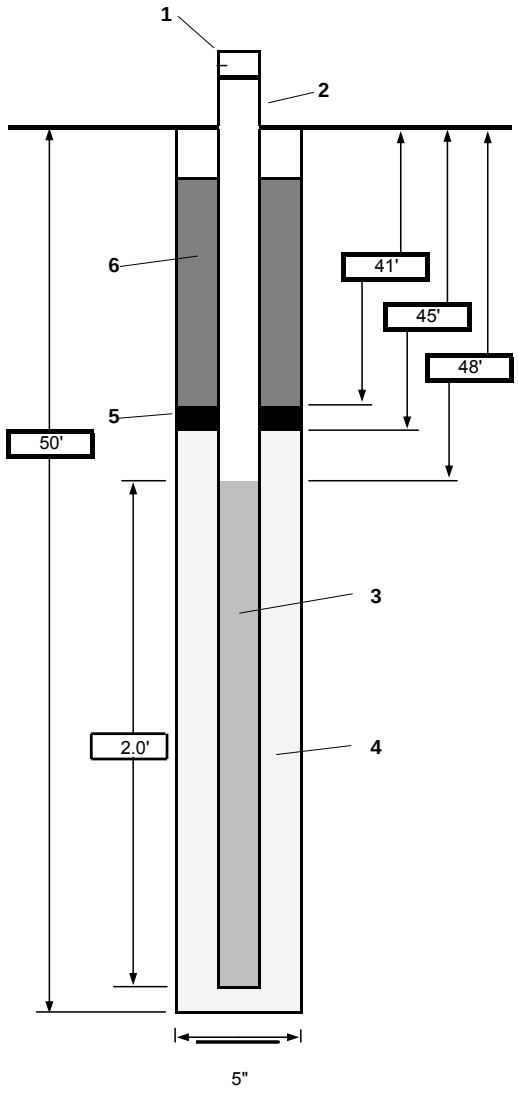
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/26/04 — END: 06/26/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-05	SHEET 1	OF 1

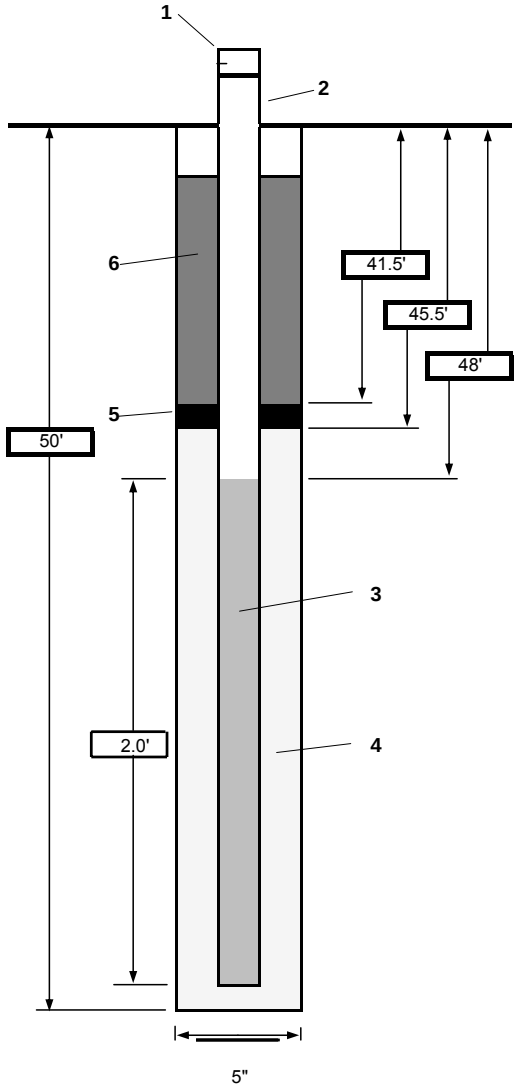
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/22/04 — END: 06/22/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-06	SHEET 1	OF 1

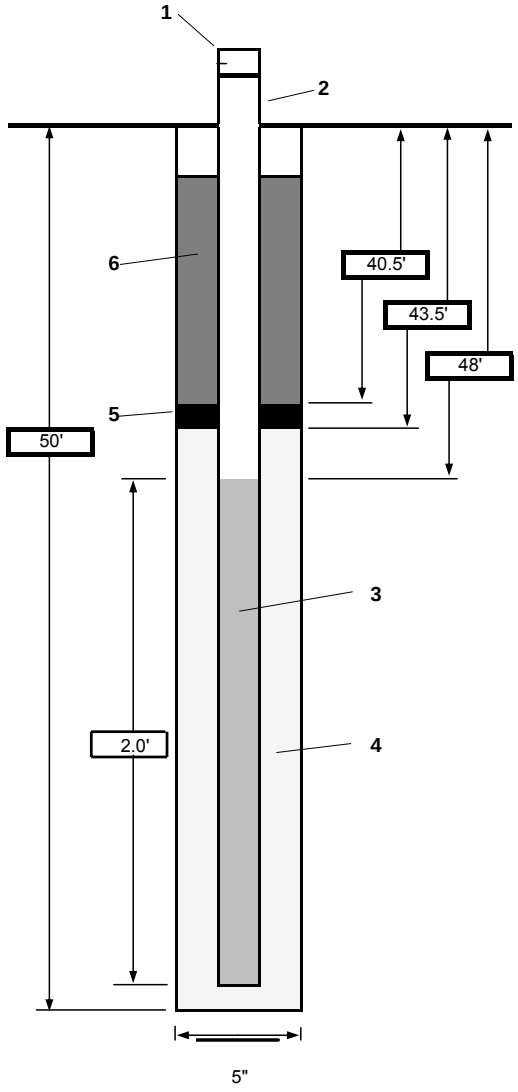
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/22/04 — END: 06/22/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-07	SHEET 1	OF 1

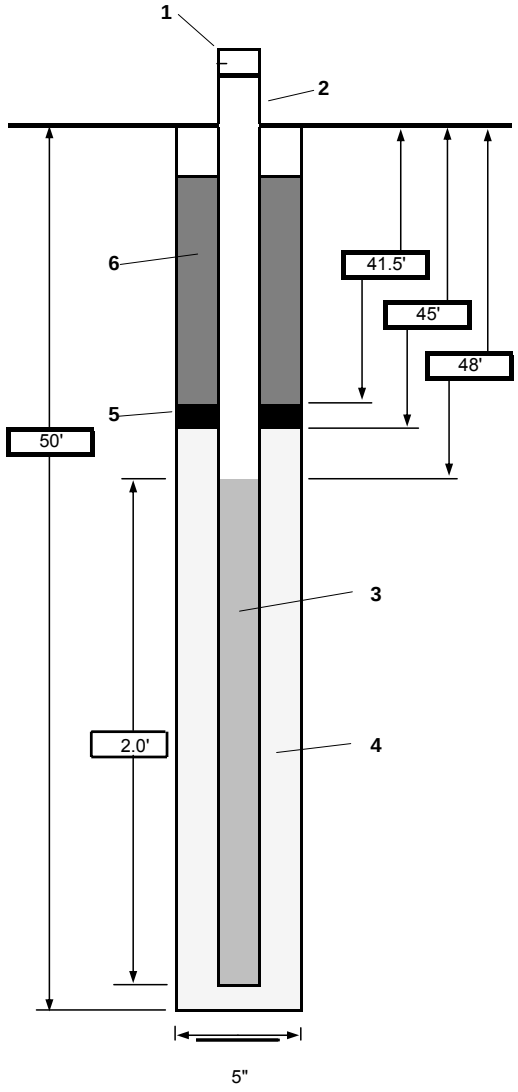
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/25/04 — END: 06/25/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-08	SHEET 1 OF 1

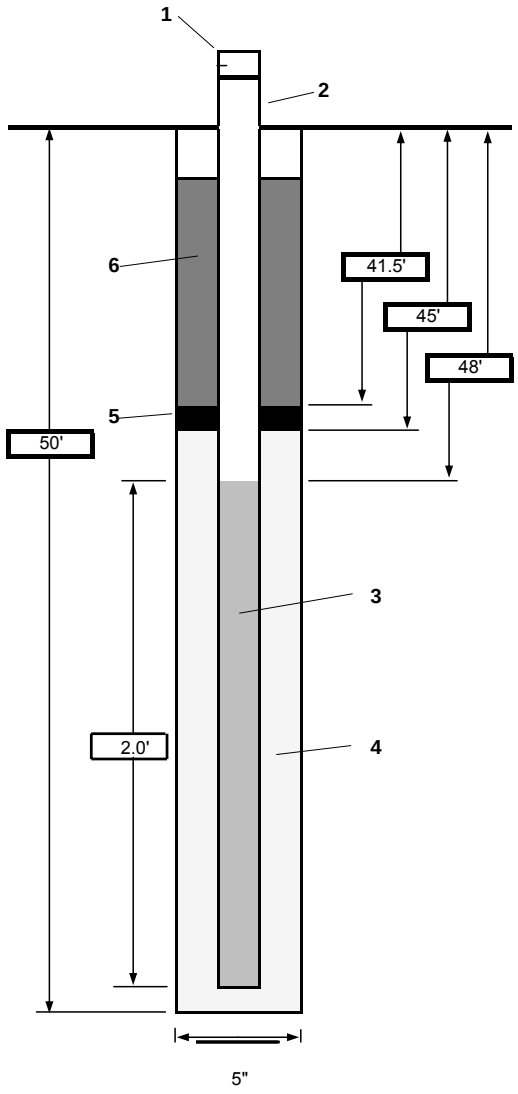
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 06/26/04 END: 06/26/04 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-09	SHEET 1	OF 1

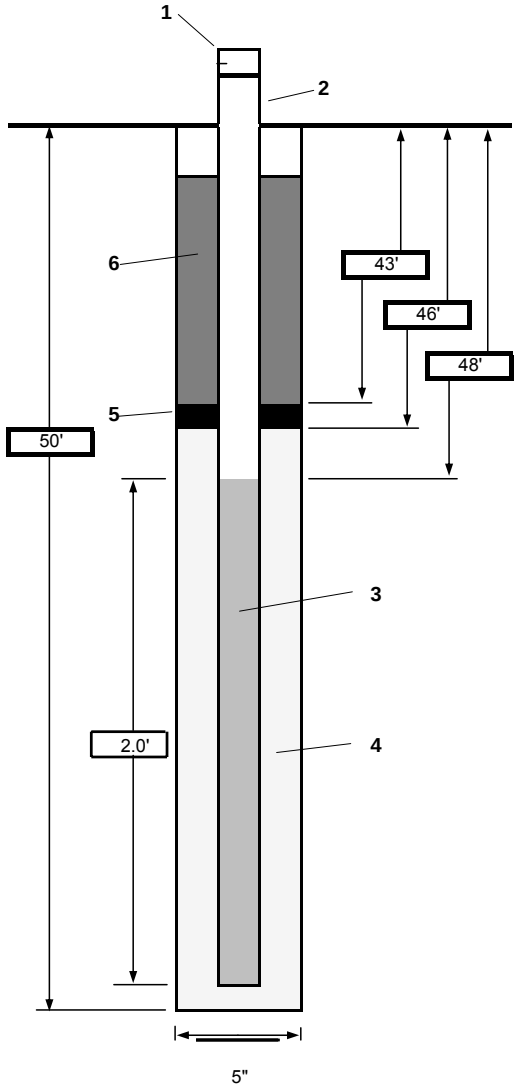
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/29/04 — END: 06/29/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-10	SHEET 1	OF 1

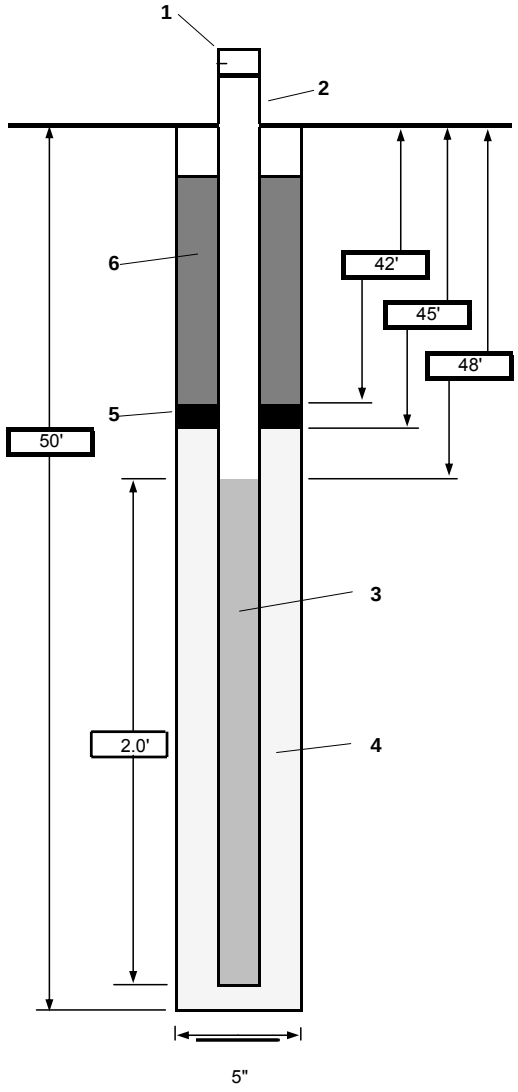
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/22/04 — END: 06/22/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-11	SHEET 1 OF 1

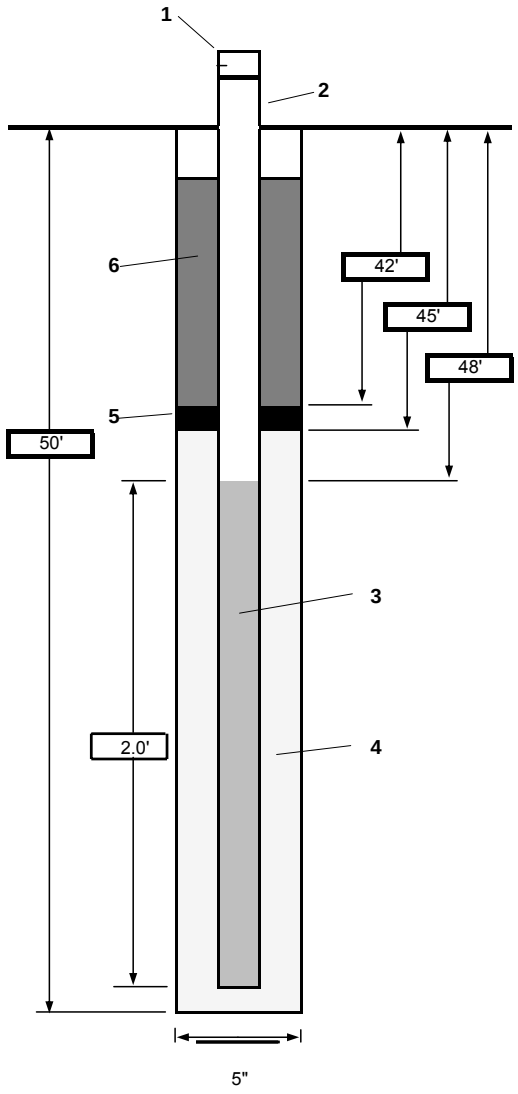
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 06/23/04 END: 06/23/04 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-12	SHEET 1	OF 1

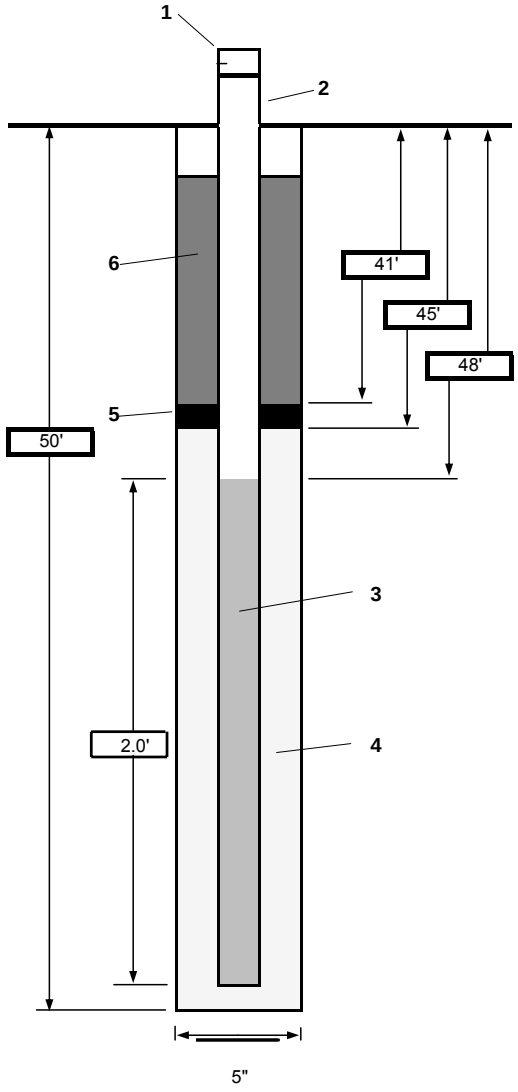
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/25/04 — END: 06/25/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-13	SHEET 1 OF 1

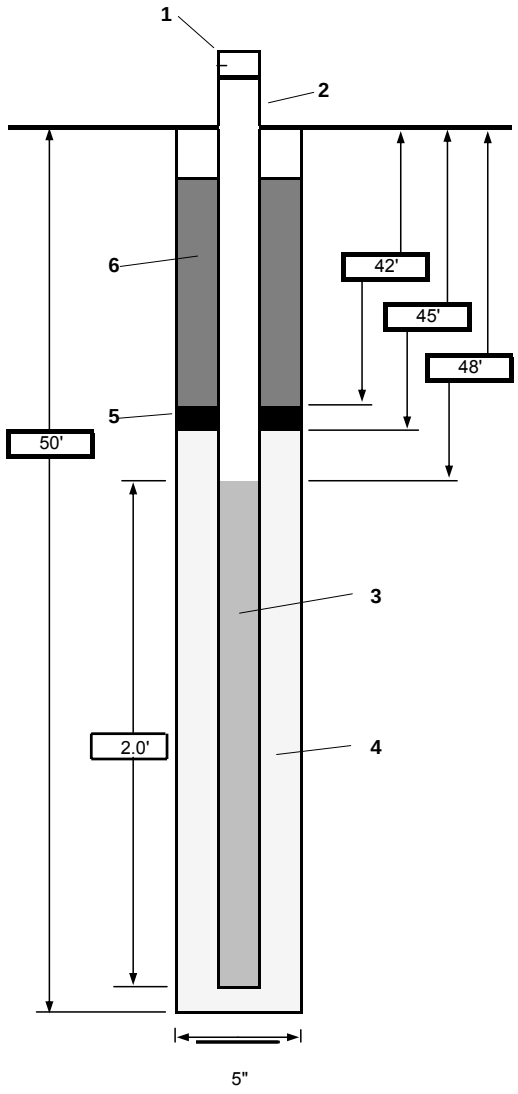
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 06/26/04 END: 06/26/04 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-14	SHEET 1	OF 1

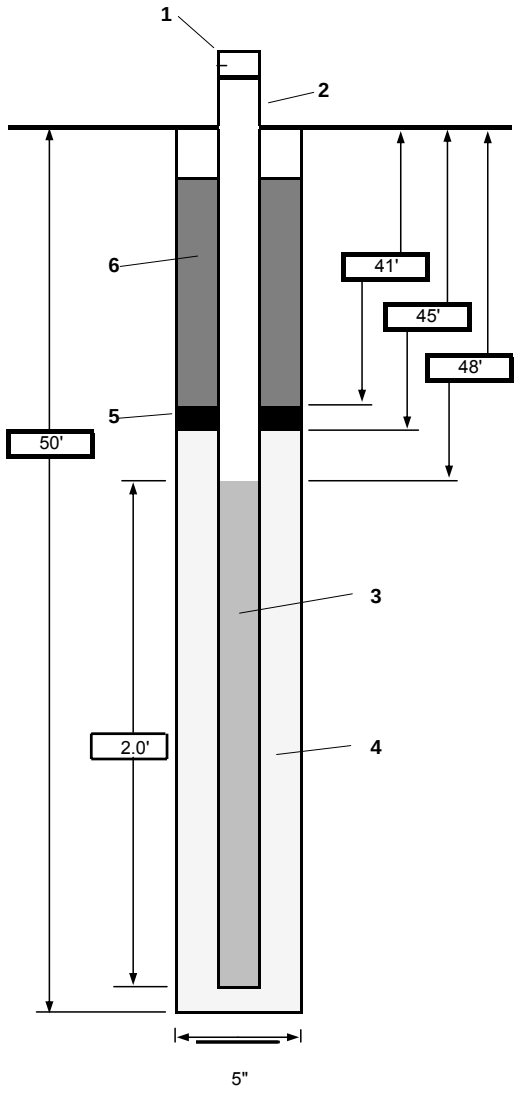
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/29/04 — END: 06/29/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-15	SHEET 1 OF 1

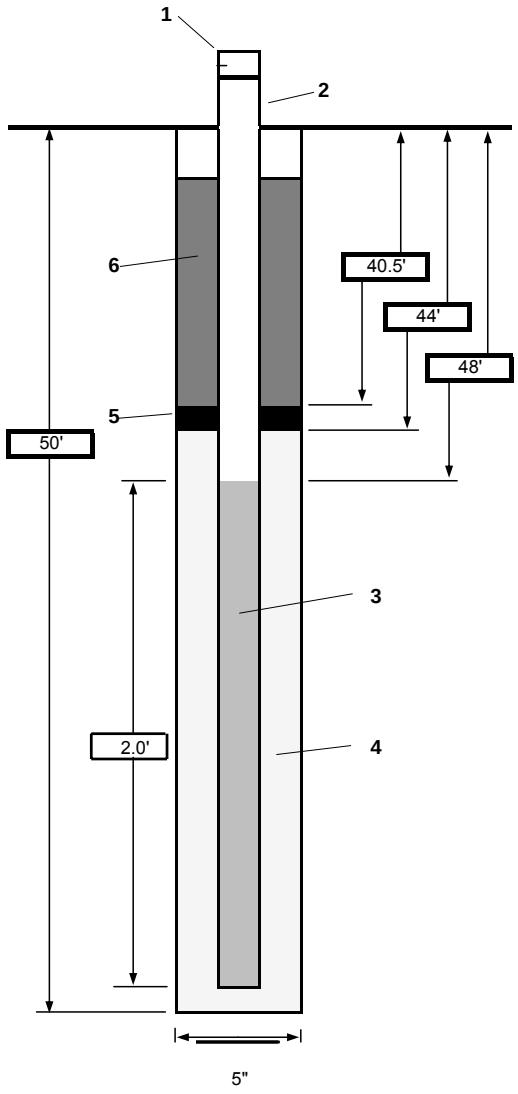
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 07/08/04 END: 07/08/04 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-16	SHEET 1	OF 1

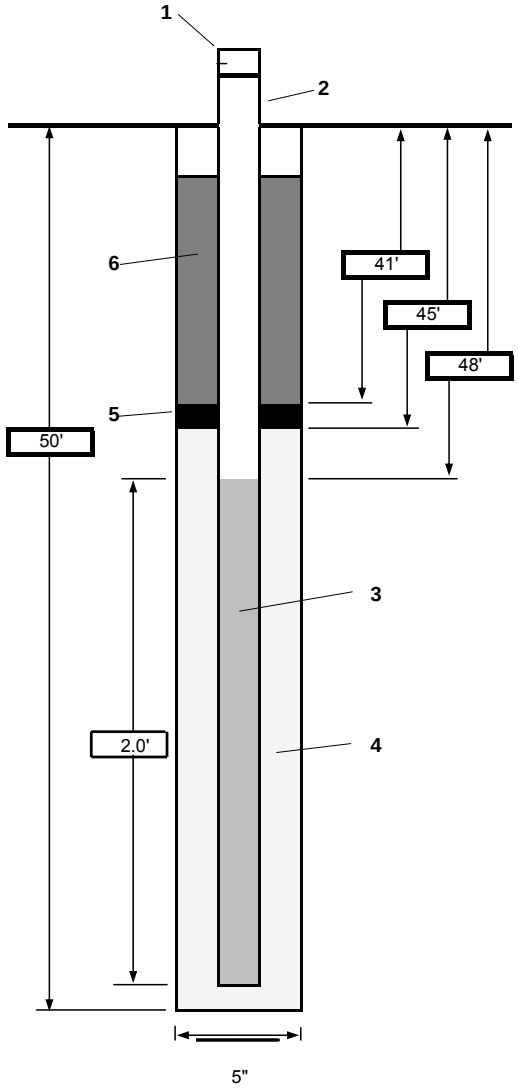
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/23/04 — END: 06/23/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-17	SHEET 1	OF 1

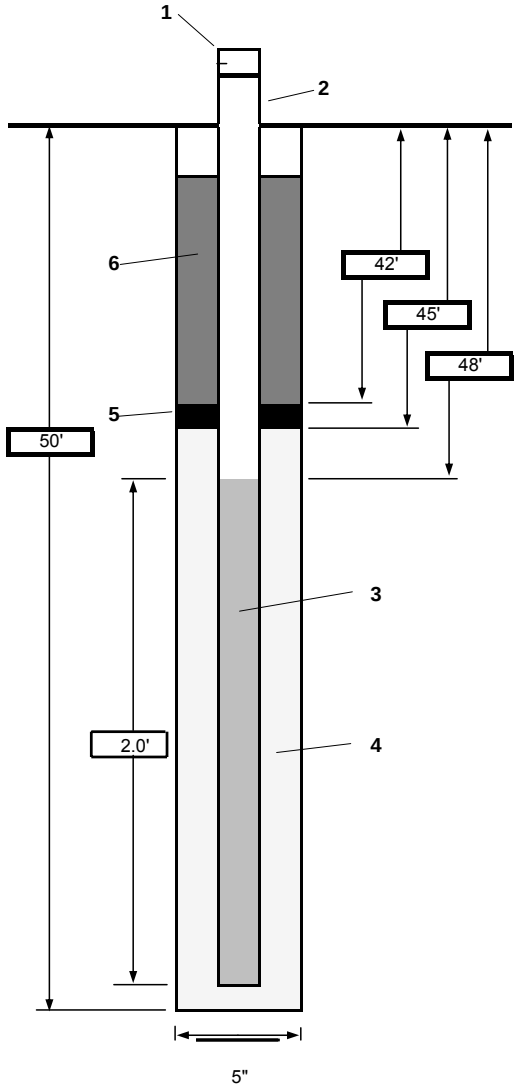
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/23/04 — END: 06/23/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-18	SHEET 1	OF 1

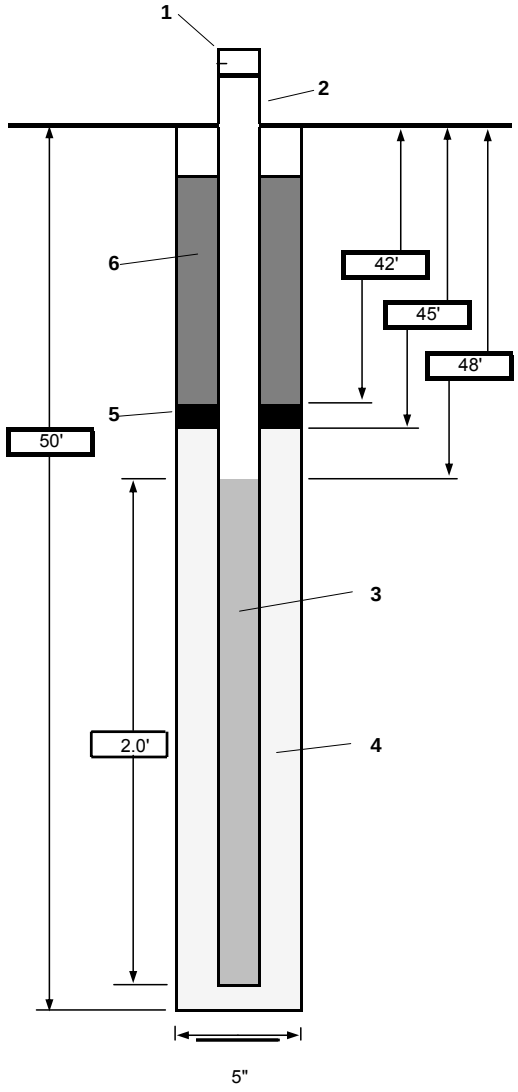
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/25/04 — END: 06/25/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-19	SHEET 1	OF 1

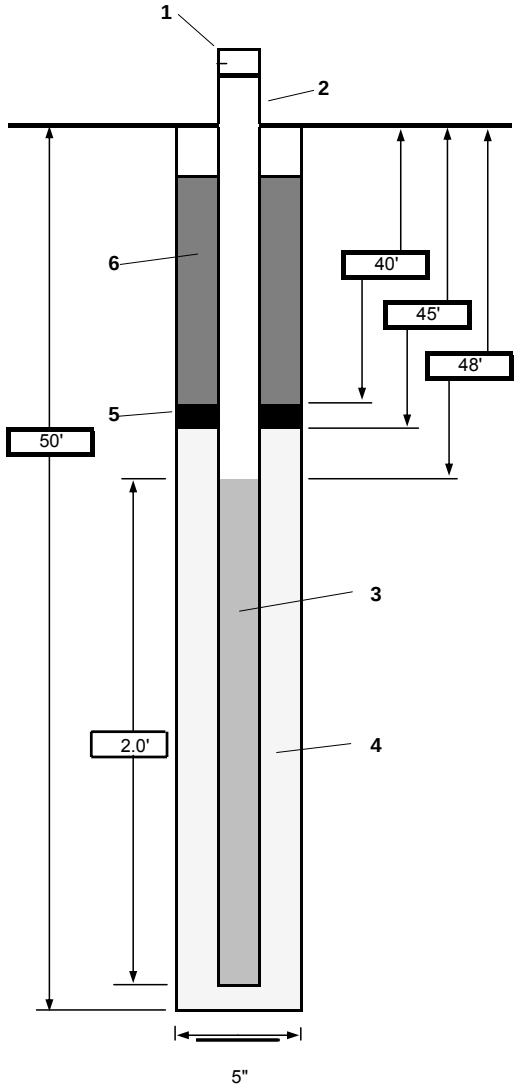
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/26/04 — END: 06/26/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-20	SHEET 1 OF 1

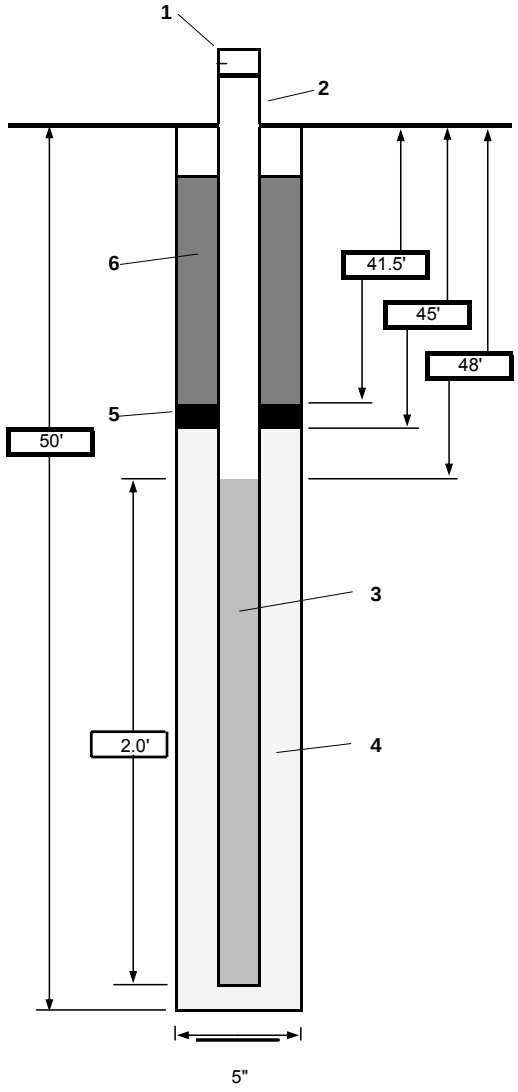
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/29/04 — END: 06/29/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-21	SHEET 1 OF 1

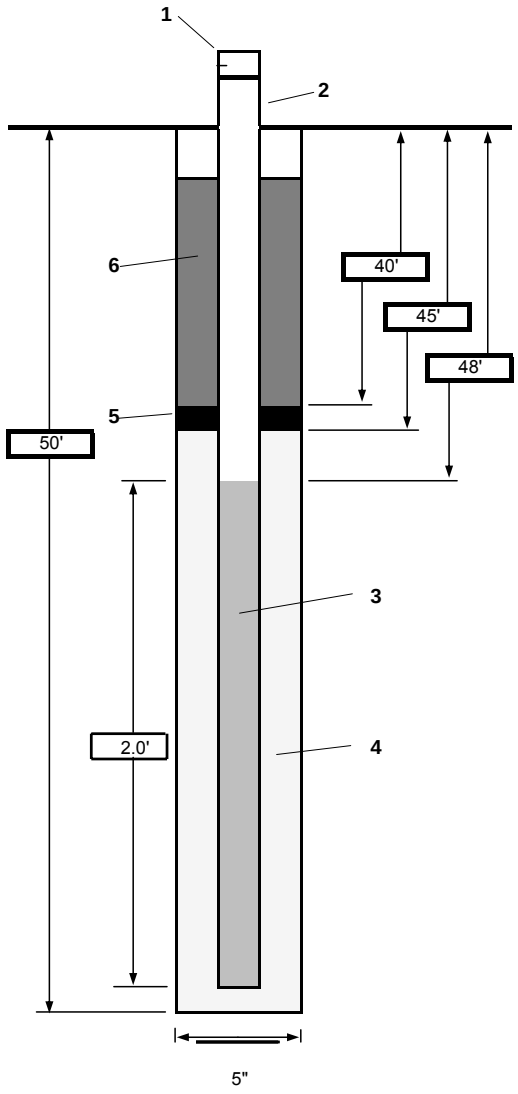
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 07/07/04 END: 07/07/04 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-22	SHEET 1	OF 1

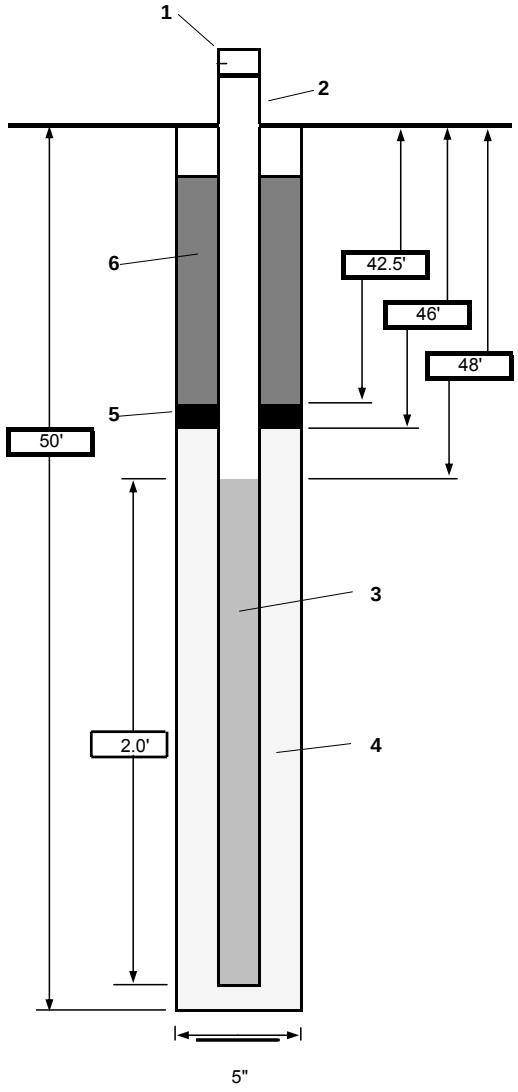
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 07/08/04 — END: 07/08/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-23	SHEET 1	OF 1

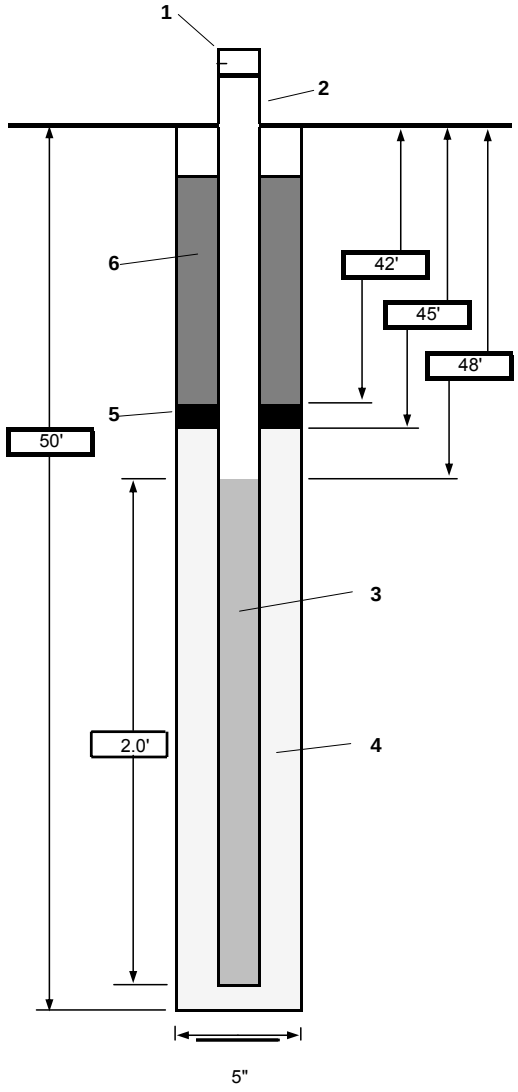
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/23/04 — END: 06/23/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-24	SHEET 1	OF 1

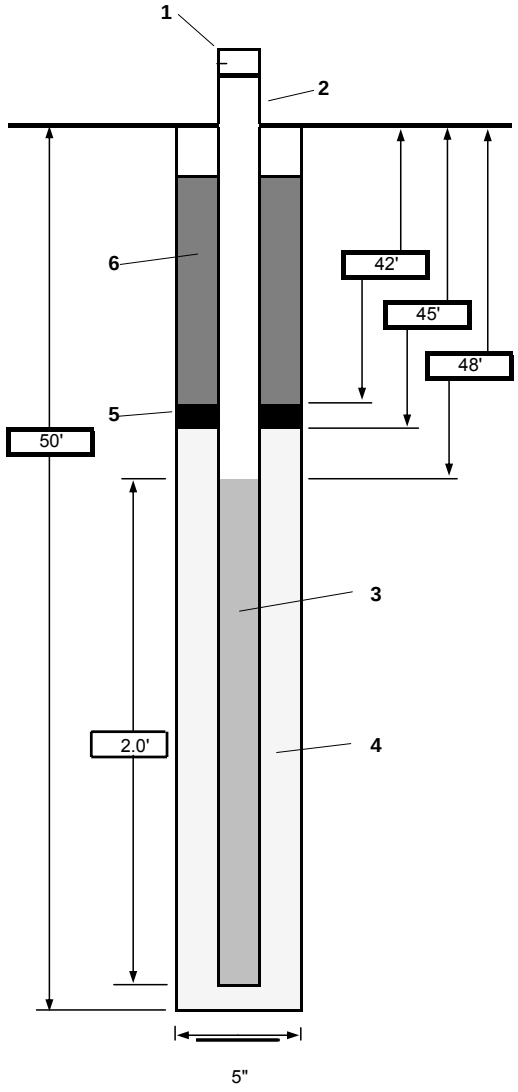
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 06/25/04 — END: 06/25/04 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-25	SHEET 1	OF 1

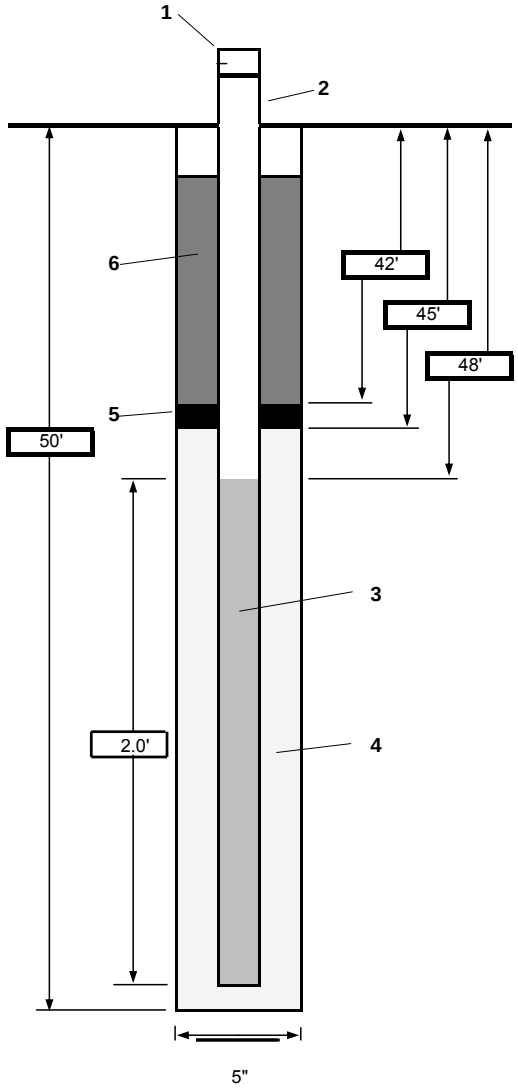
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/22/2004 — END: 6/22/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-26	SHEET 1	OF 1

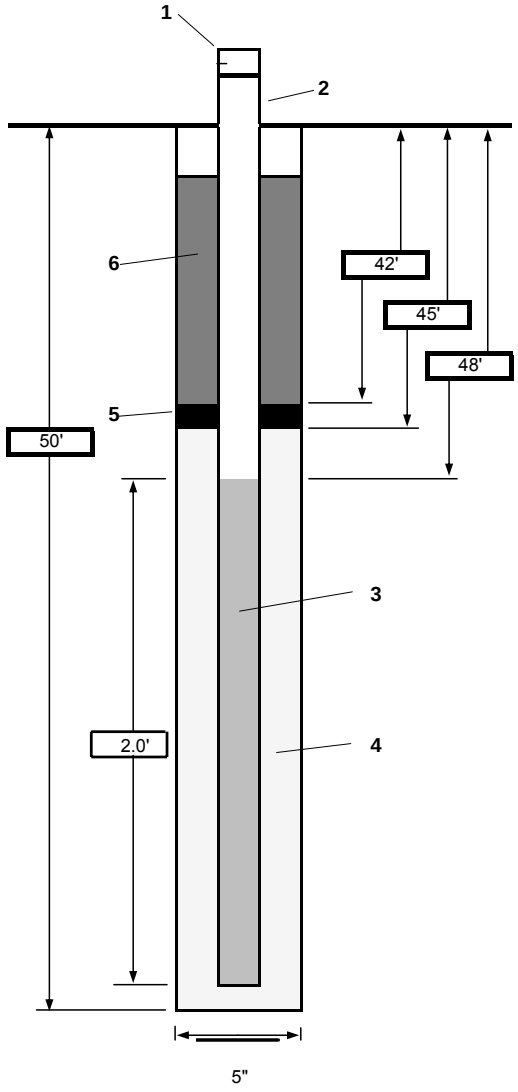
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/29/2004 — END: 6/29/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-27	SHEET 1	OF 1

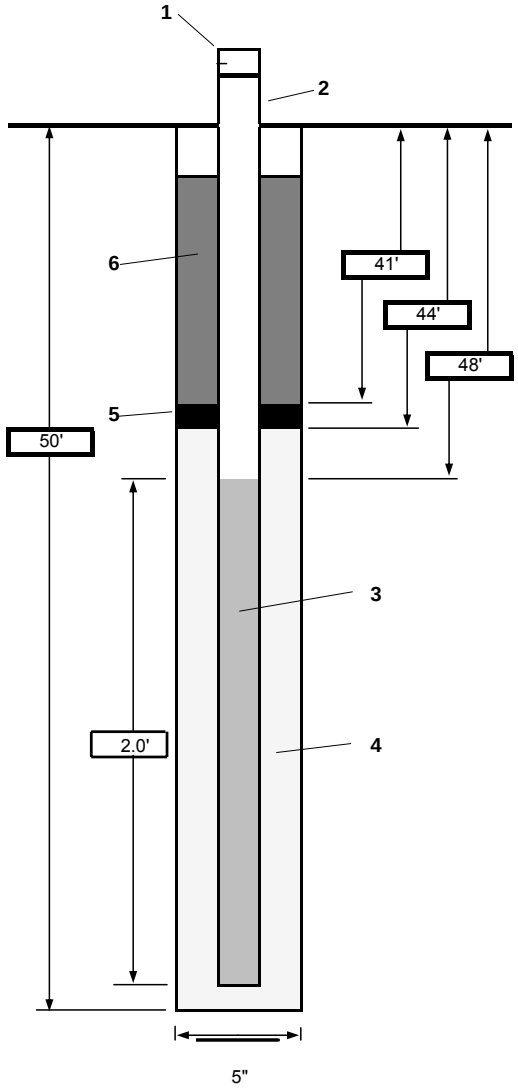
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 7/7/2004 — END: 7/7/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-28	SHEET 1	OF 1

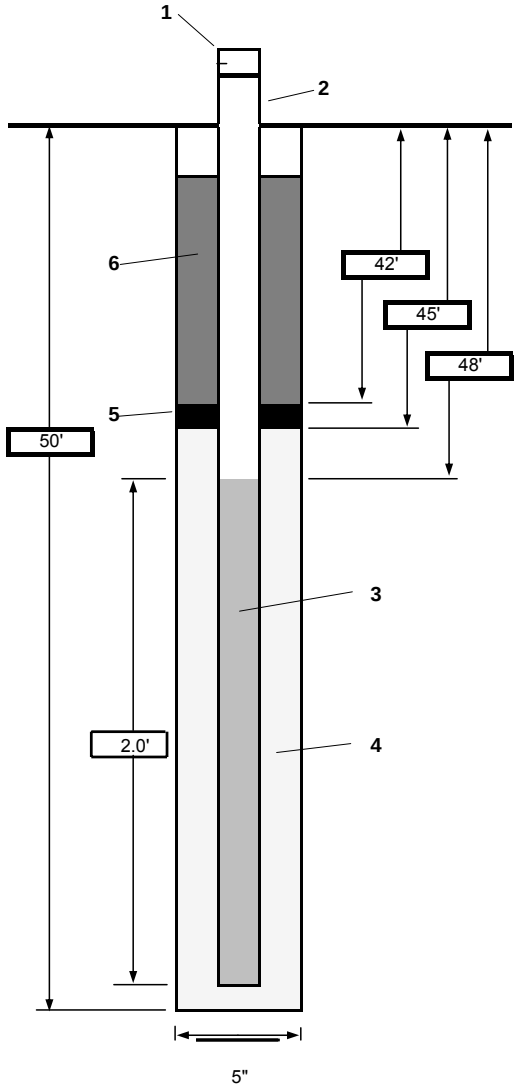
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 7/10/2004 — END: 7/10/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-29	SHEET 1	OF 1

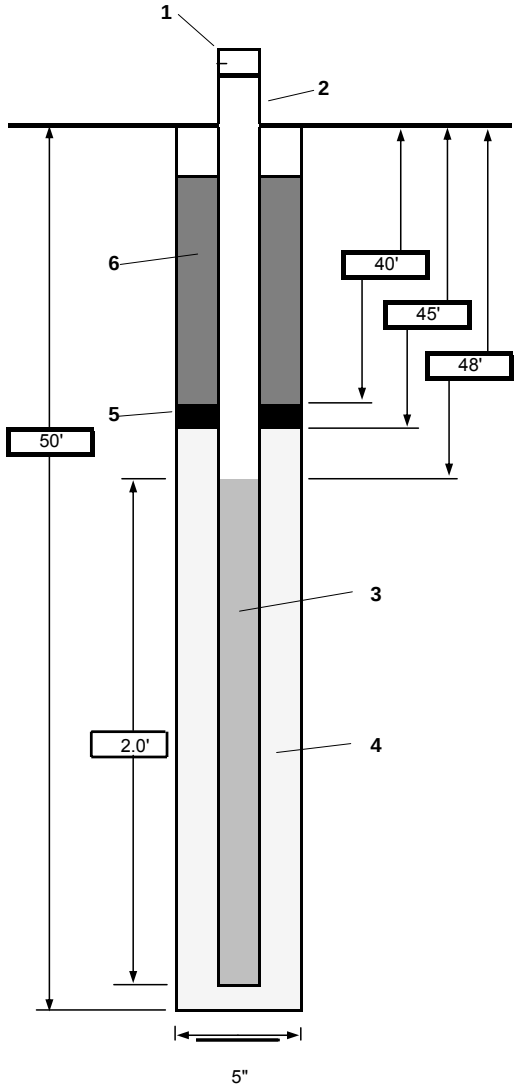
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-30	SHEET 1	OF 1

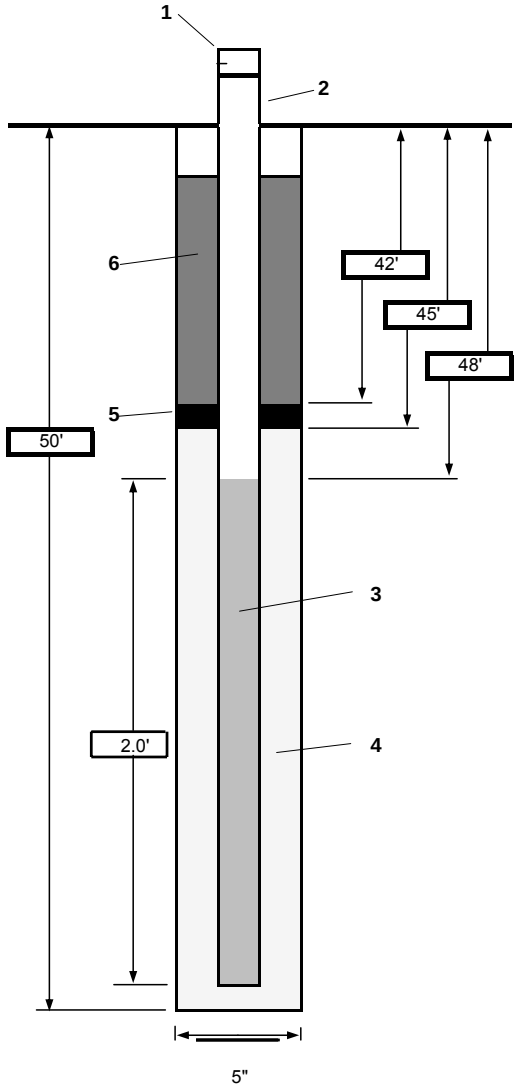
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-31	SHEET 1 OF 1

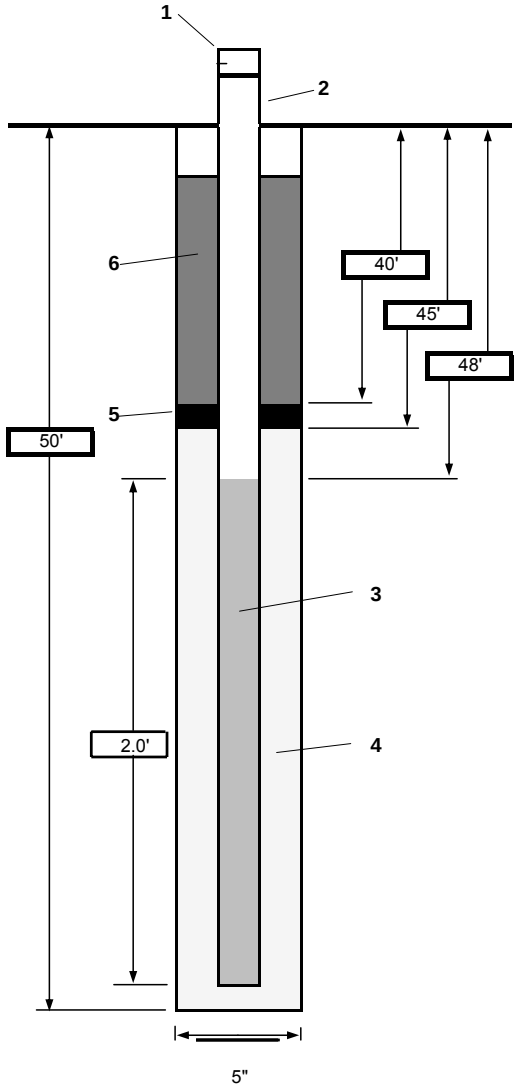
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/26/2004 — END: 6/26/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-32	SHEET 1	OF 1

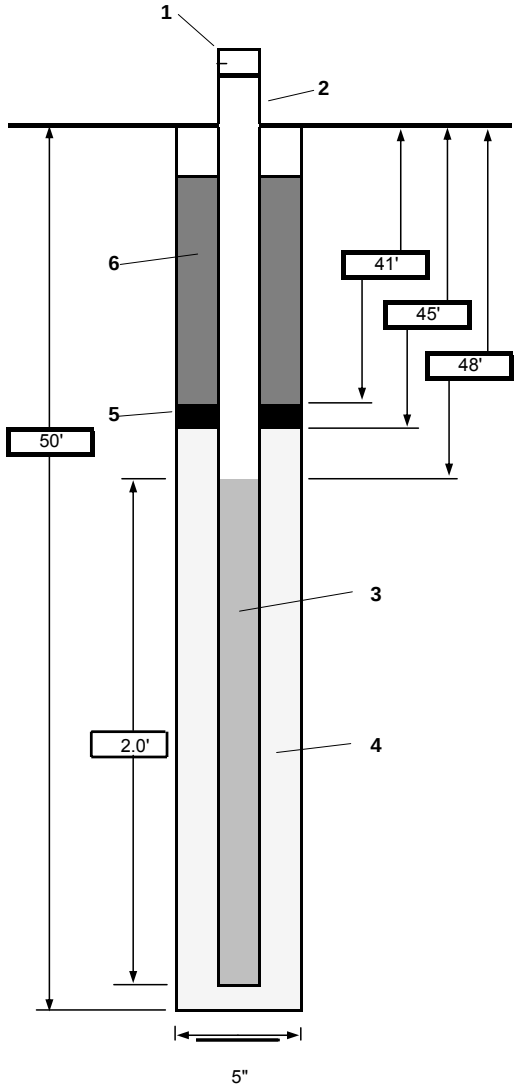
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/28/2004 — END: 6/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-33	SHEET 1	OF 1

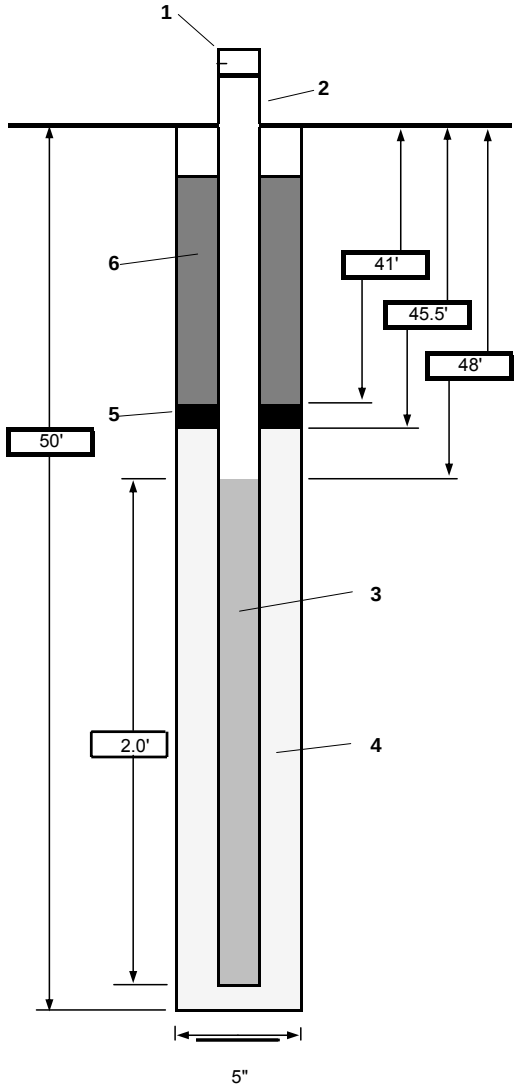
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 7/7/2004 — END: 7/7/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-34	SHEET 1 OF 1

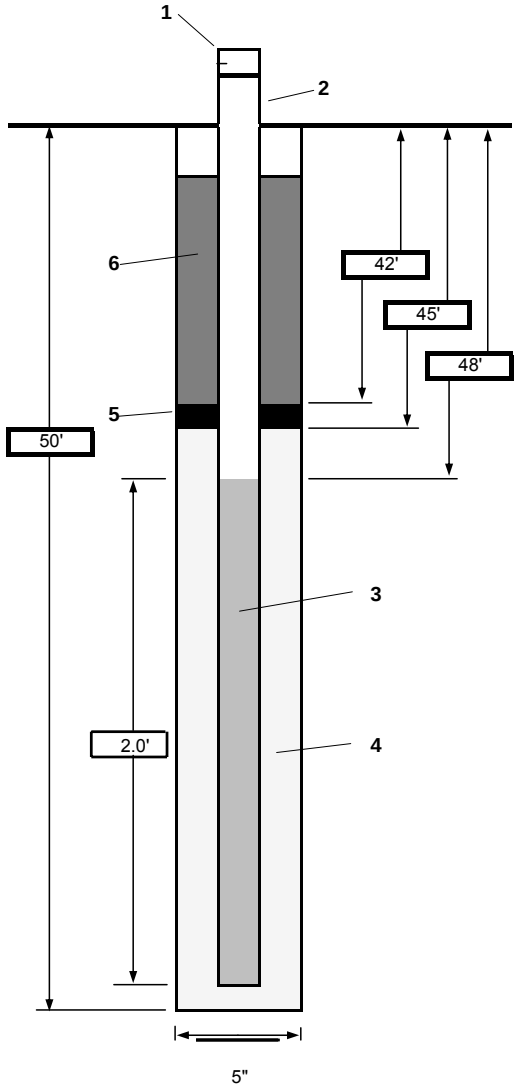
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 7/9/2004 — END: 7/9/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-35	SHEET 1	OF 1

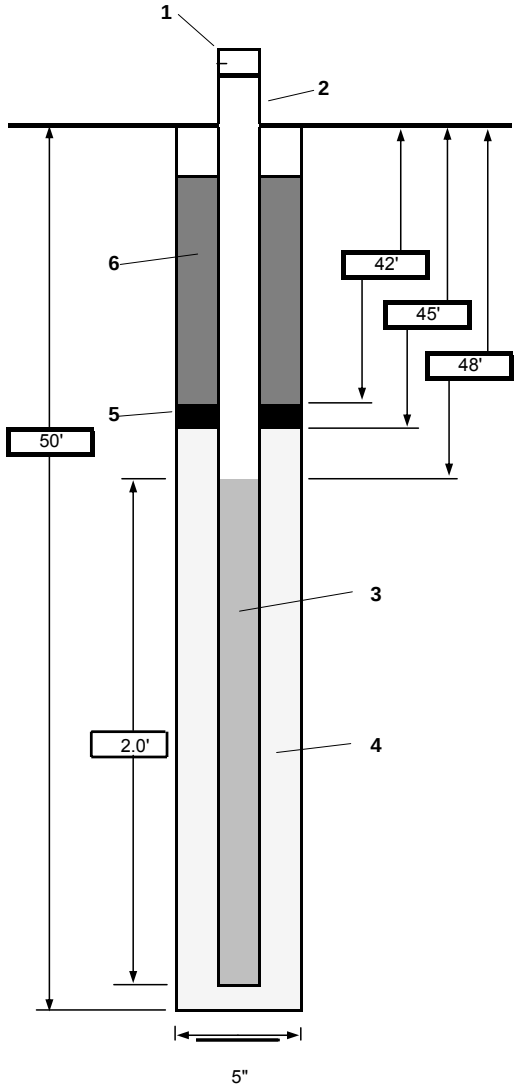
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-36	SHEET 1	OF 1

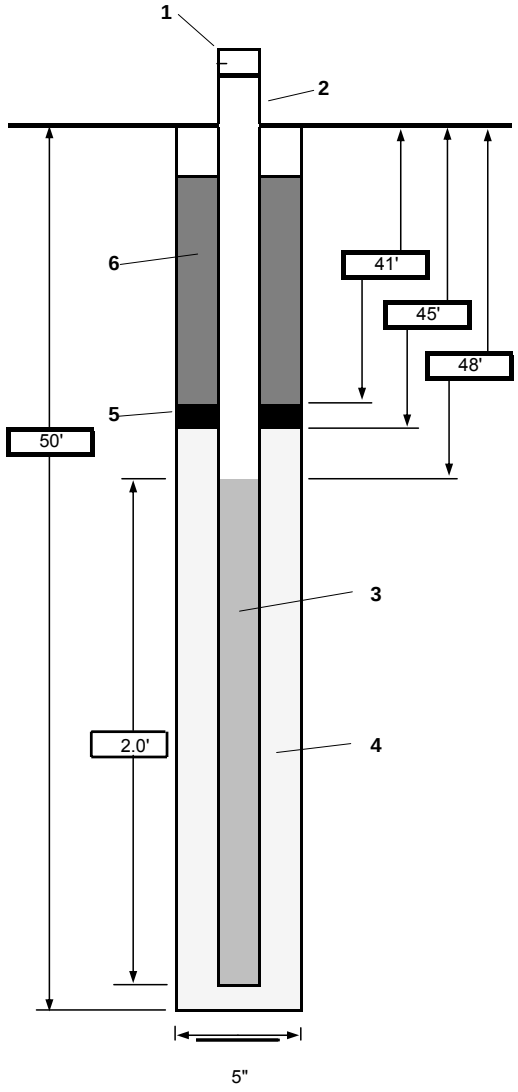
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-37	SHEET 1	OF 1

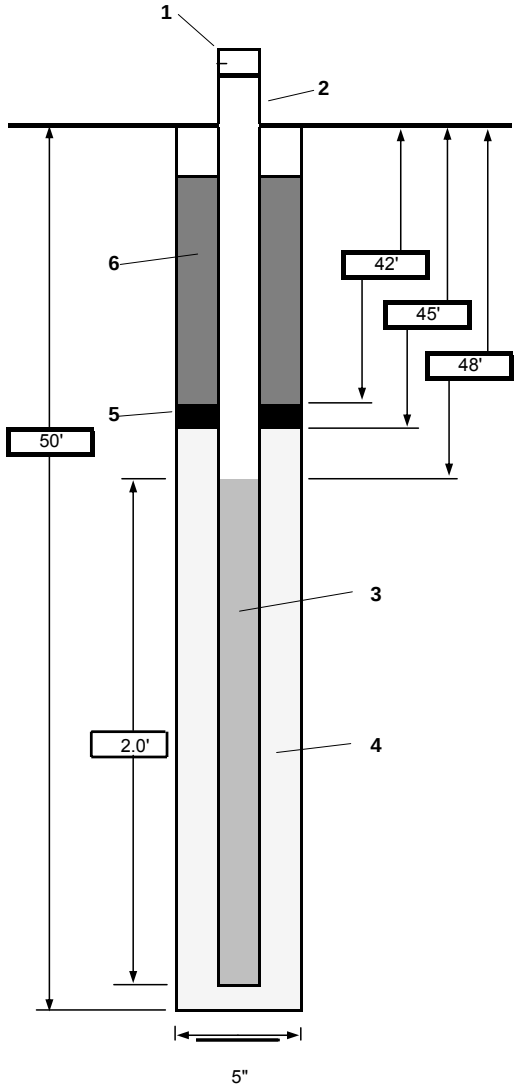
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/26/2004 — END: 6/26/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	AS-38	SHEET 1 OF 1

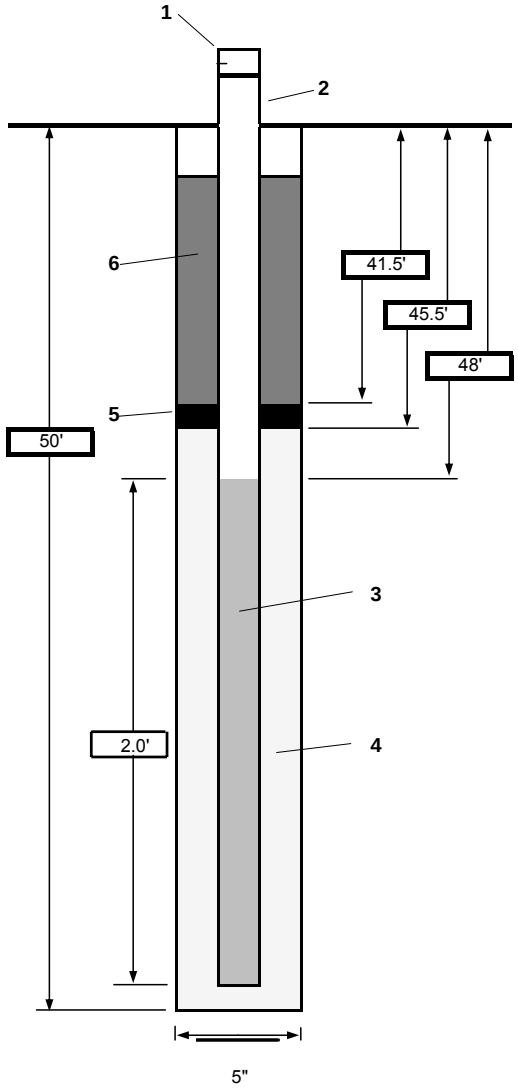
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 0 6/29/2004 END: 6/29/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-39	SHEET 1	OF 1

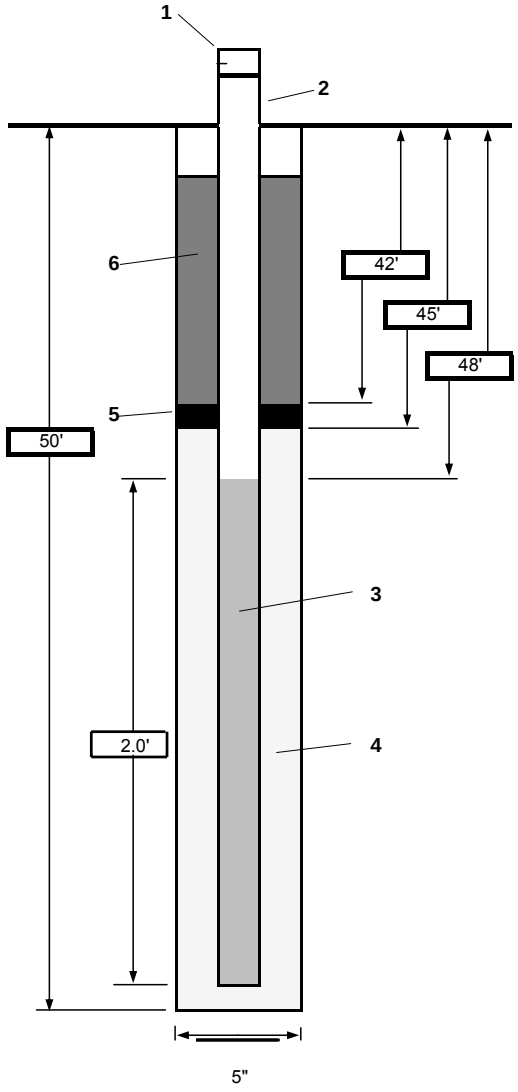
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 7/7/2004 — END: 7/7/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-40	SHEET 1	OF 1

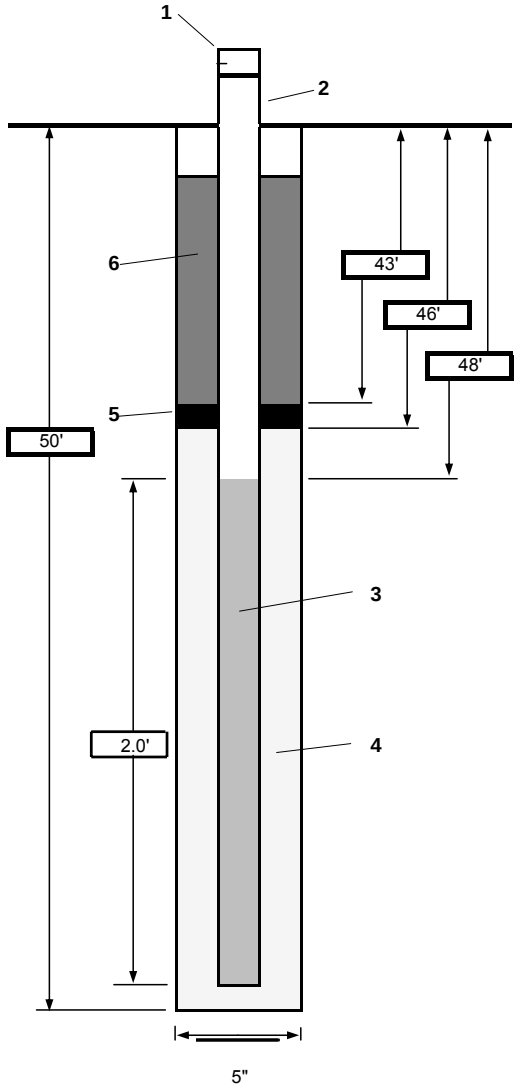
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-41	SHEET 1	OF 1

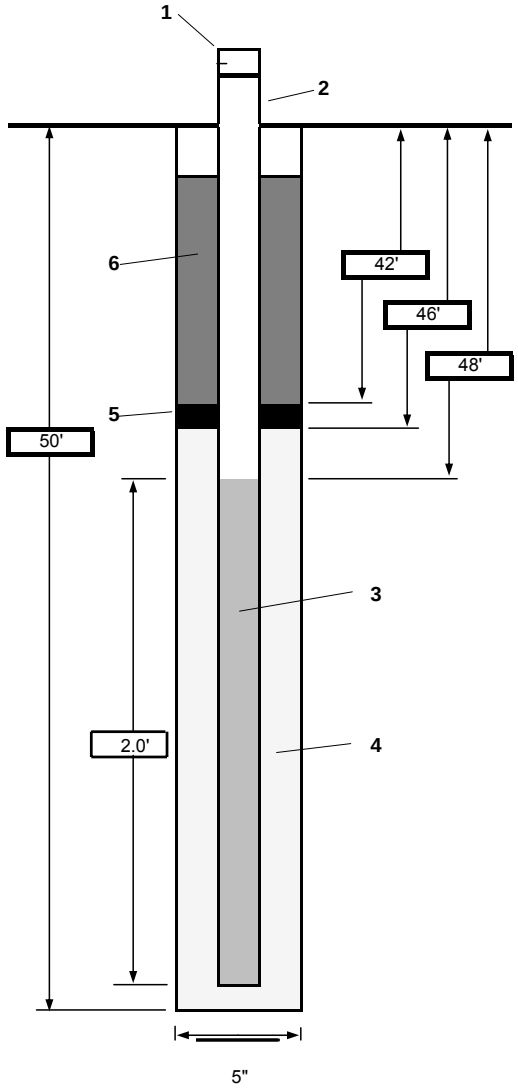
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/25/2004 — END: 6/25/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-42	SHEET 1	OF 1

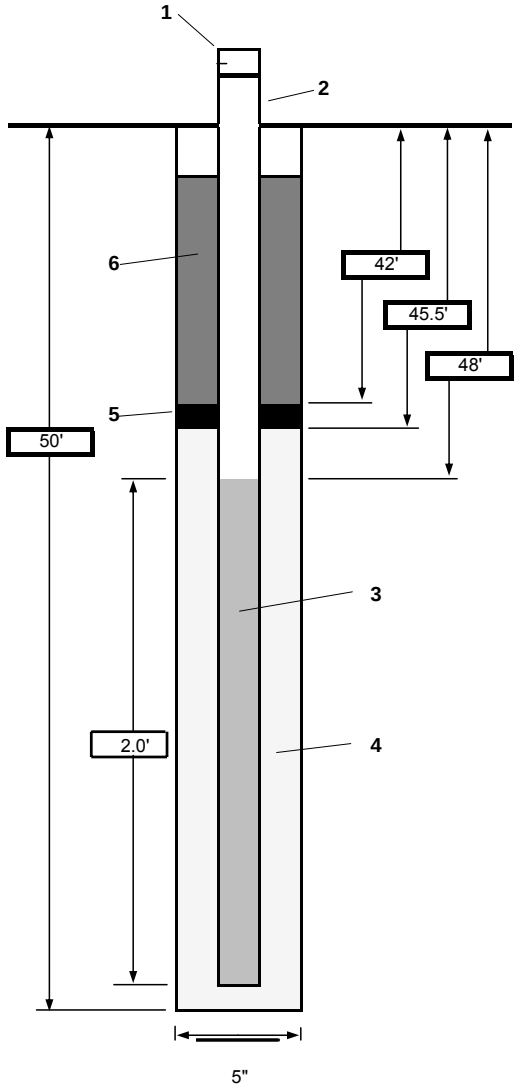
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/28/2004 — END: 6/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-43	SHEET 1	OF 1

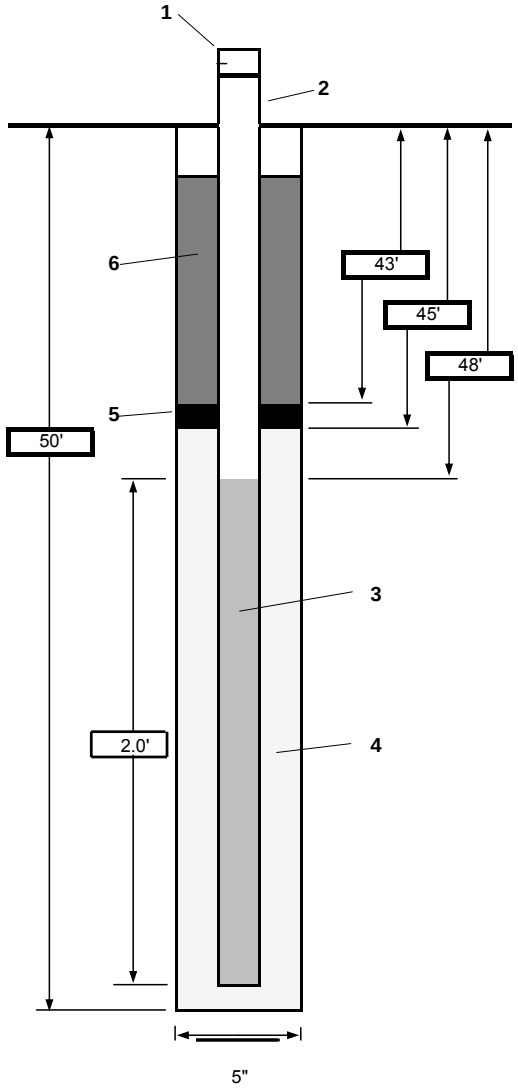
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 7/6/2004 — END: 7/6/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-44	SHEET 1	OF 1

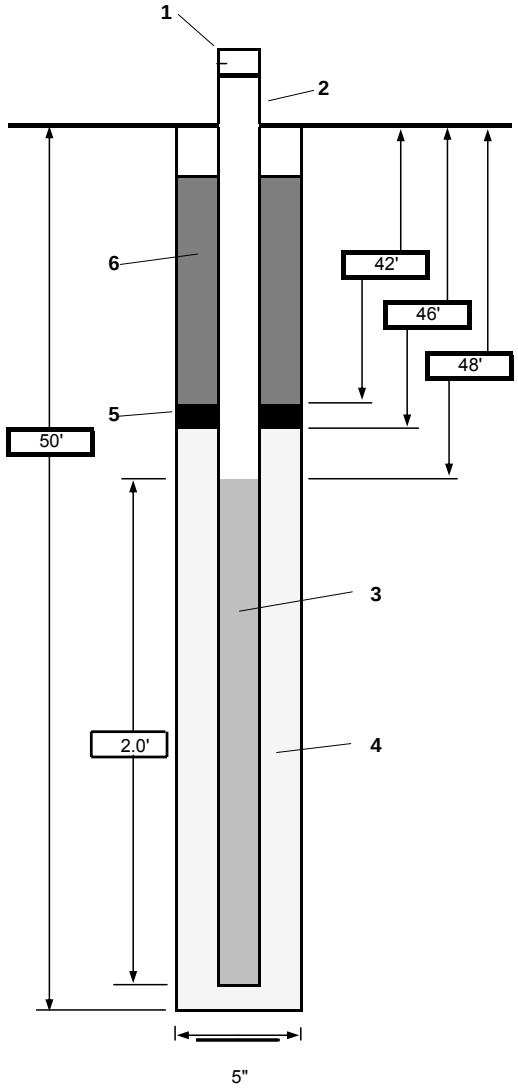
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/25/2004 — END: 6/25/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-45	SHEET 1	OF 1

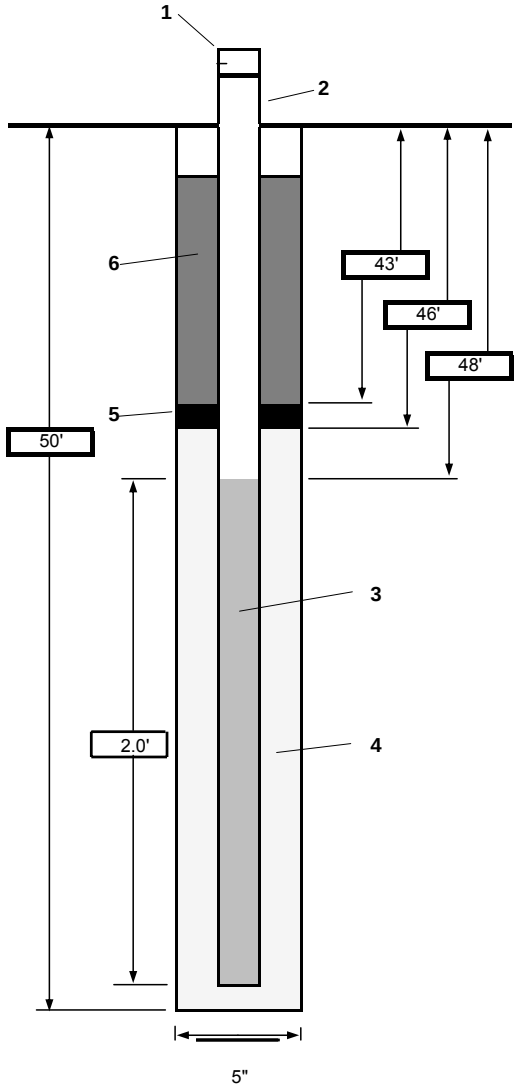
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/28/2004 — END: 6/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AS-46	SHEET 1	OF 1

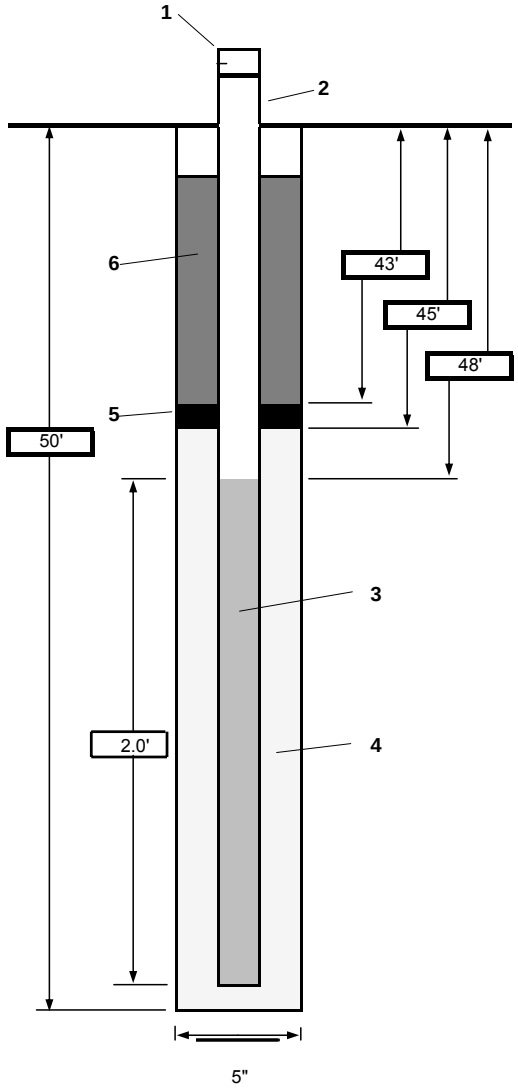
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 0 6/30/2004 — END: 6/30/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-01	SHEET 1	OF 1

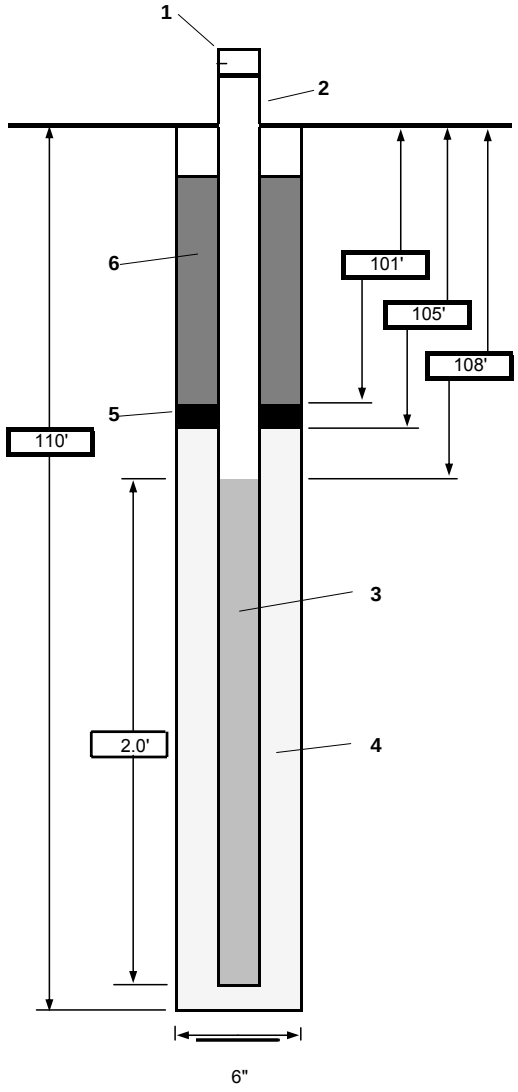
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/14/2004 — END: 7/14/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-02	SHEET 1	OF 1

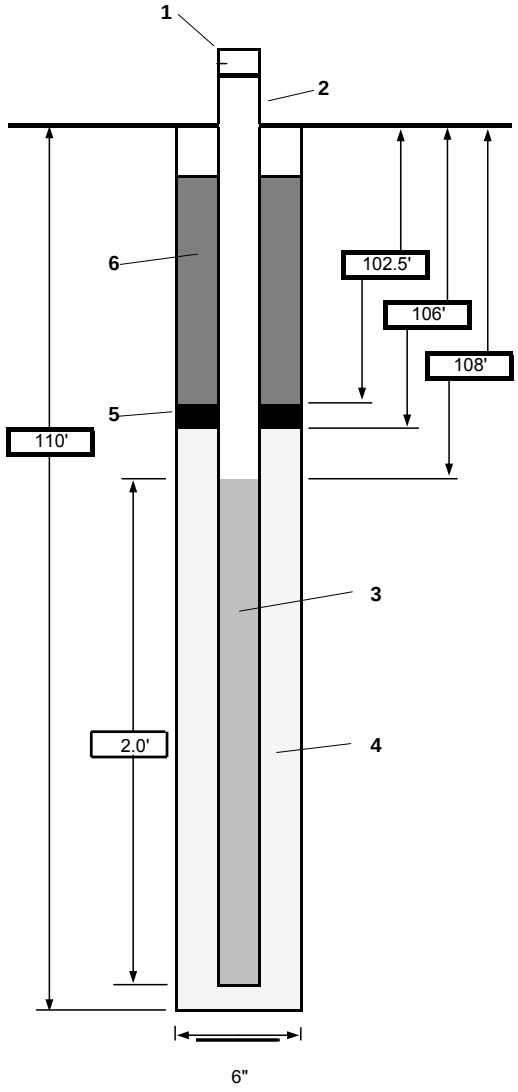
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/15/2004 — END: 7/15/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-03	SHEET 1	OF 1

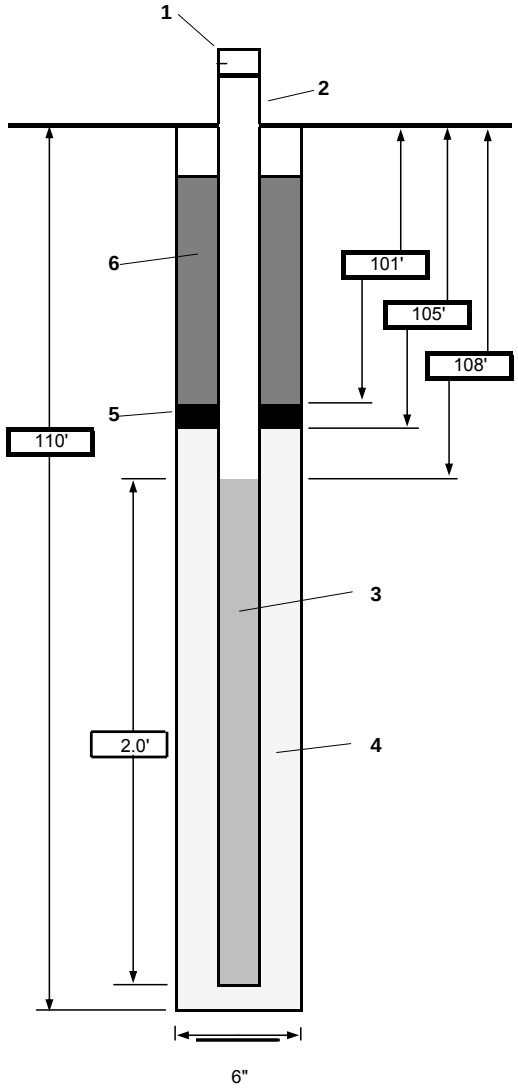
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/13/2004 — END: 7/13/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-04	SHEET 1	OF 1

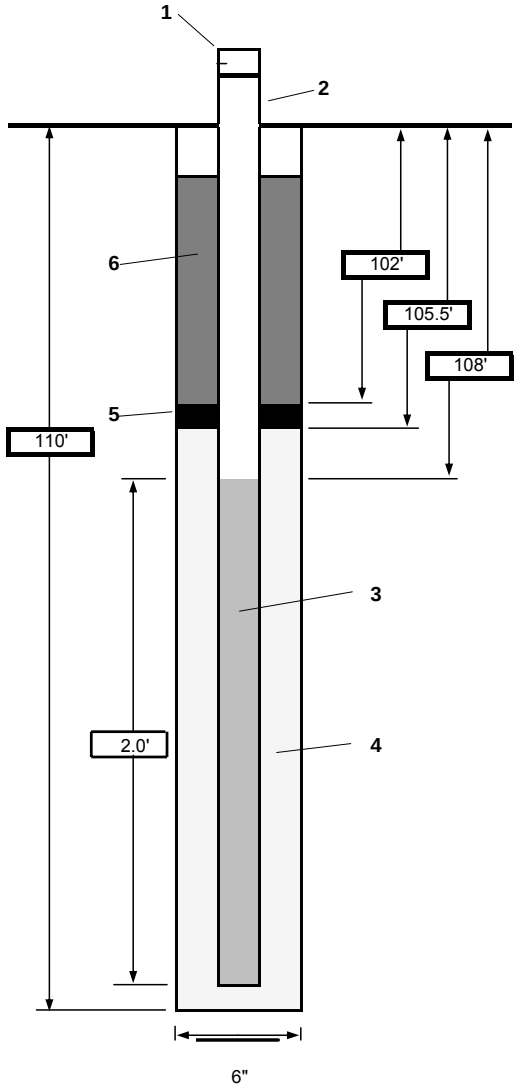
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/19/2004 — END: 7/19/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-05	SHEET 1	OF 1

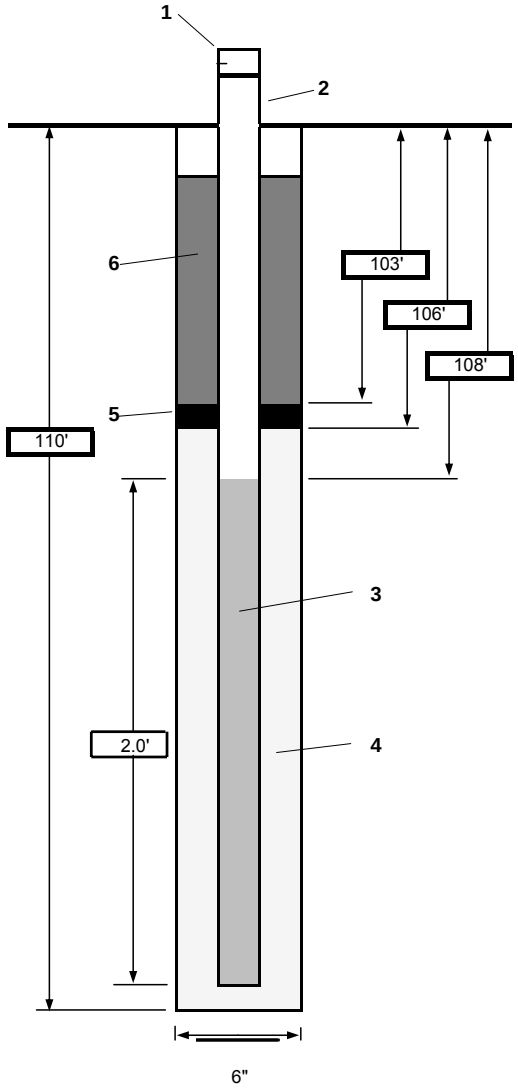
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/21/2004 END: 7/21/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-06	SHEET 1	OF 1

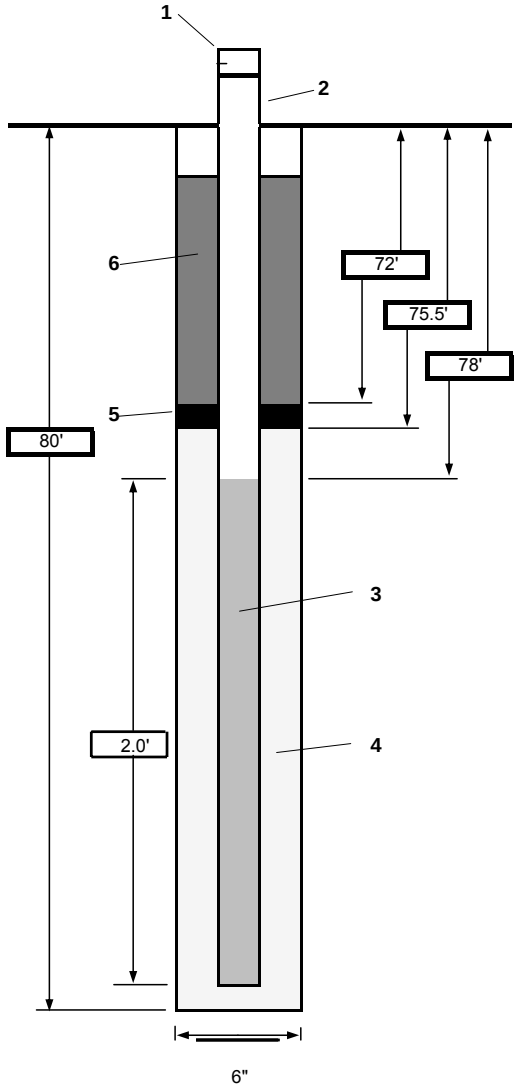
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/23/2004 — END: 7/23/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-07	SHEET 1	OF 1

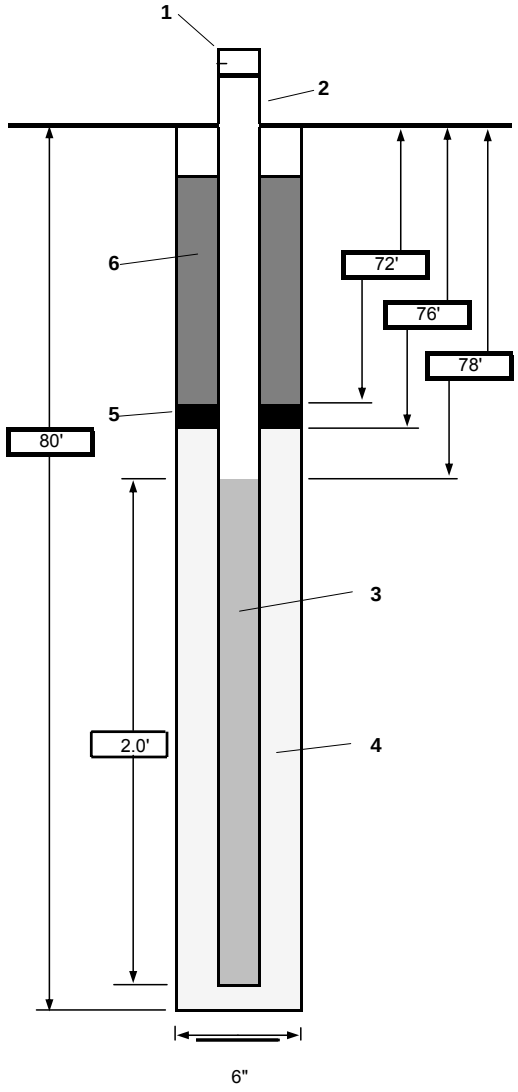
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/19/2004 — END: 7/19/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-08	SHEET 1	OF 1

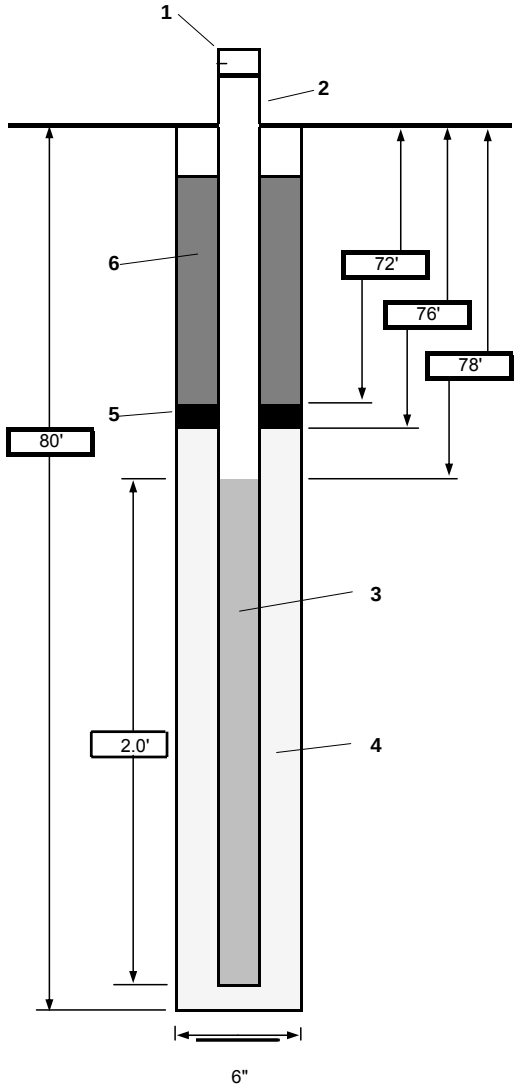
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/21/2004 — END: 7/21/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-09	SHEET 1	OF 1

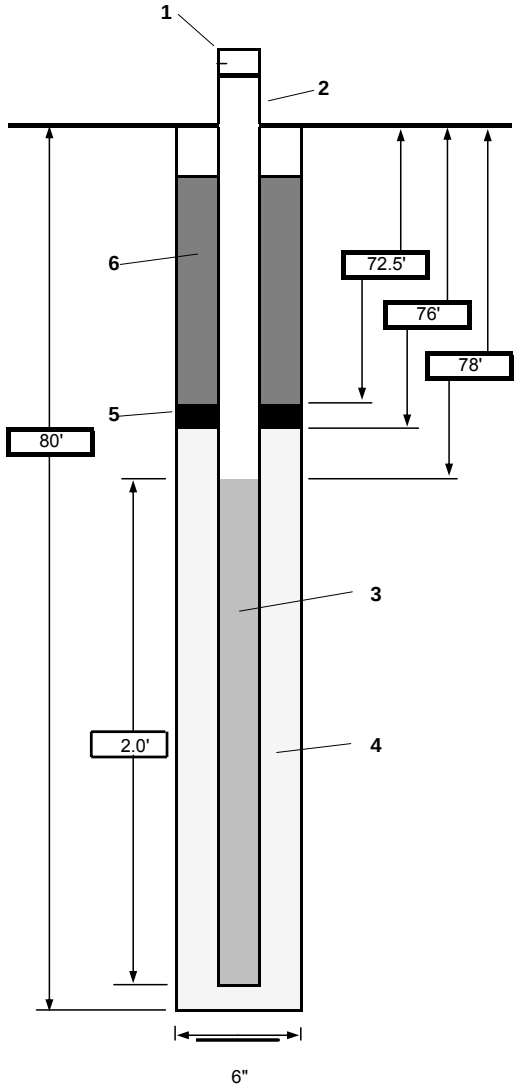
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/23/2004 — END: 7/23/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-09	SHEET 1	OF 1

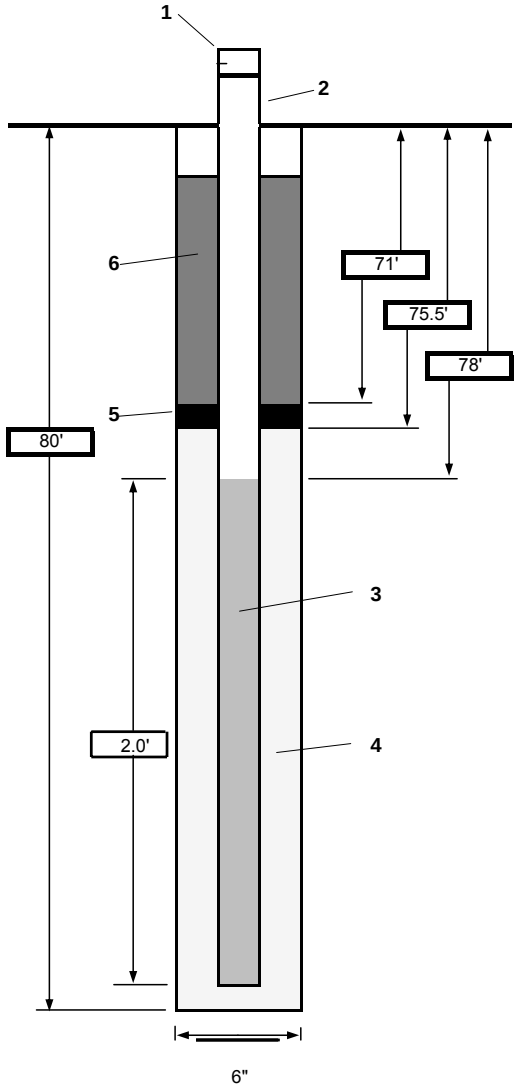
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/26/2004 — END: 7/26/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-11	SHEET 1	OF 1

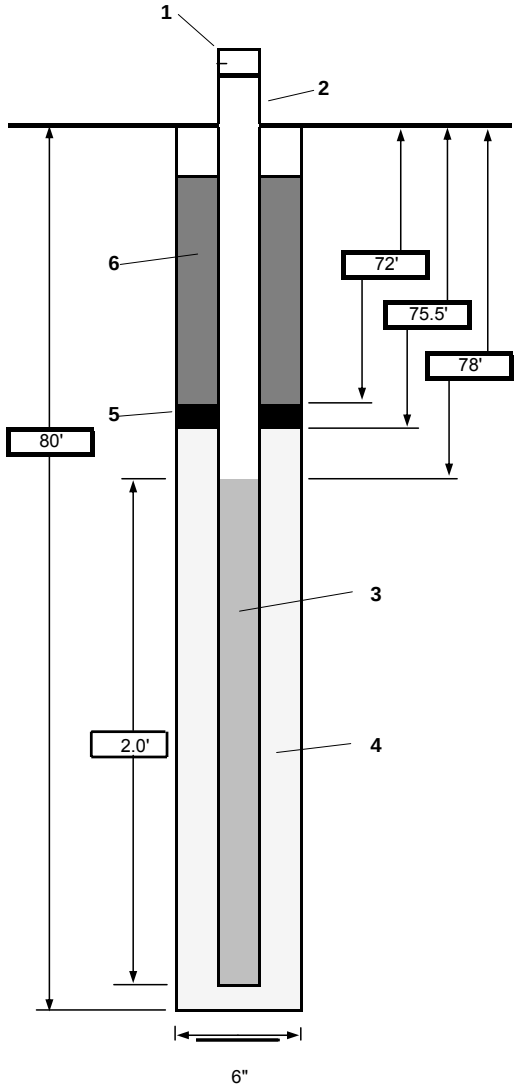
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/21/2004 END: 7/21/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-12	SHEET 1	OF 1

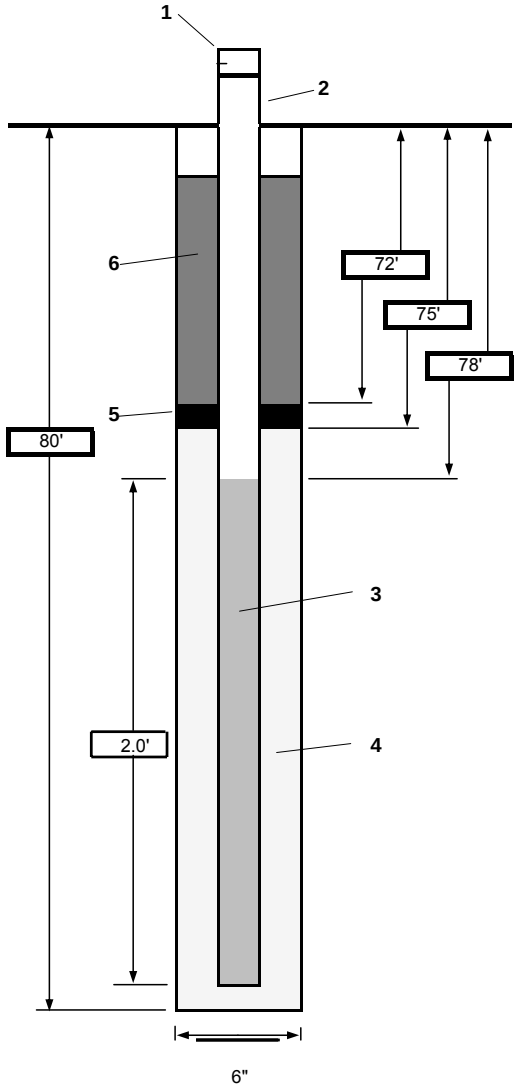
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/29/2004 — END: 7/29/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-13	SHEET 1	OF 1

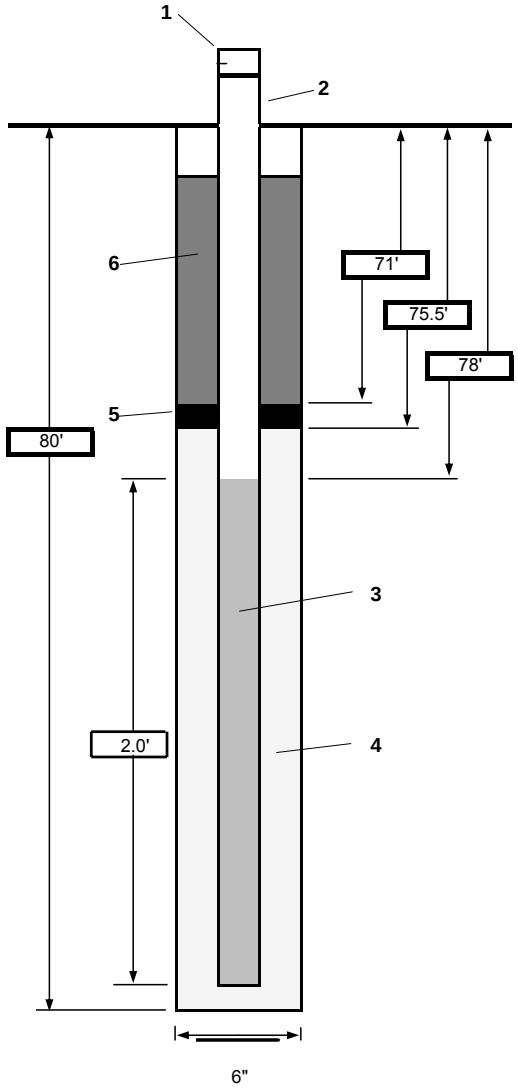
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/26/2004 — END: 7/26/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-14	SHEET 1	OF 1

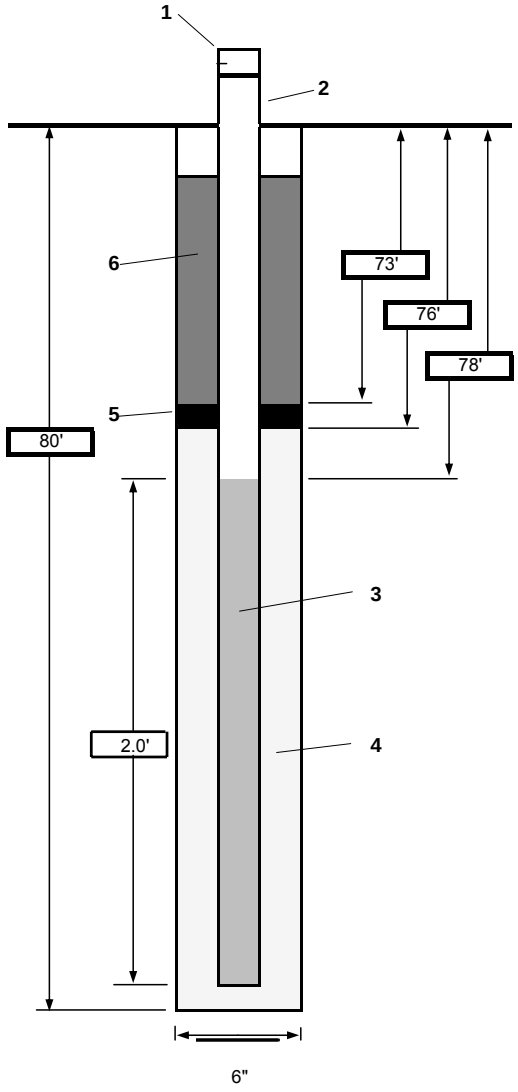
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/28/2004 — END: 7/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-15	SHEET 1	OF 1

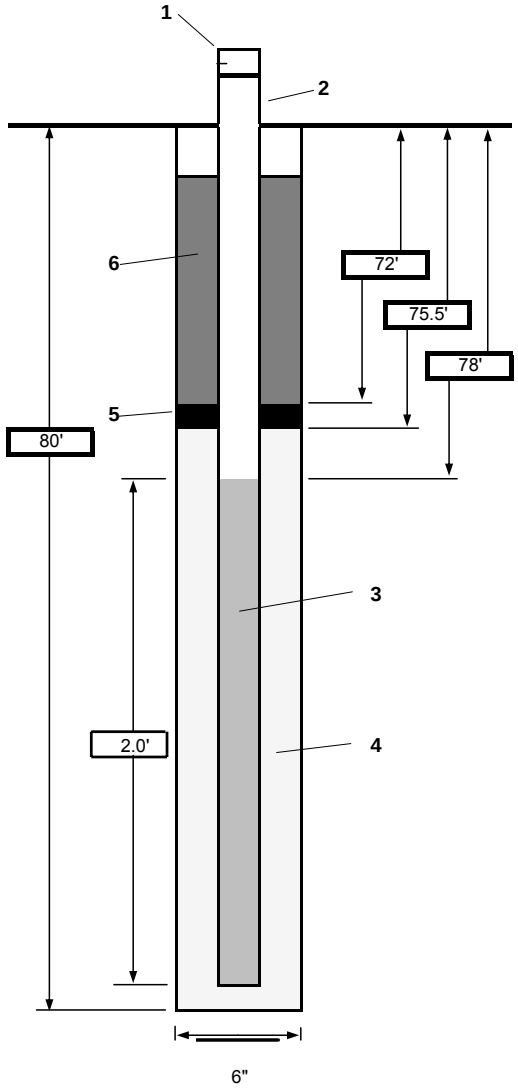
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/24/2004 — END: 7/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-16	SHEET 1	OF 1

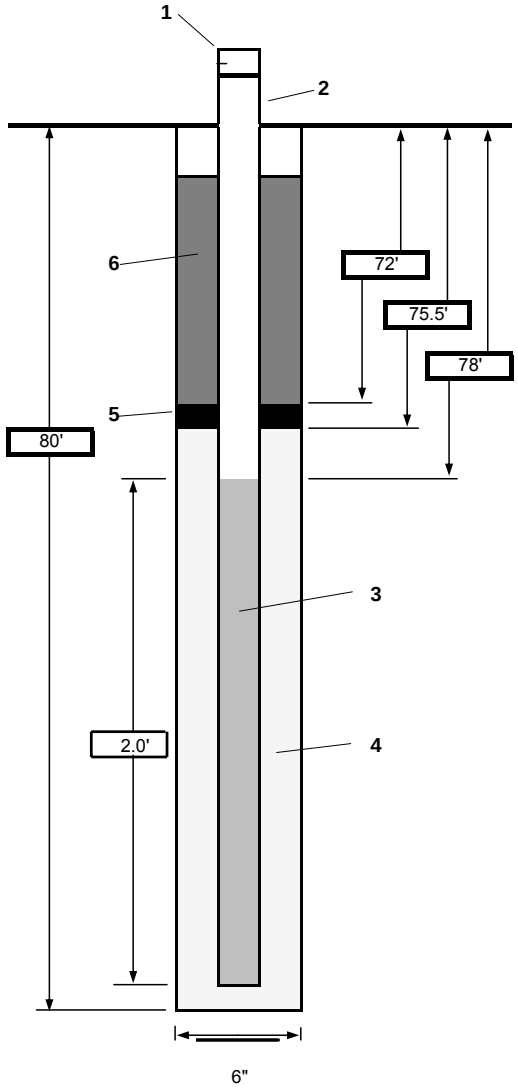
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/24/2004 — END: 7/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-17	SHEET 1	OF 1

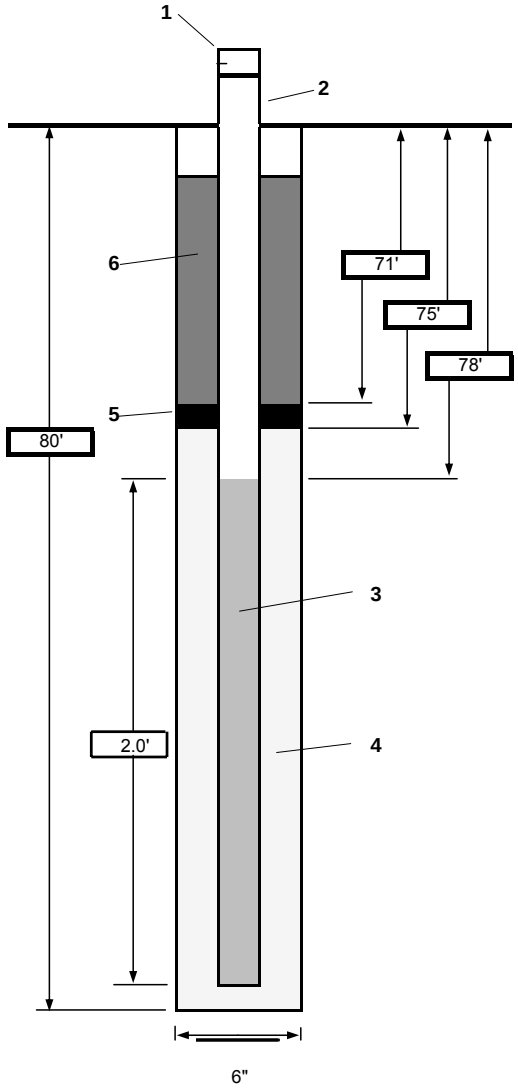
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/28/2004 END: 7/28/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-18	SHEET 1	OF 1

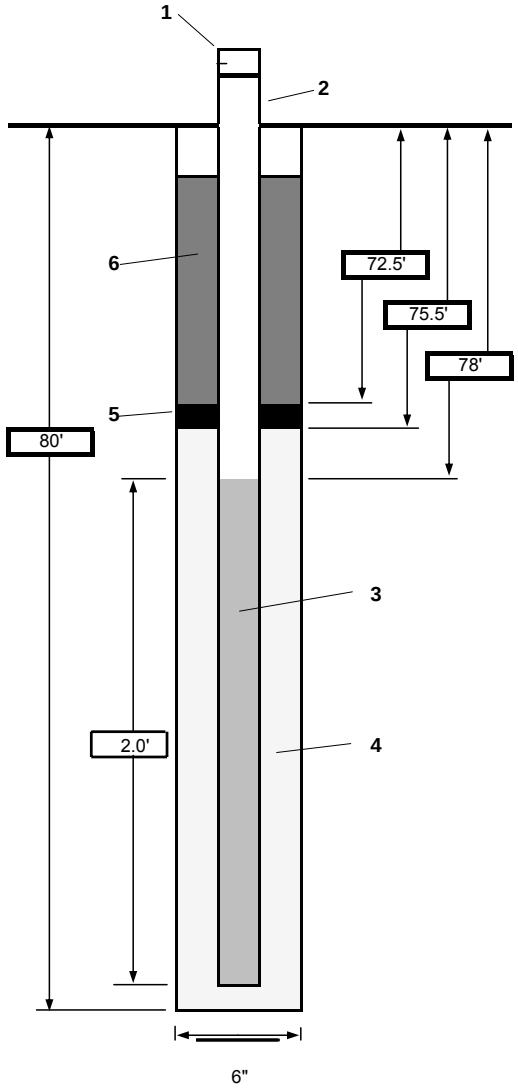
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/28/2004 — END: 7/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-19	SHEET 1	OF 1

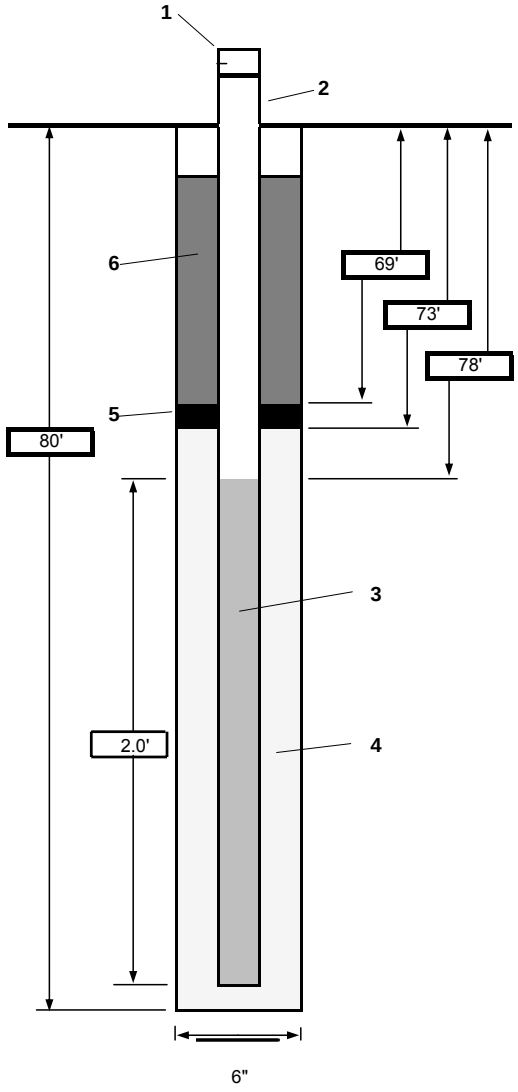
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/14/2004 — END: 7/14/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-20	SHEET 1	OF 1

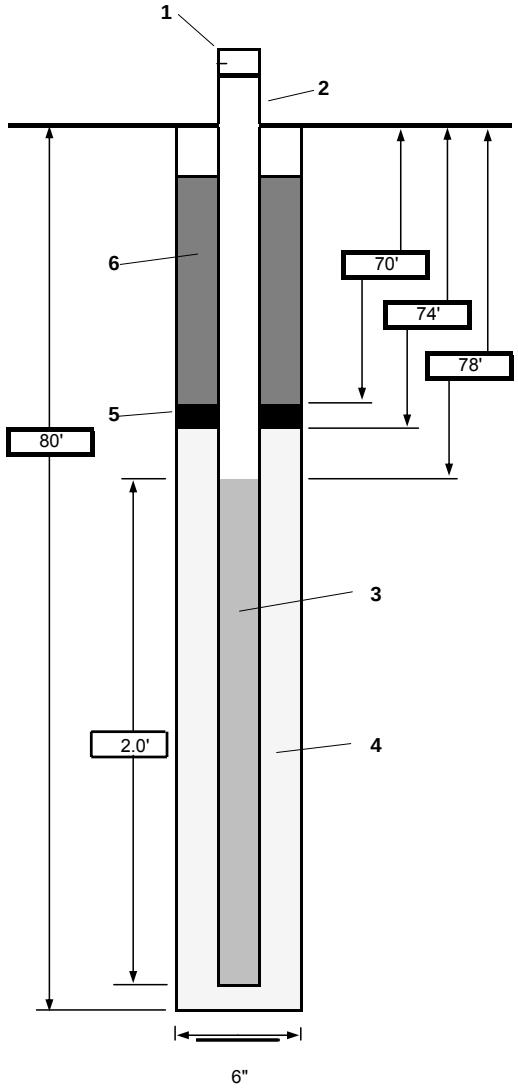
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/14/2004 — END: 7/14/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-21	SHEET 1	OF 1

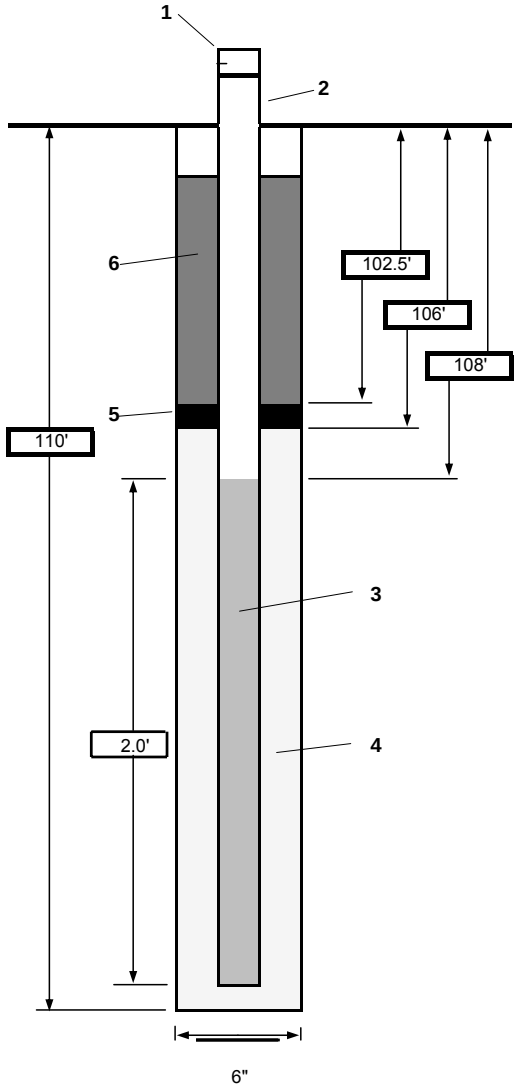
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/22/2004 — END: 7/22/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-22	SHEET 1	OF 1

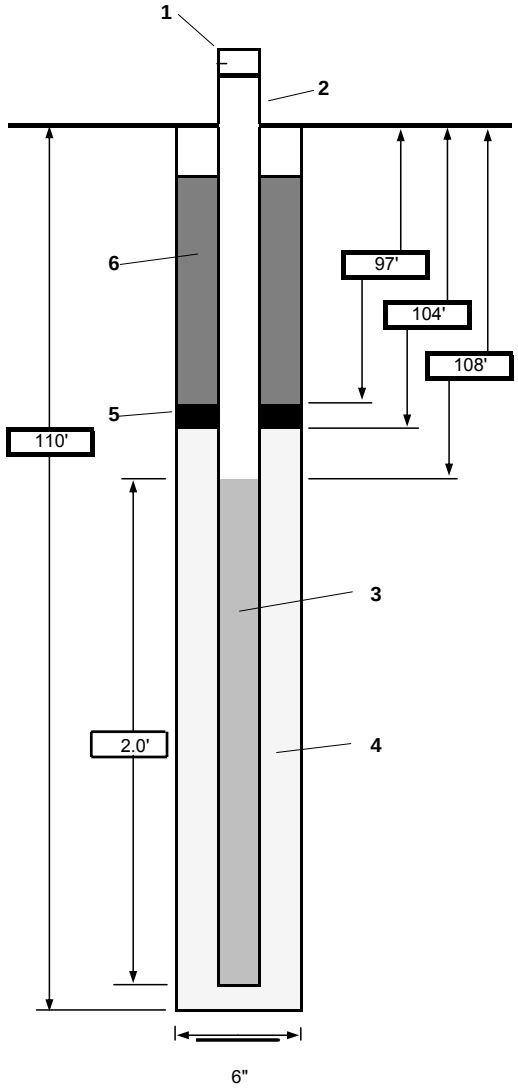
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/24/2004 END: 7/24/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-23	SHEET 1	OF 1

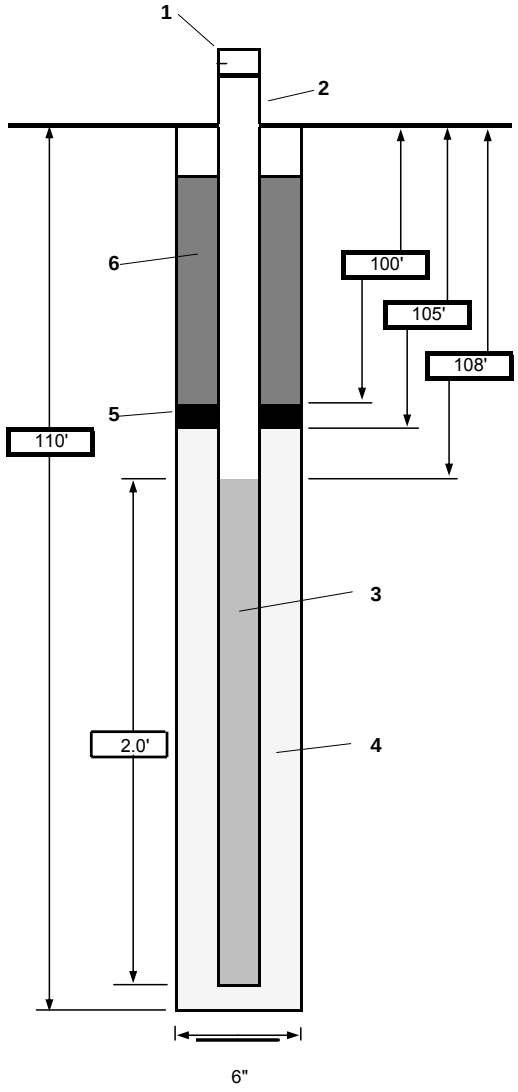
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/26/2004 — END: 7/26/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-24	SHEET 1	OF 1

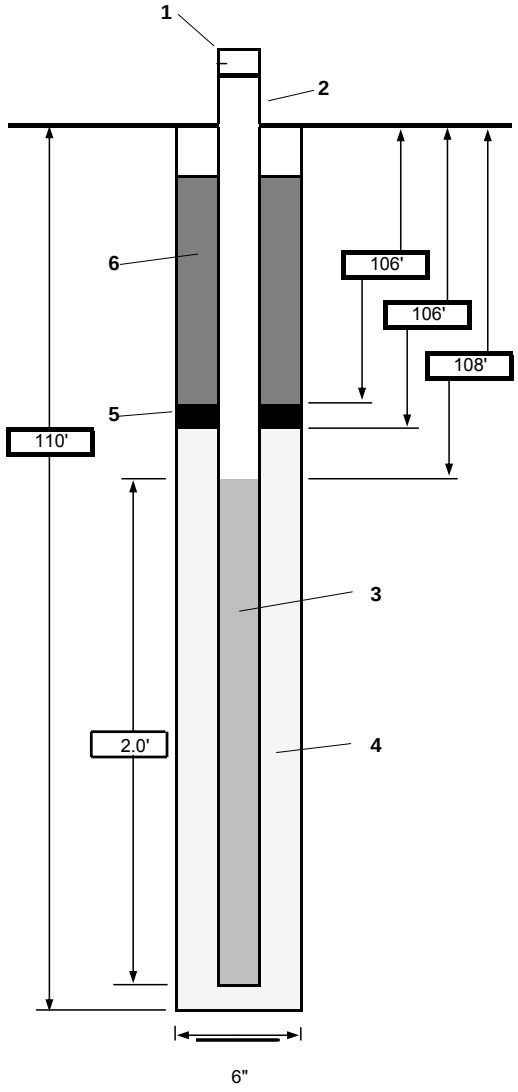
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/23/2004 — END: 7/23/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-25	SHEET 1	OF 1

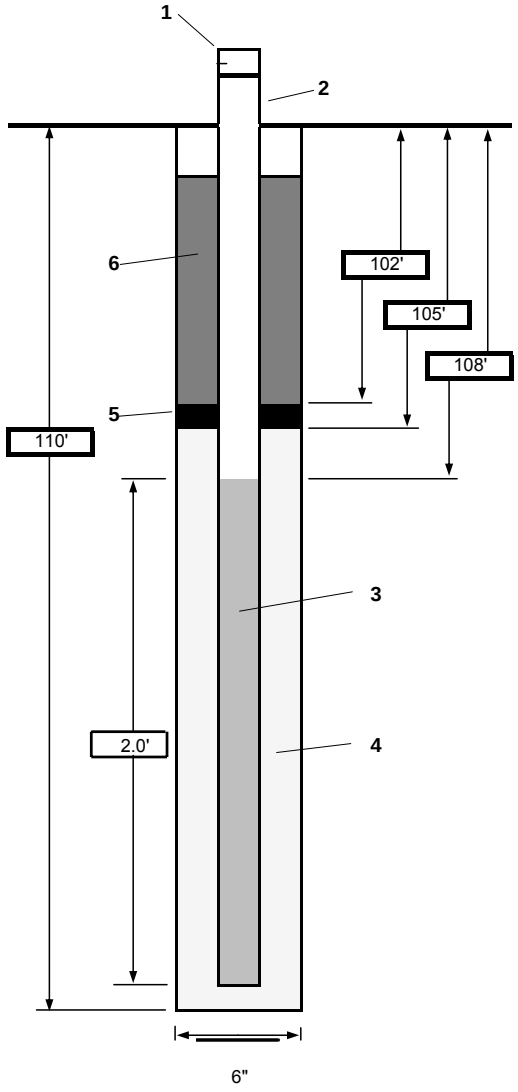
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/27/2004 — END: 7/27/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-26	SHEET 1	OF 1

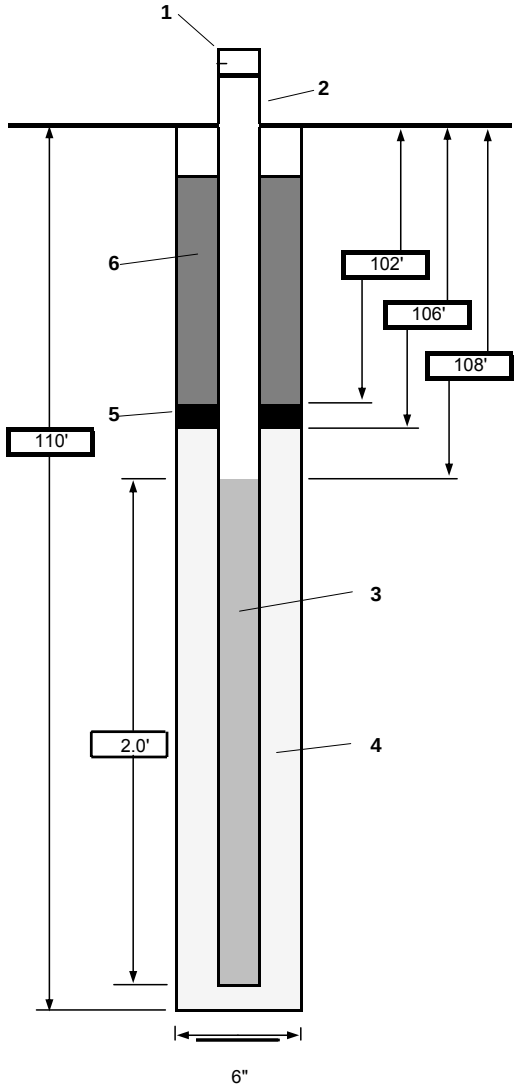
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/3/2004 — END: 8/3/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-27	SHEET 1	OF 1

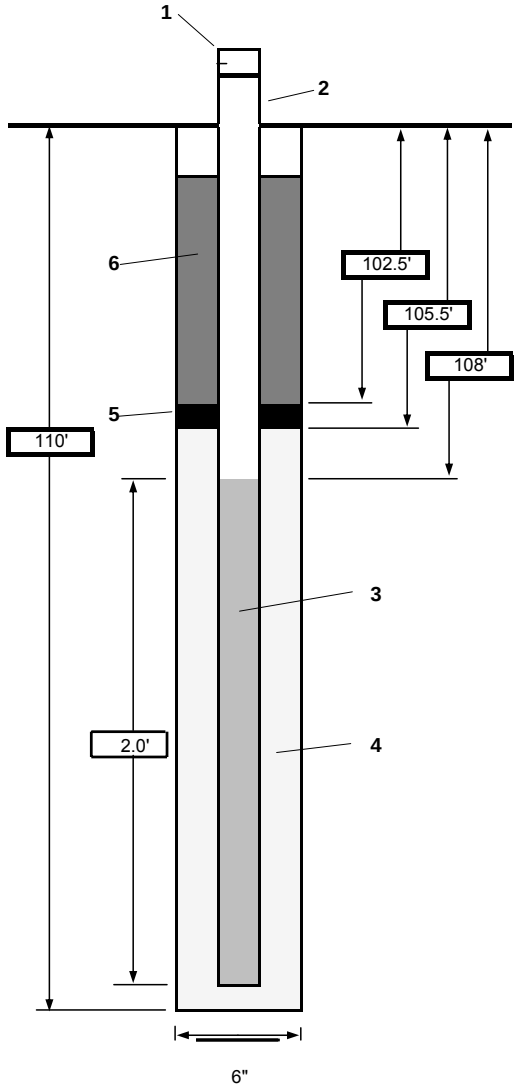
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/3/2004 END: 8/3/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-28	SHEET 1	OF 1

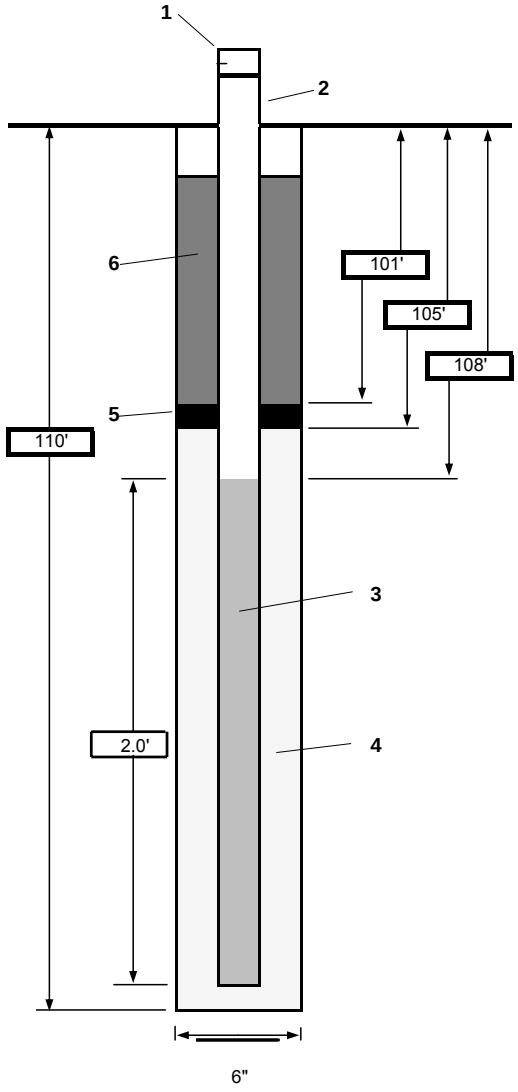
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/3/2004 END: 8/3/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-30	SHEET 1	OF 1

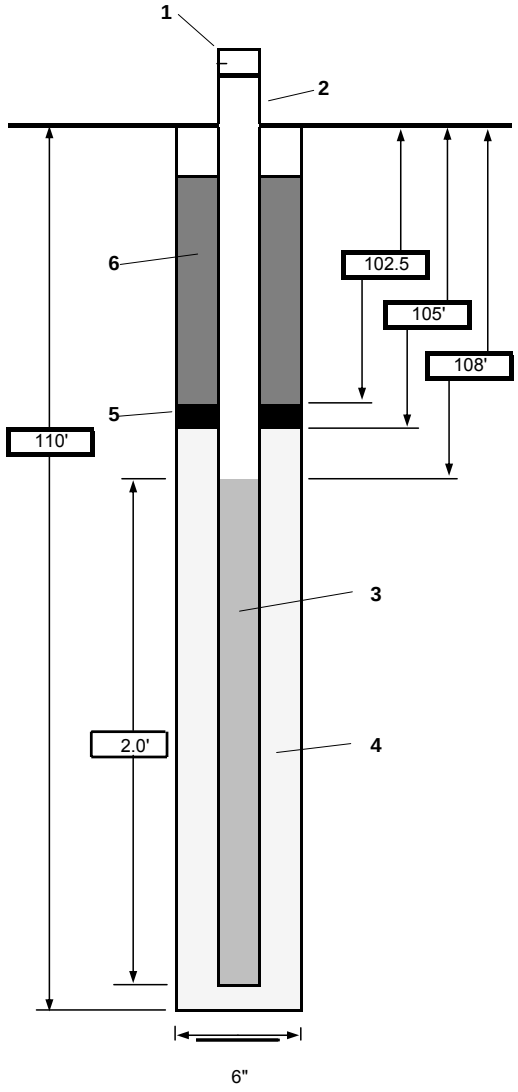
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/4/2004 — END: 8/4/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	AD-31	SHEET 1	OF 1

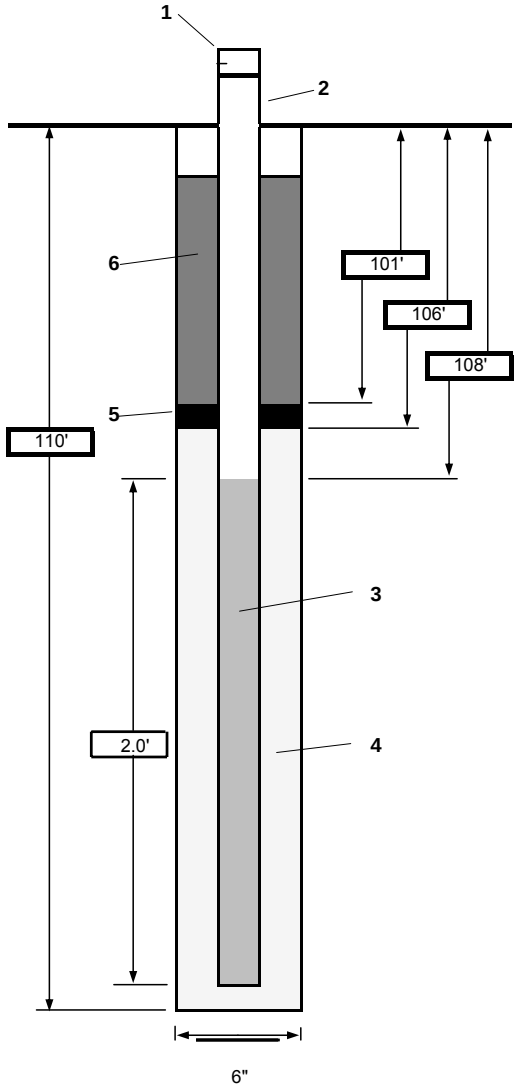
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/27/2004 — END: 7/27/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-02	SHEET 1	OF 1

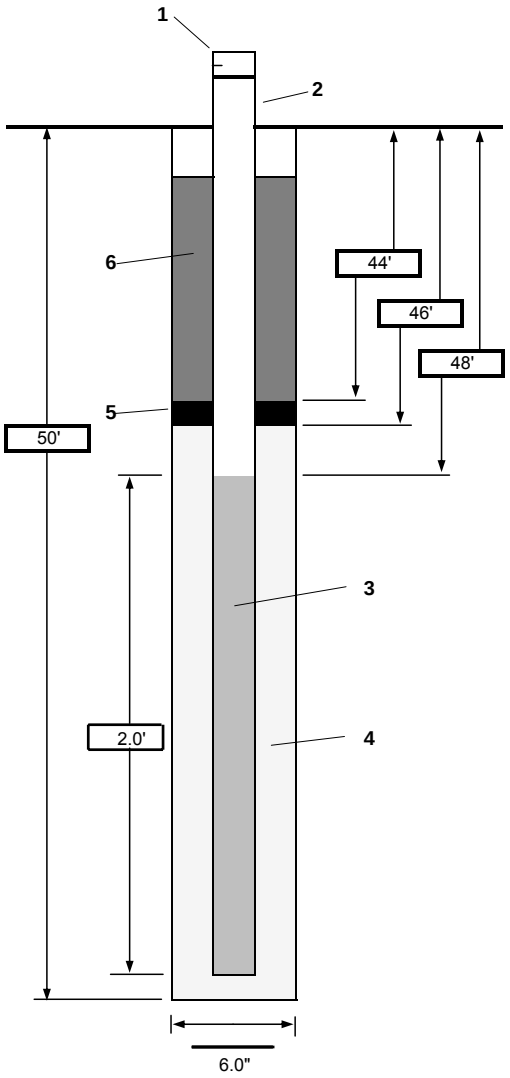
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/22/2004 END : 6/22/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-03	SHEET 1	OF 1

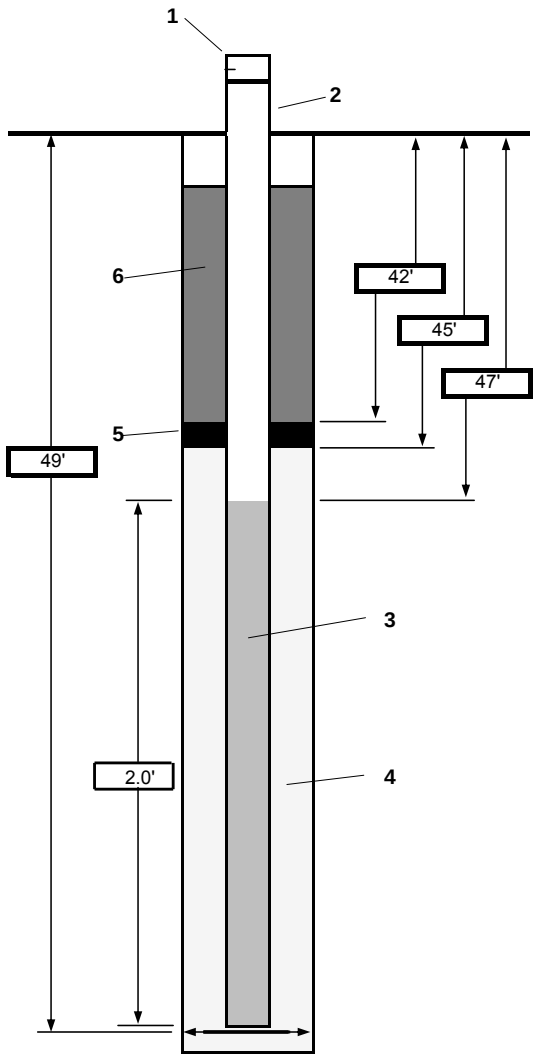
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/22/2004 END : 6/22/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-04	SHEET 1	OF 1

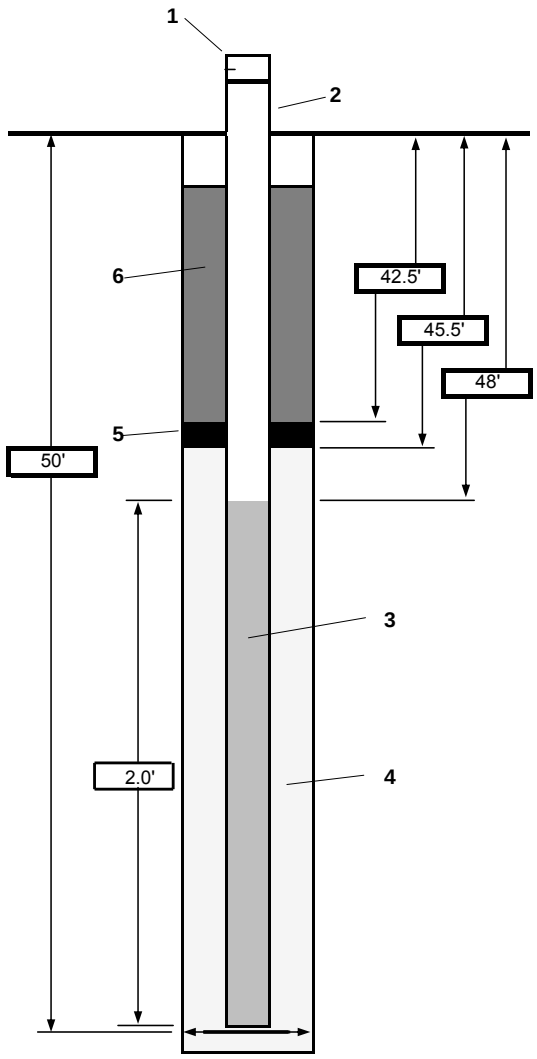
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/24/2004 END : 6/24/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-05	SHEET 1	OF 1

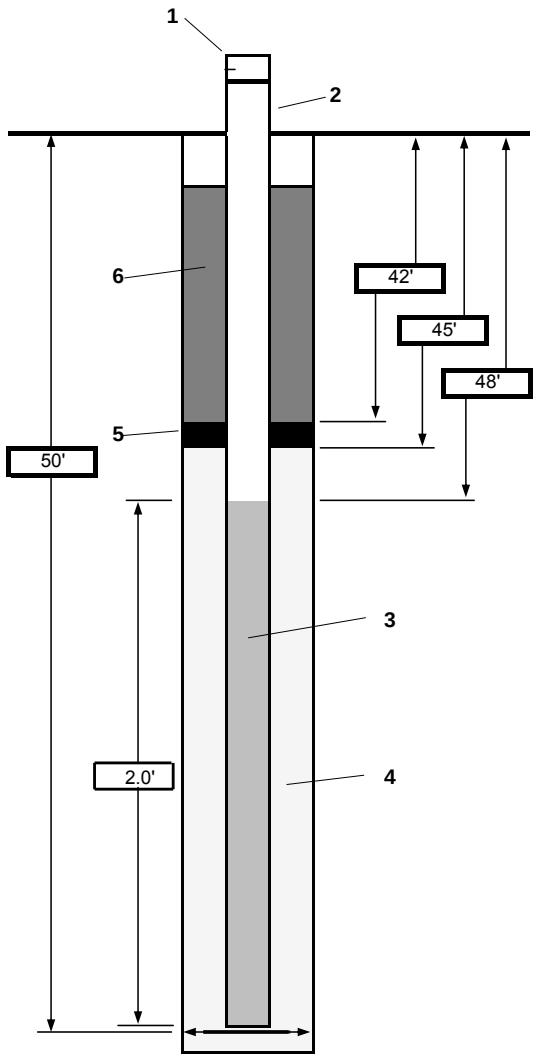
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/12/2004 END : 7/12/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-06	SHEET 1	OF 1

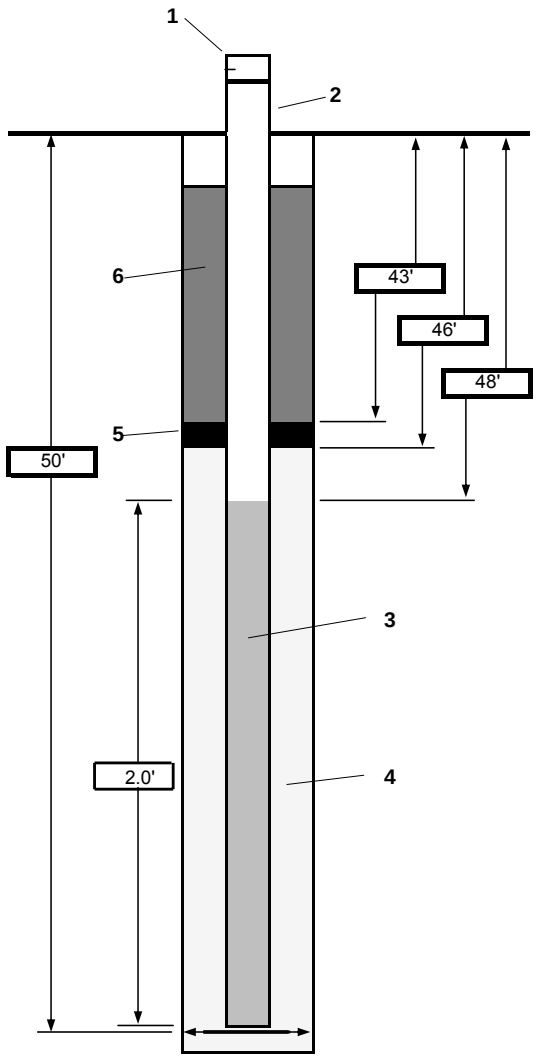
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/29/2004 END : 6/29/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-07	SHEET 1	OF 1

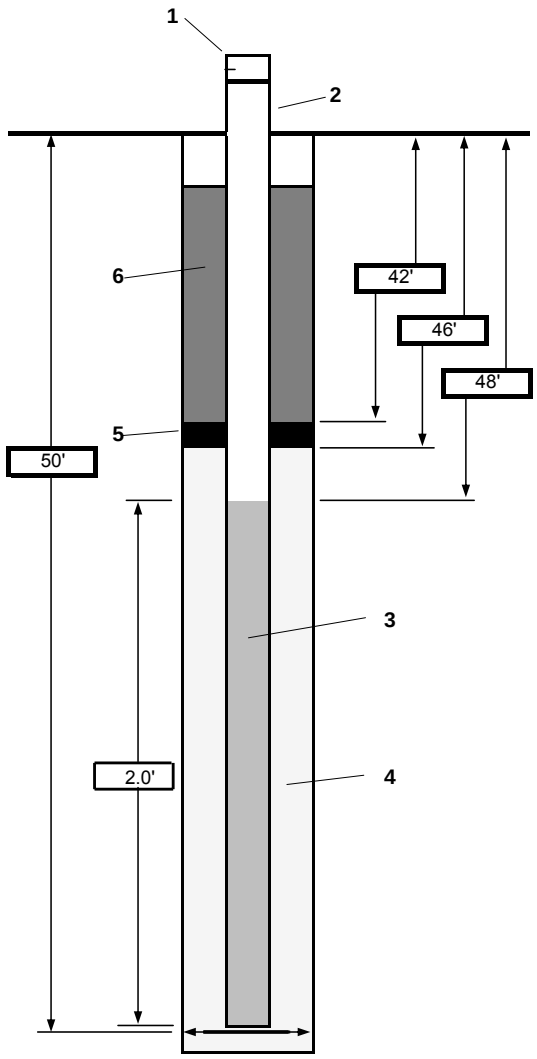
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/12/2004 END : 7/12/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-08	SHEET 1	OF 1

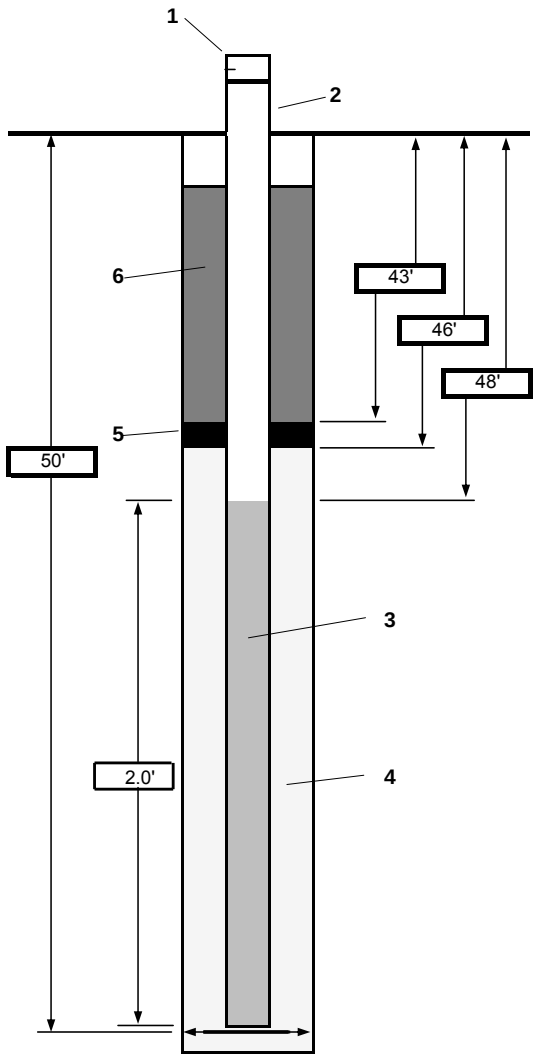
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/07/2004 END : 7/07/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-09	SHEET 1	OF 1

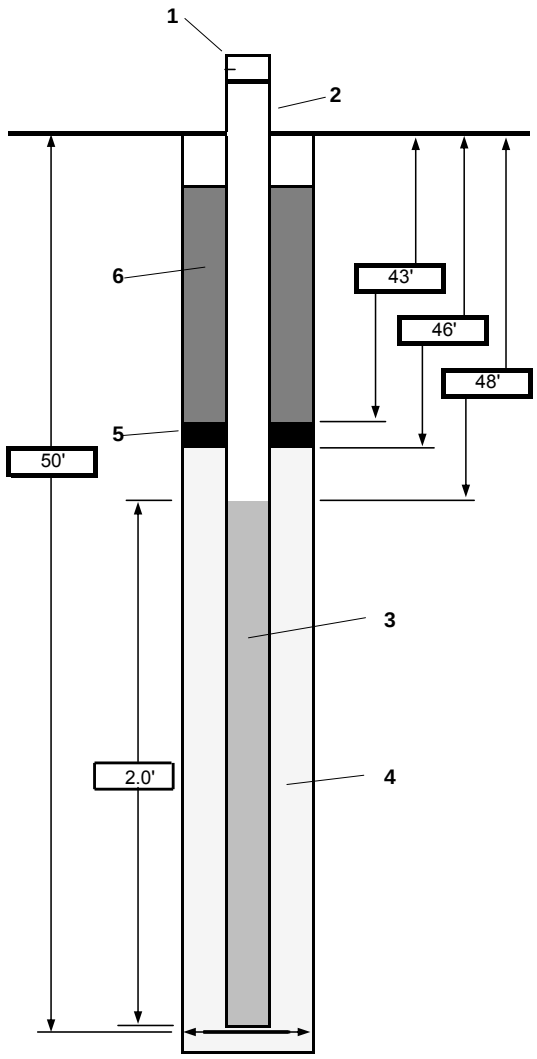
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/23/2004 END : 6/23/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-10	SHEET 1	OF 1

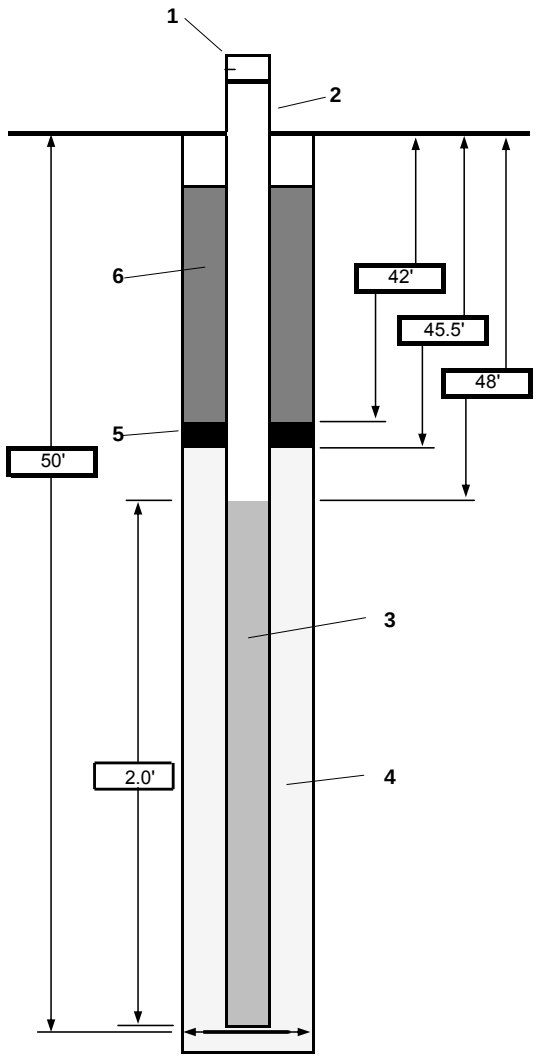
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/08/2004 END : 7/08/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-11	SHEET 1	OF 1

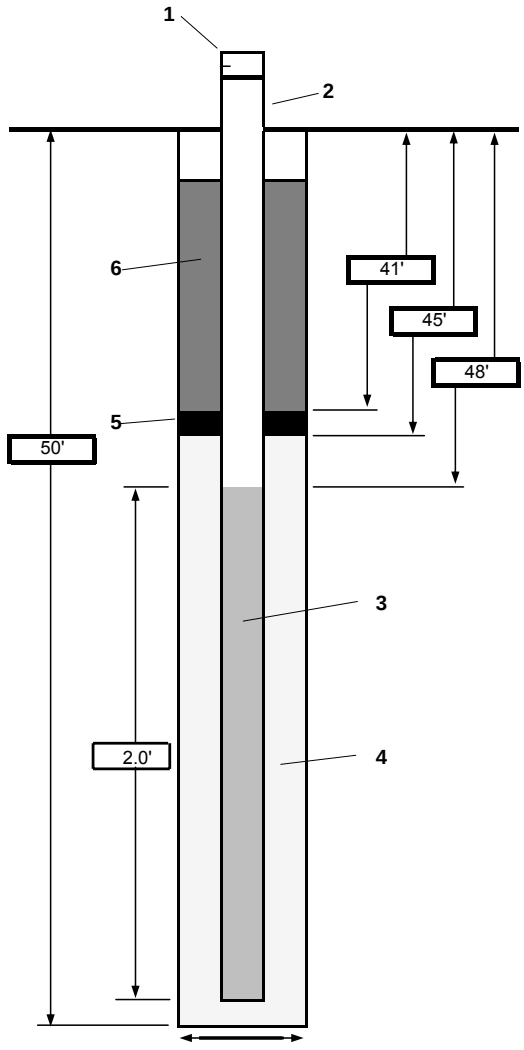
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/23/2004 END : 6/23/2004 LOGGER : Jim Baker



1- Top of casing elevation: Not obtained

2- Dia./type of well casing: 1-inch diameter Sch. 80 PVC

3- Type/slot size of screen: 0.010-inch machine slotted Sch. 80 PVC

4- Type screen filter: 20/30 sieve size silica sand
a) Quantity used: 1.5 (50lb bags)

5- Type of seal: 3/8-inch barroid bentonite chips
a) Quantity used: 25lbs (1/2 50lb bag)
b Hydration time: 1.0 hour

6- Grout: Type I/II Portland neat cement
a) Method of placement: 1-inch inside diameter tremie pipe
b) Casing grout weight: > 13.2 lbs per gallon

Development method: Waterra Hydrolift II pump

7- Development time: Approx. 60 minutes

Estimated purge volume: Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-12	SHEET 1	OF 1

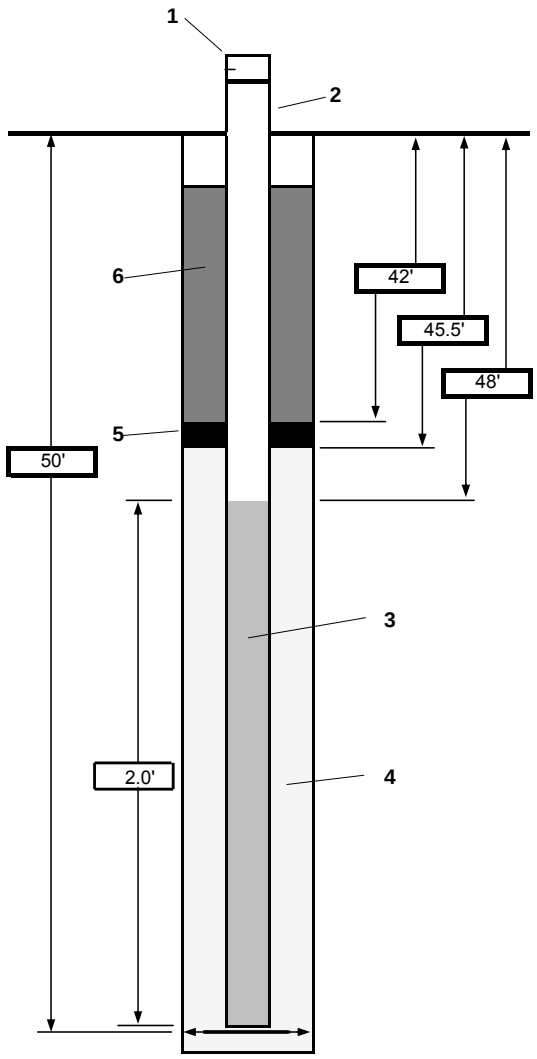
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/10/2004 END : 7/10/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-13	SHEET 1	OF 1

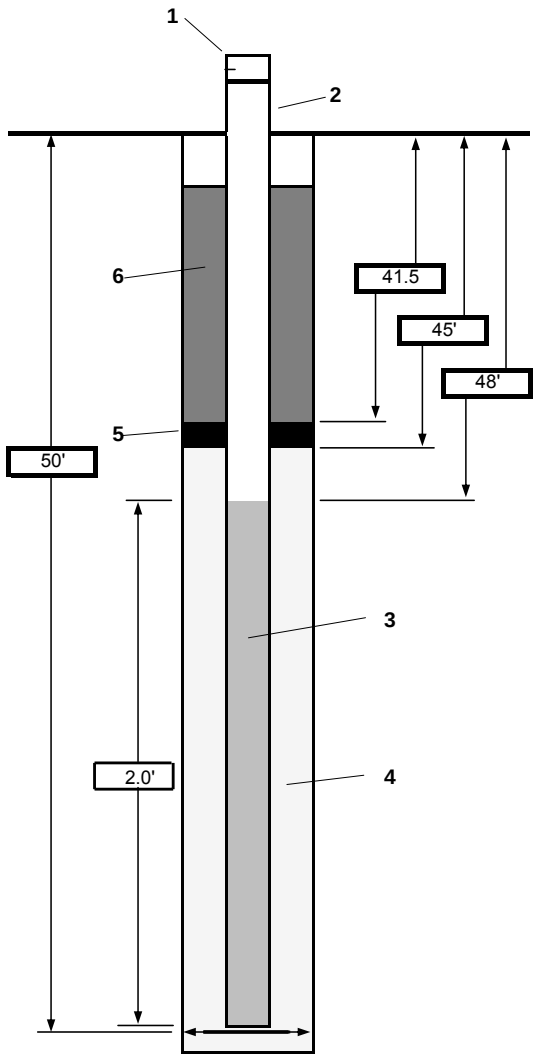
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/23/2004 END : 6/23/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-14	SHEET 1	OF 1

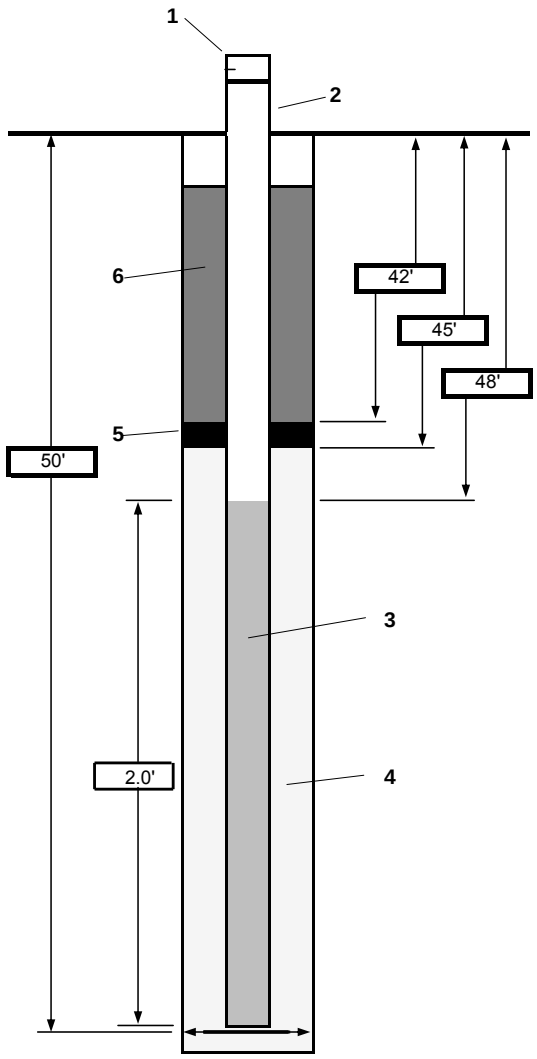
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/12/2004 END : 7/12/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-15	SHEET 1	OF 1

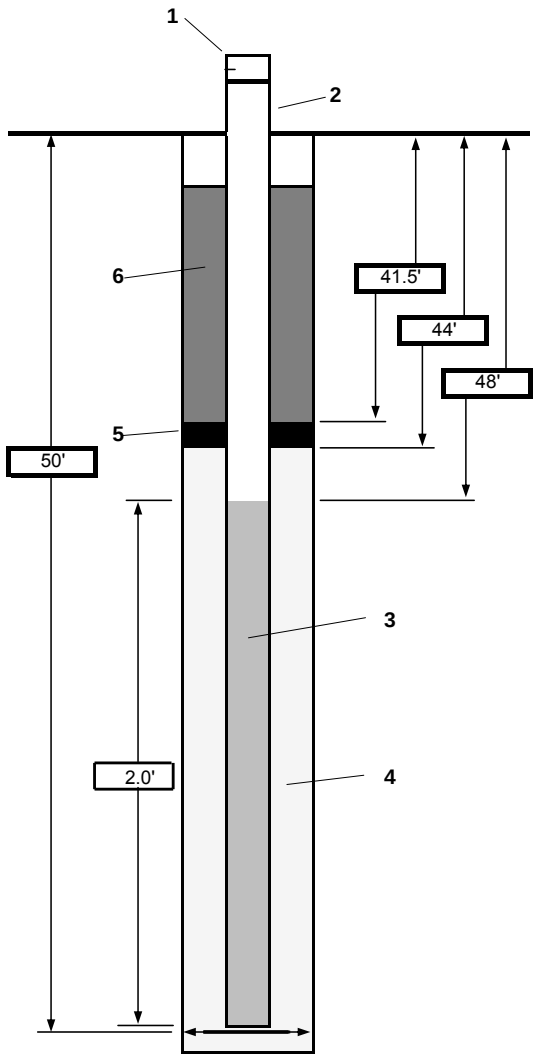
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/23/2004 END : 6/23/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-16	SHEET 1	OF 1

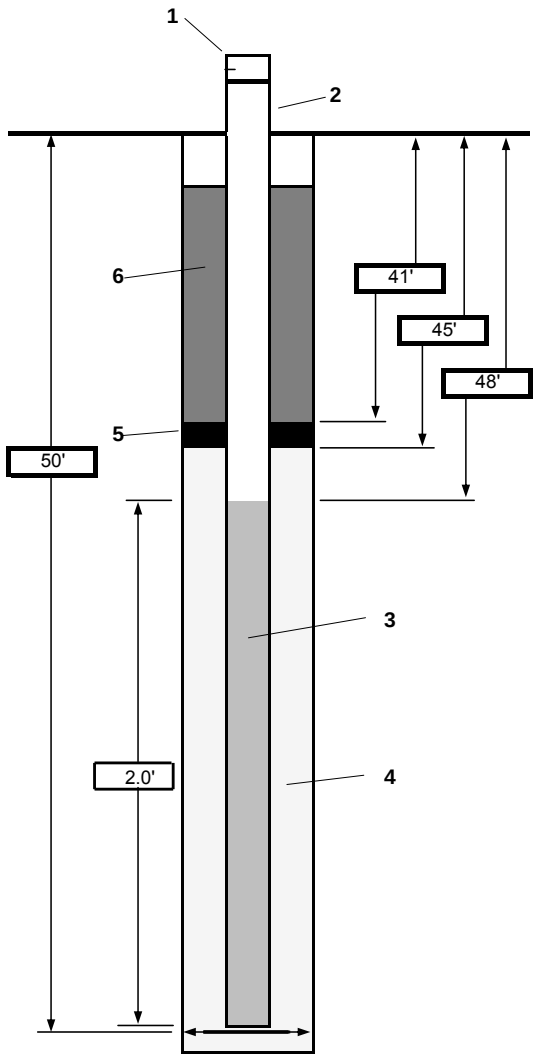
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/14/2004 END : 7/14/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-17	SHEET 1	OF 1

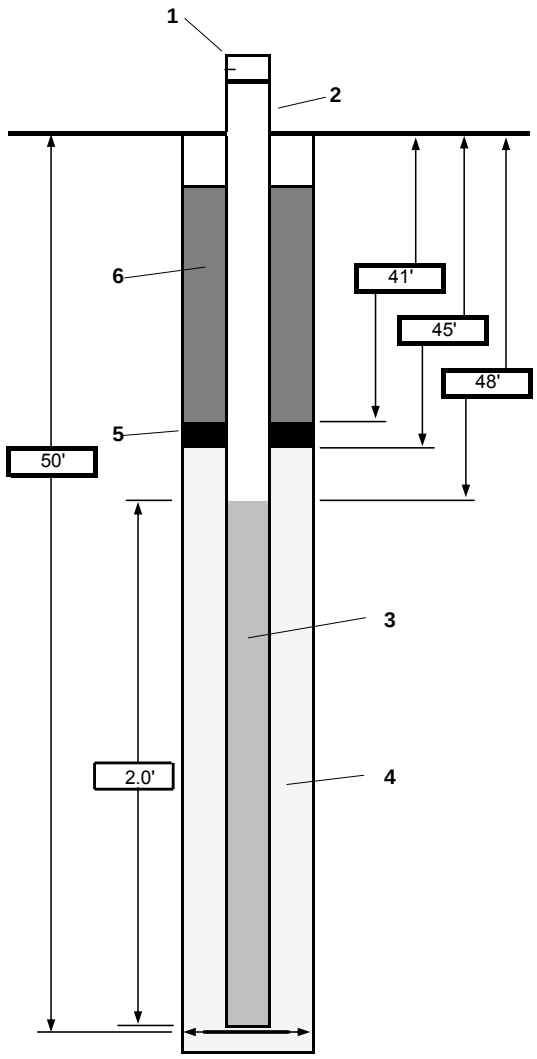
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/14/2004 END : 7/14/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-18	SHEET 1	OF 1

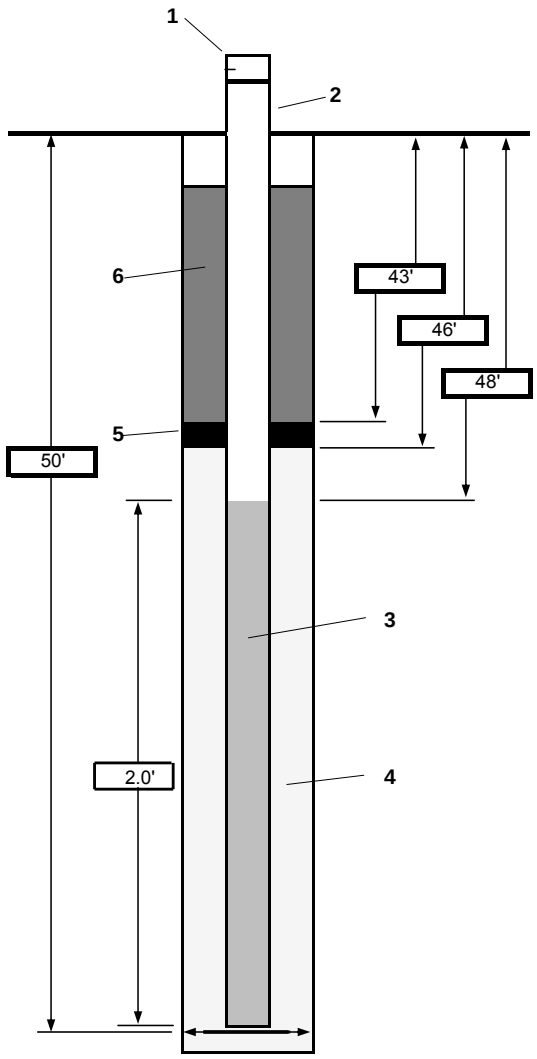
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/09/2004 END : 7/09/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-19	SHEET 1	OF 1

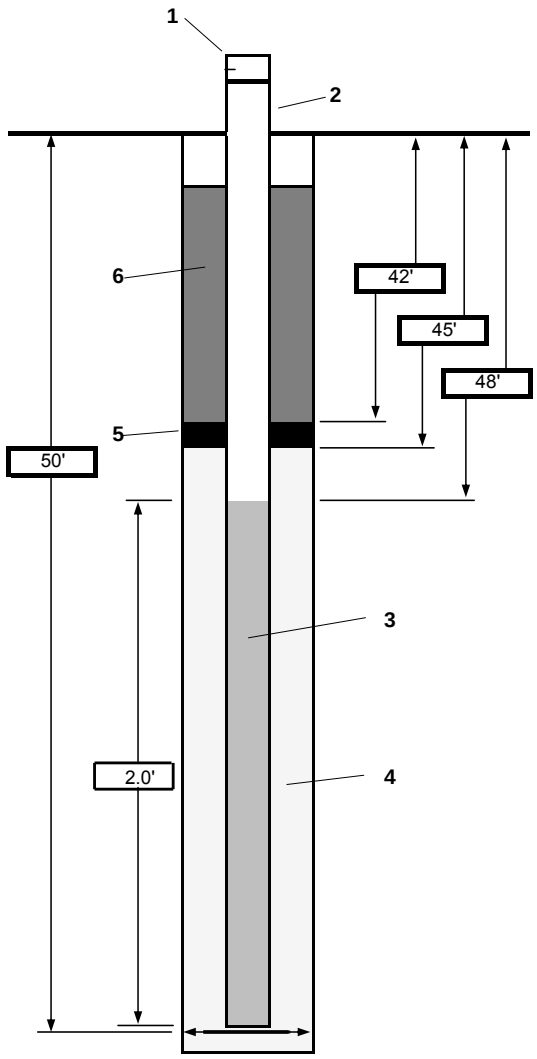
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/09/2004 END : 7/09/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-20	SHEET 1	OF 1

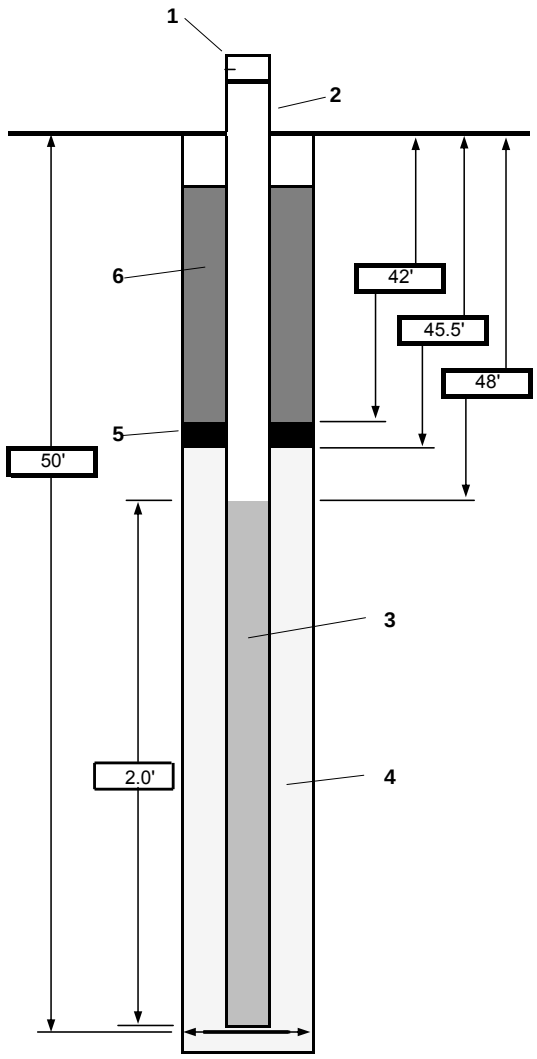
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 7/08/2004 END : 7/8/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-21	SHEET 1	OF 1

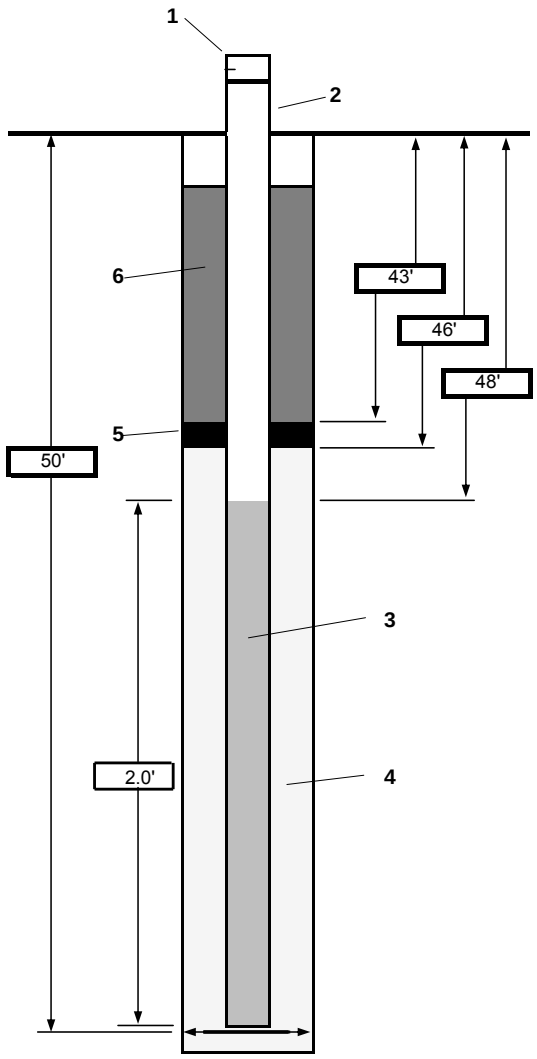
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/28/2004 END : 6/28/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BS-22	SHEET 1	OF 1

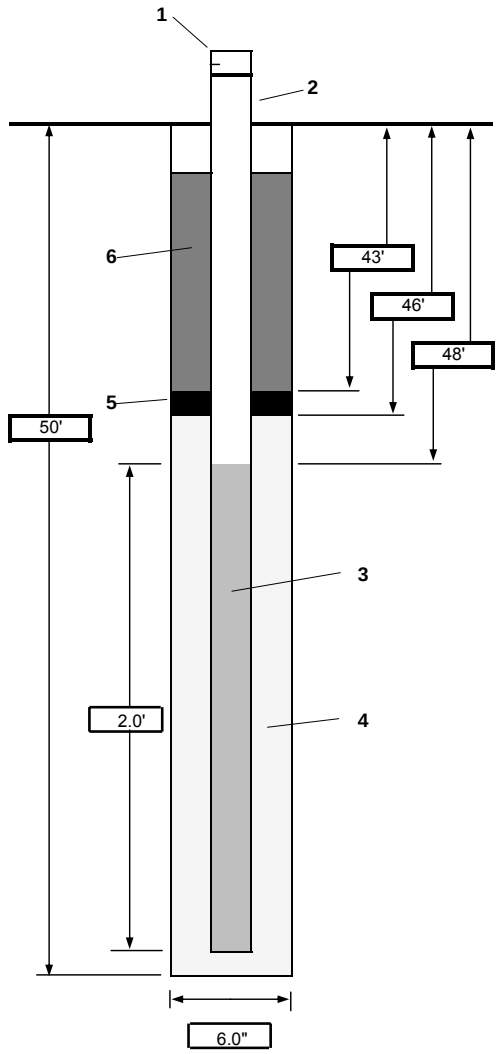
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START : 6/30/2004 END : 6/30/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-01	SHEET 1	OF 1

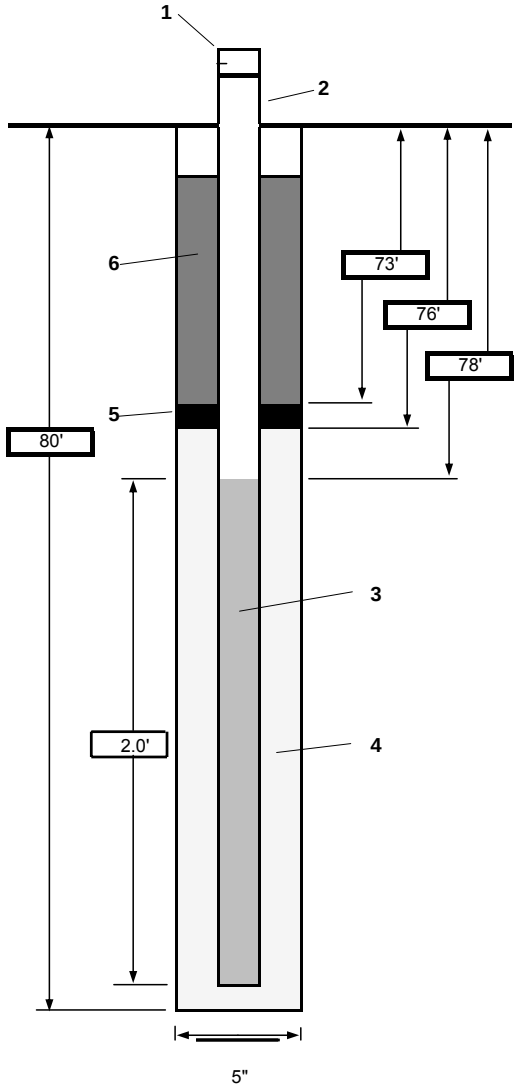
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-02	SHEET 1	OF 1

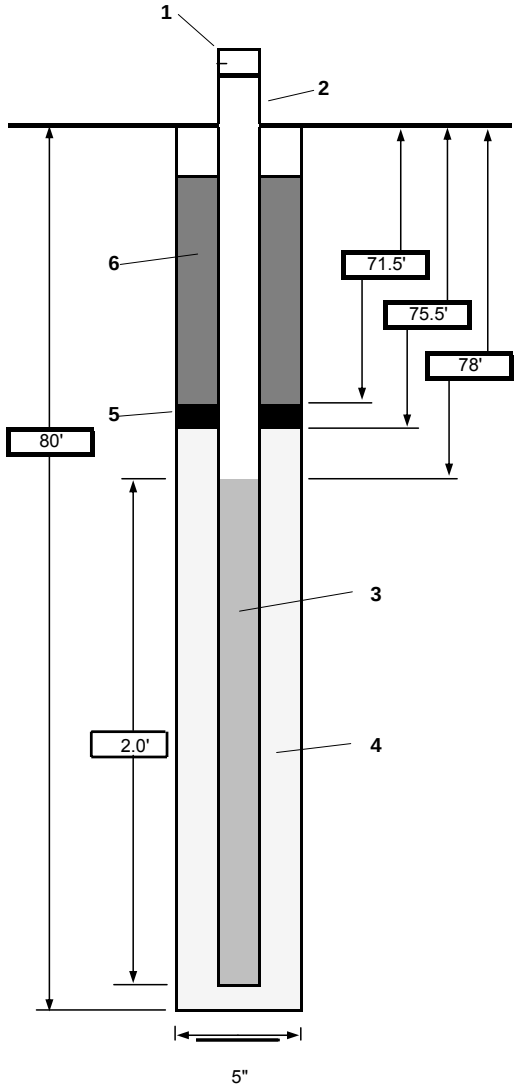
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/25/2004 — END: 6/25/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
##	BD-03	SHEET 1	OF 1

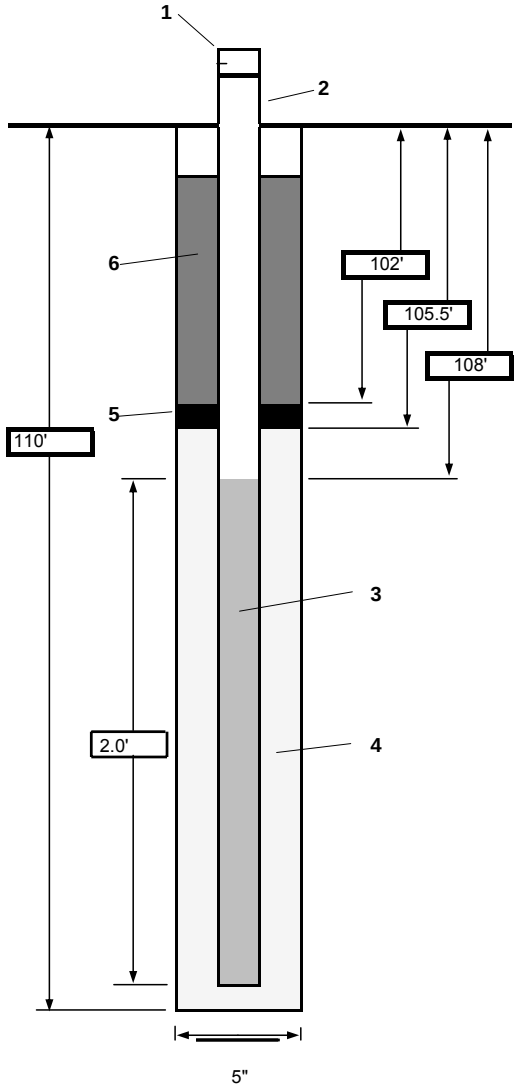
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 6/28/2004 END: 6/28/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-04	SHEET 1	OF 1

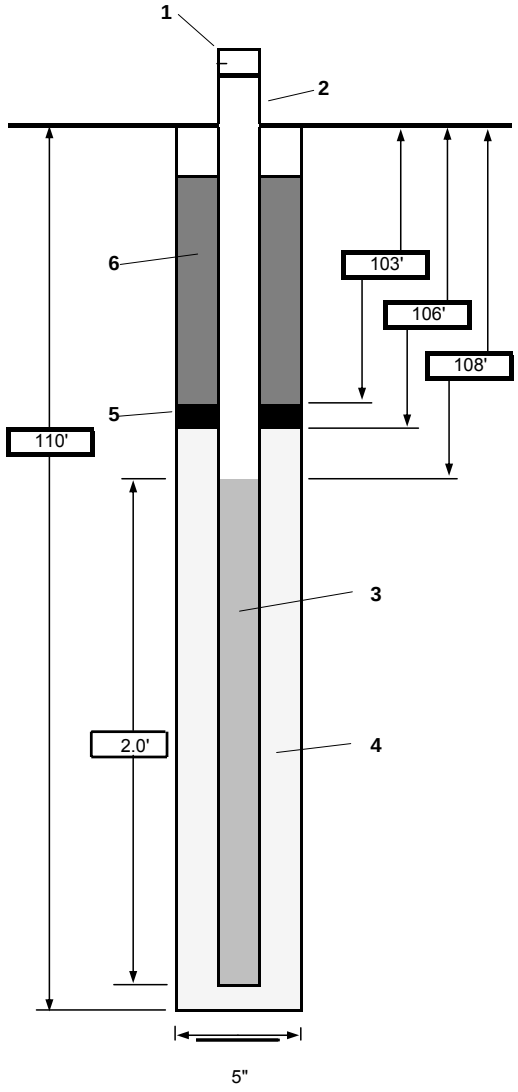
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/30/2004 — END: 6/30/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-05	SHEET 1	OF 1

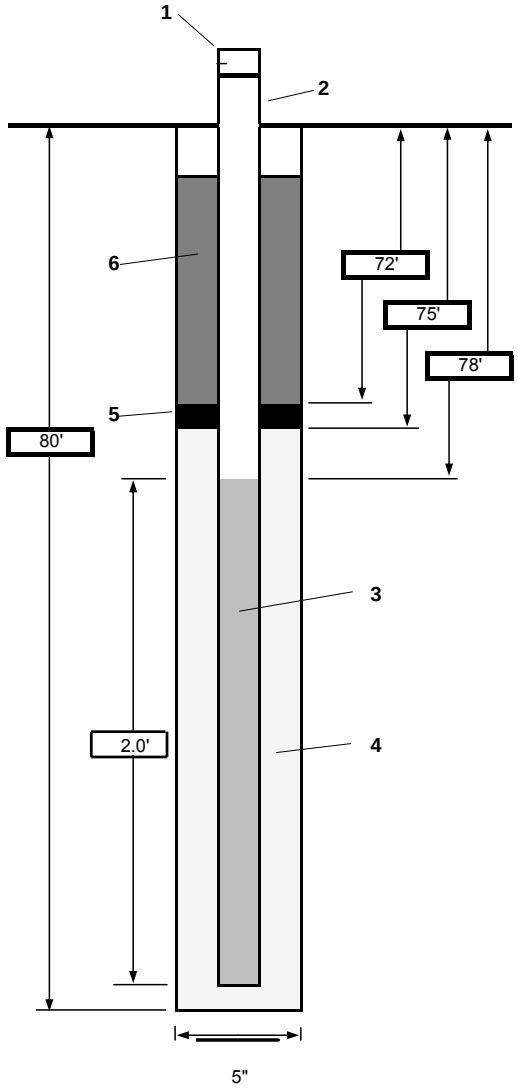
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-06	SHEET 1	OF 1

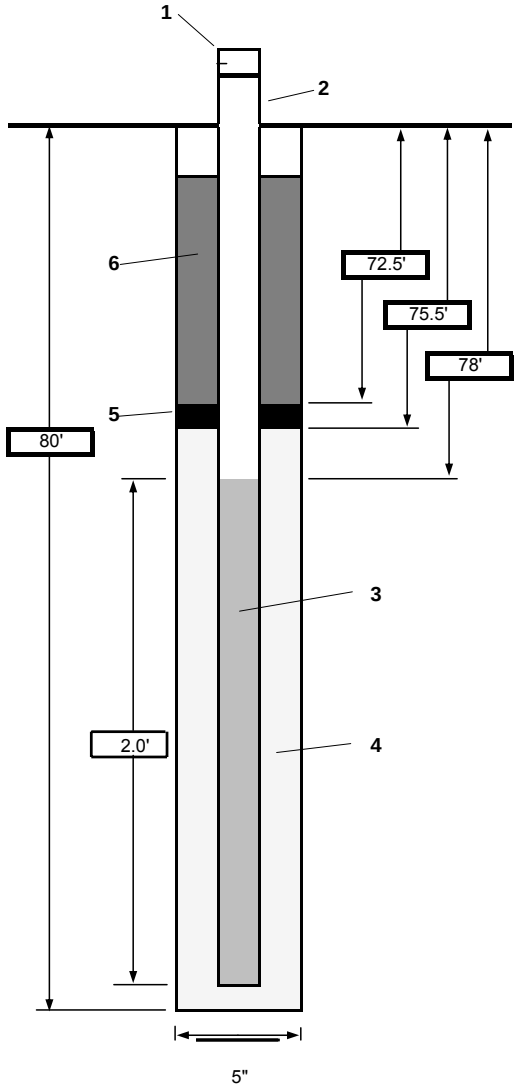
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/25/2004 — END: 6/25/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-07	SHEET 1	OF 1

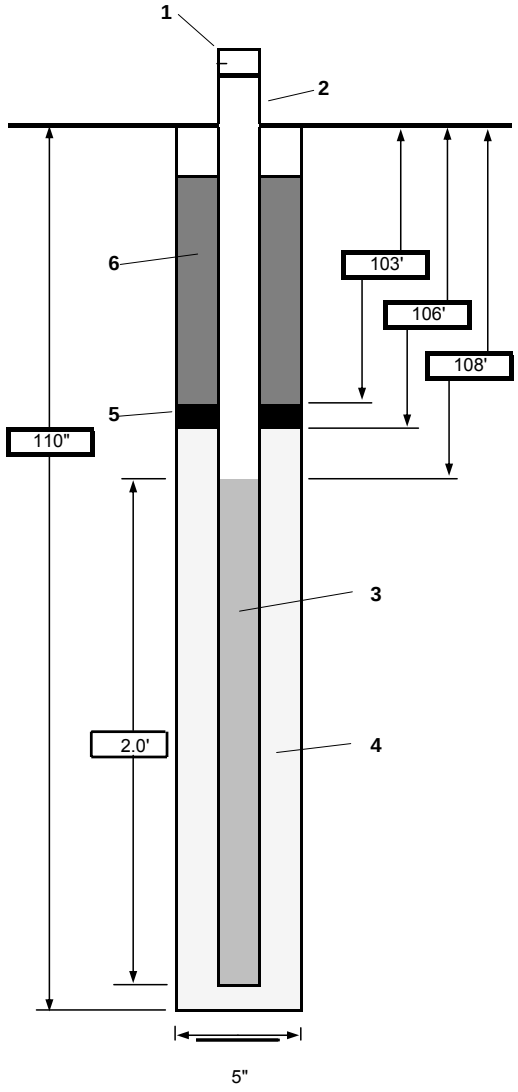
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/28/2004 — END: 6/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-08	SHEET 1	OF 1

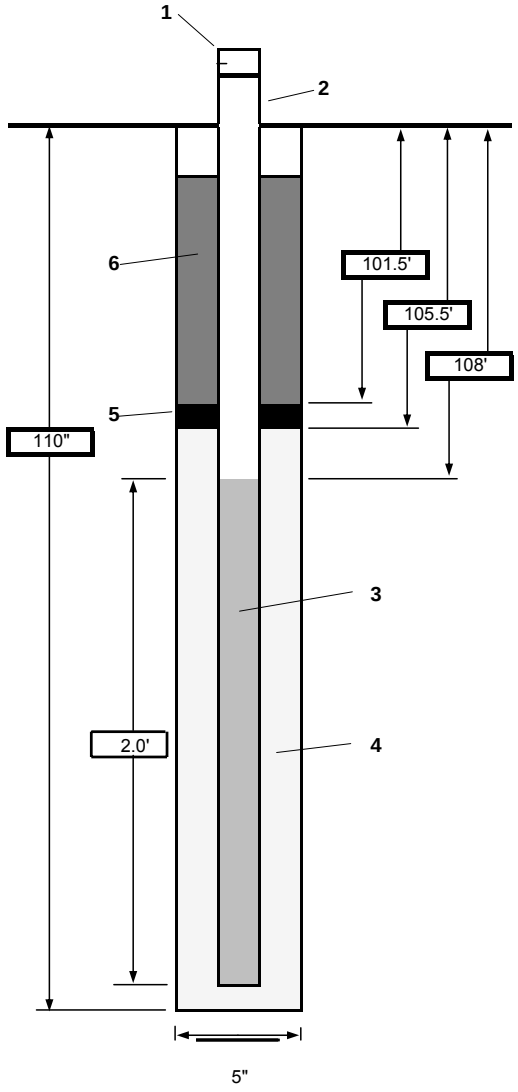
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/06/2004 — END: 7/06/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-09	SHEET 1	OF 1

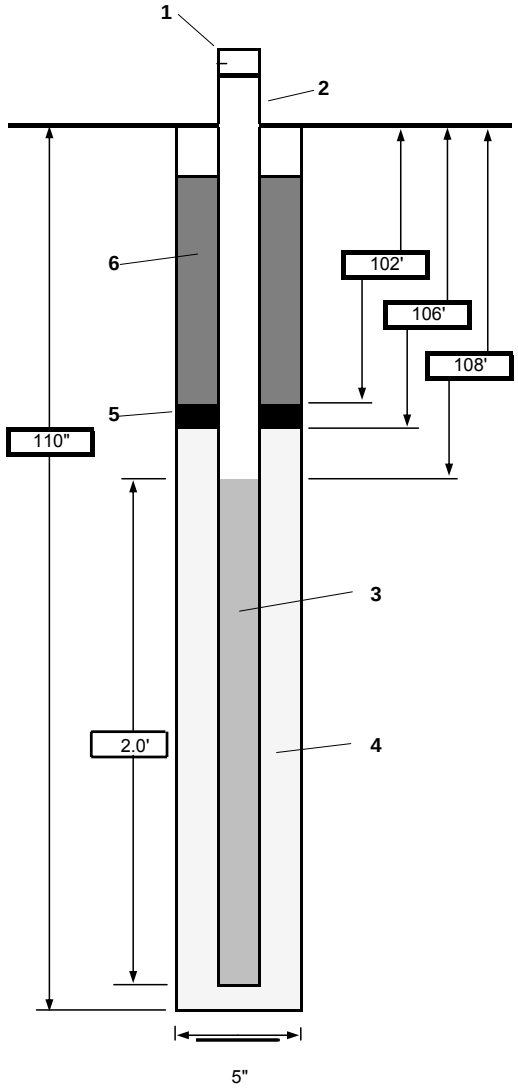
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/08/2004 END: 7/08/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-10	SHEET 1	OF 1

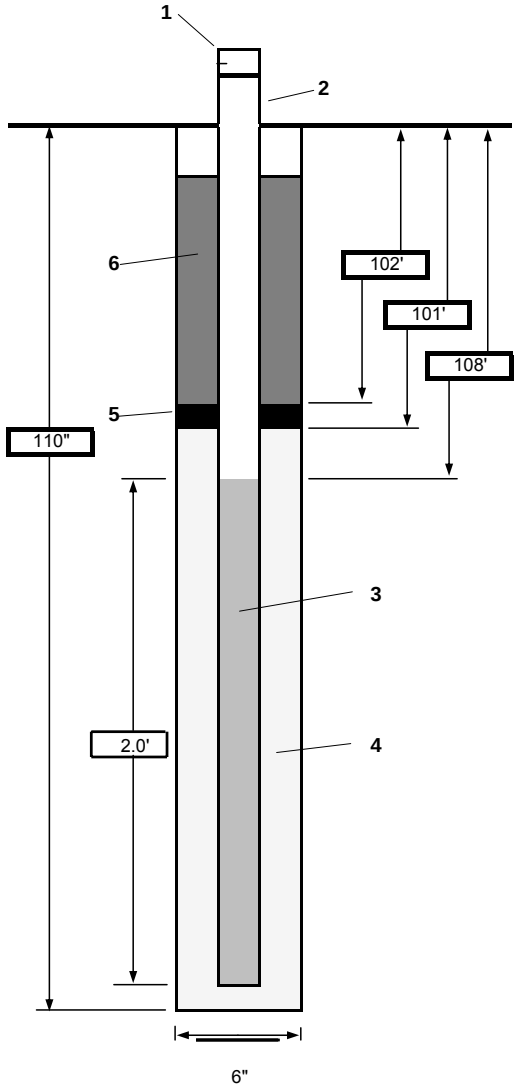
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/10/2004 END: 7/10/2004 LOGGER : Darryl Gates



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	BD-11	SHEET 1 OF 1

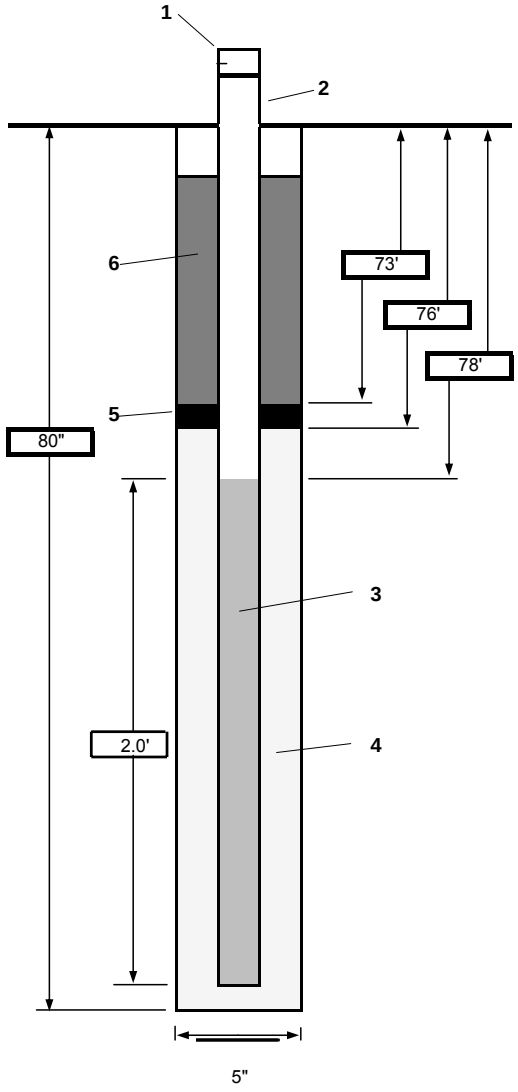
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 6/24/2004 END: 6/24/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-12	SHEET 1	OF 1

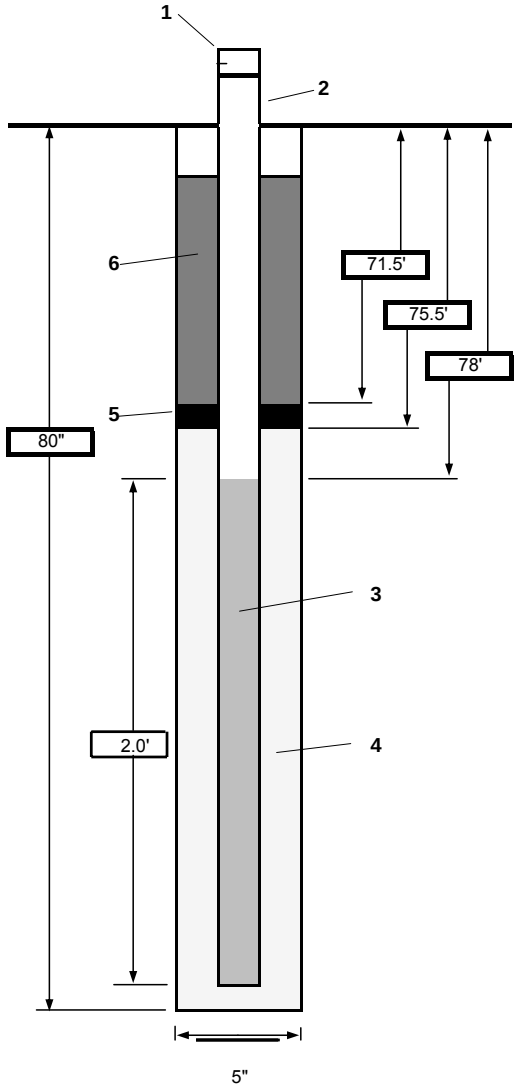
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 6/25/2004 END: 6/25/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-13	SHEET 1	OF 1

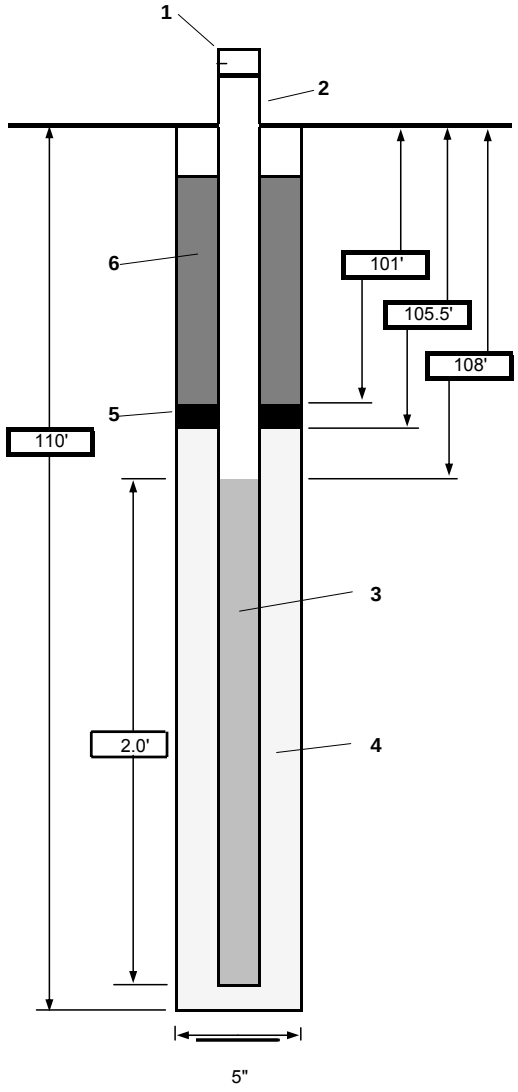
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/28/2004 — END: 6/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-14	SHEET 1	OF 1

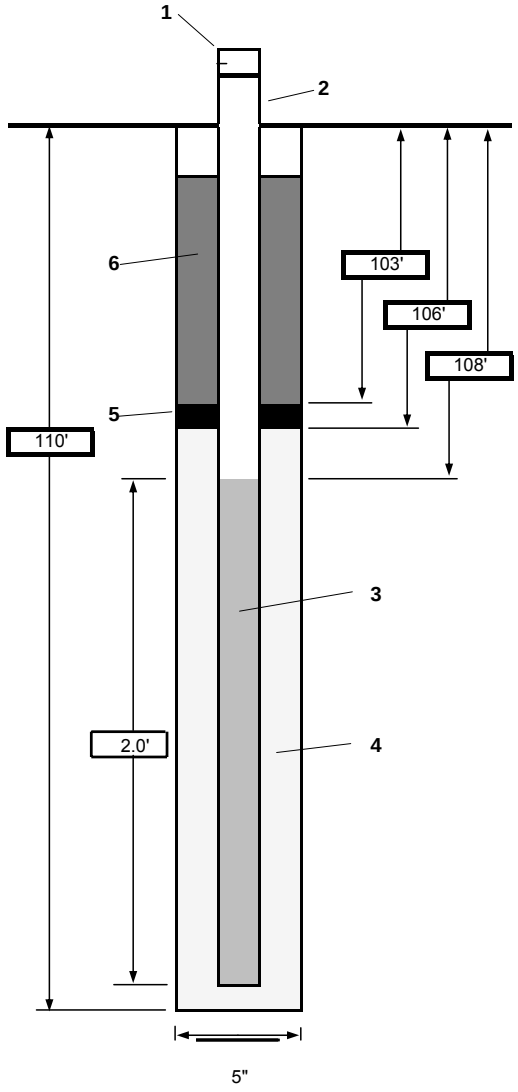
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/06/2004 END: 7/06/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-15	SHEET 1	OF 1

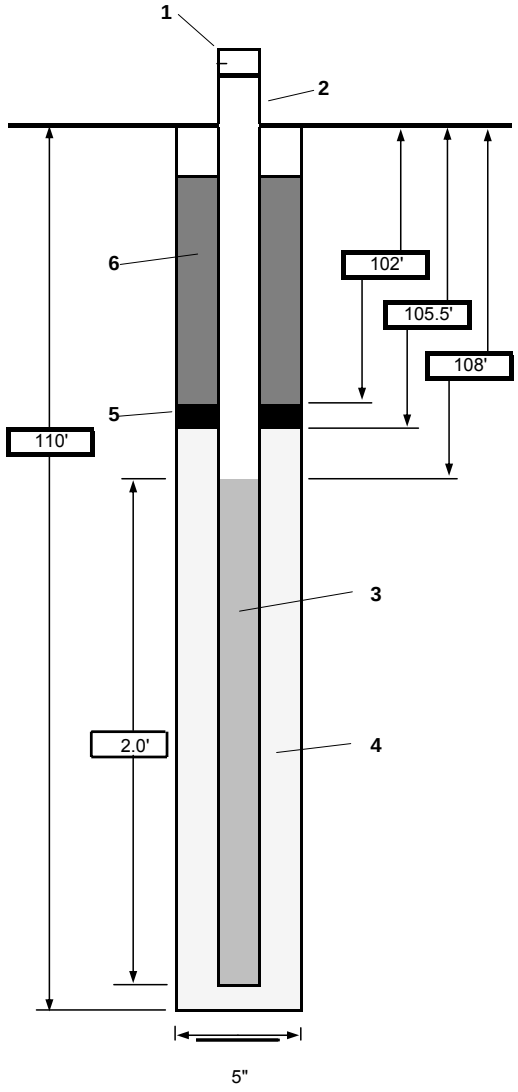
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/06/2004 — END: 7/06/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-16	SHEET 1	OF 1

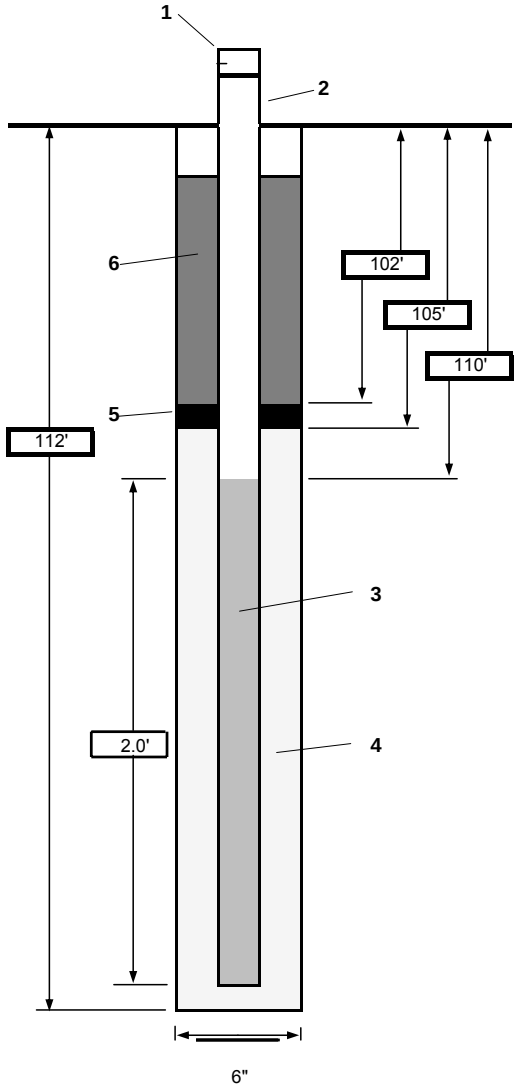
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/12/2004 END: 7/12/2004 LOGGER : Darryl Gates



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-17	SHEET 1	OF 1

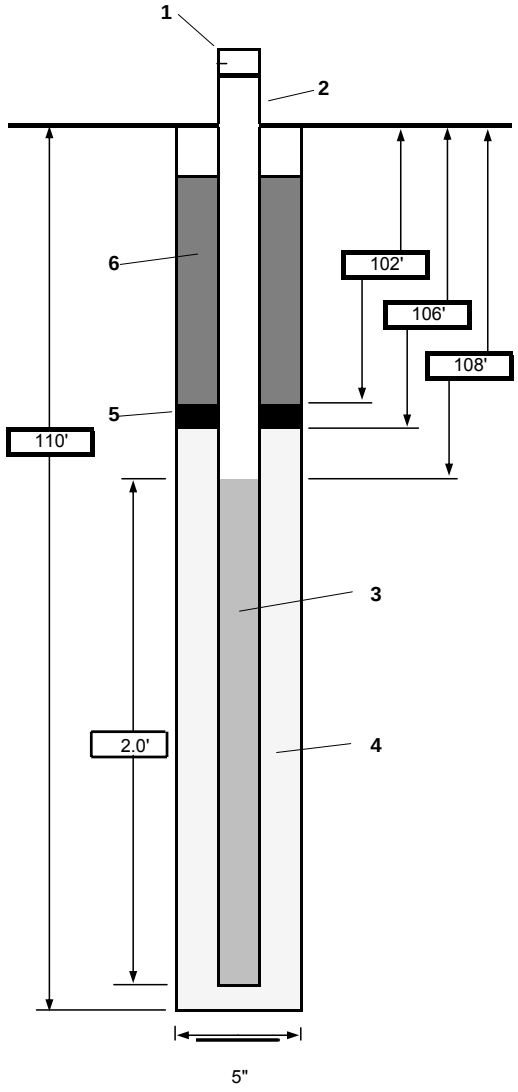
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/14/2004 END: 7/14/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-18	SHEET 1	OF 1

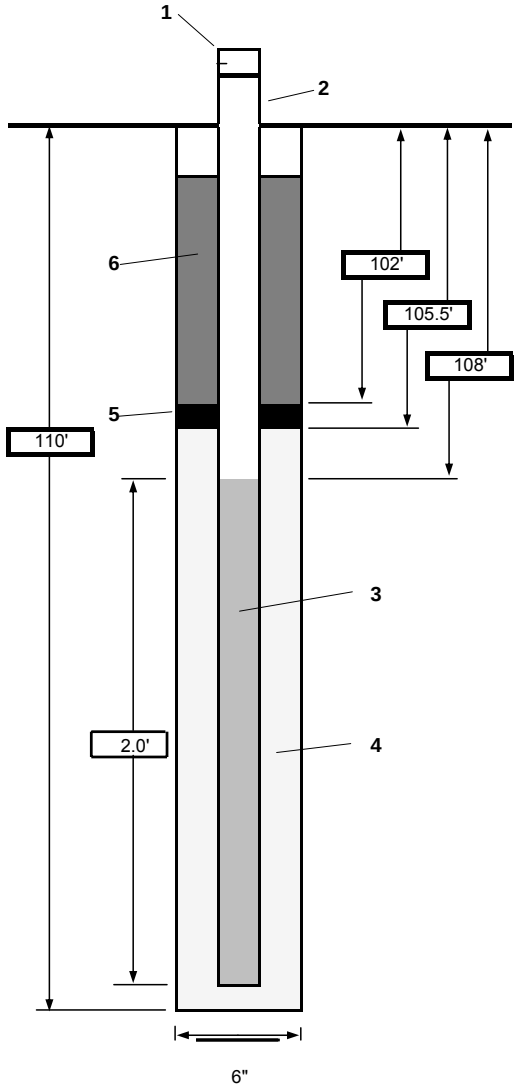
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/15/2004 — END: 7/15/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-19	SHEET 1	OF 1

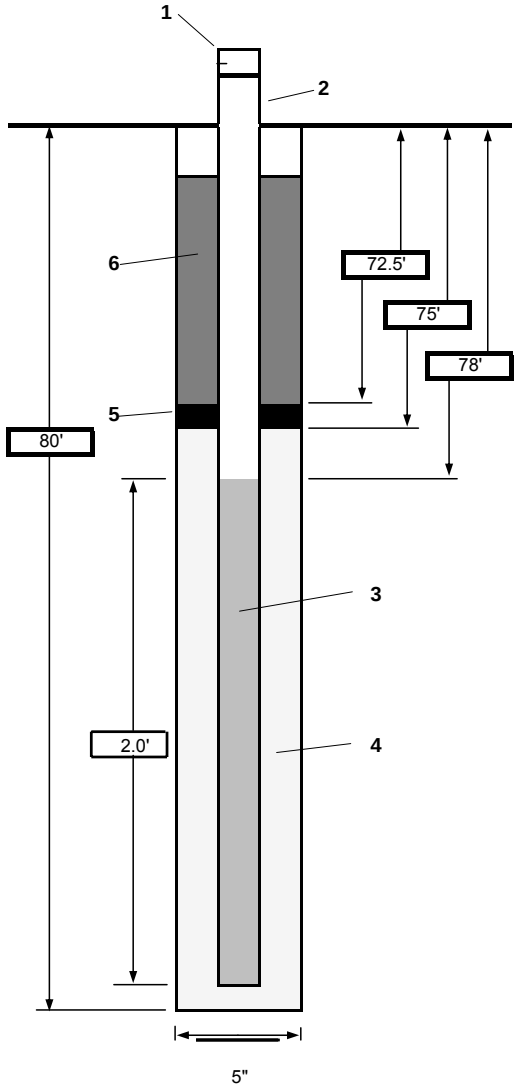
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 6/26/2004 END: 6/26/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-20	SHEET 1	OF 1

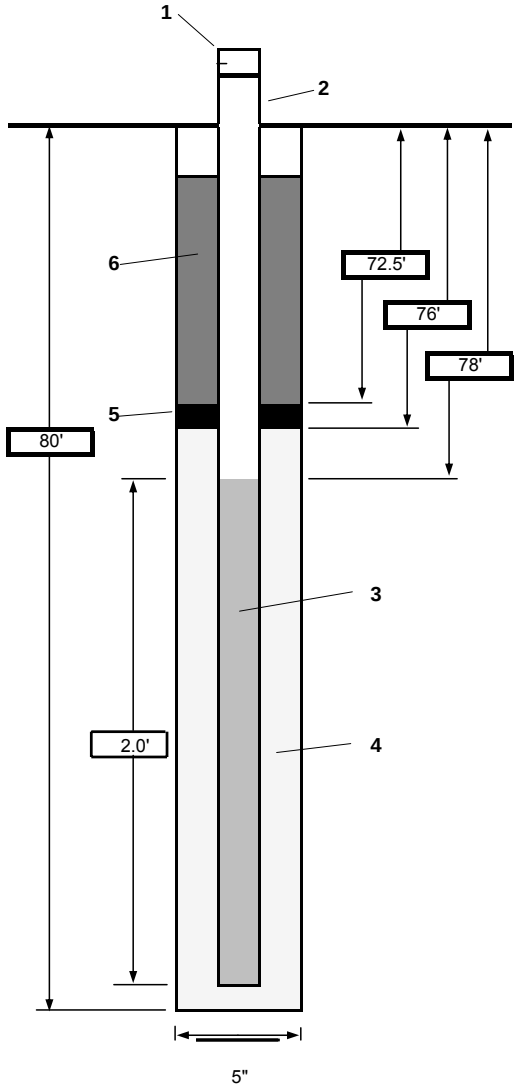
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/28/2004 — END: 6/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	BD-21	SHEET 1 OF 1

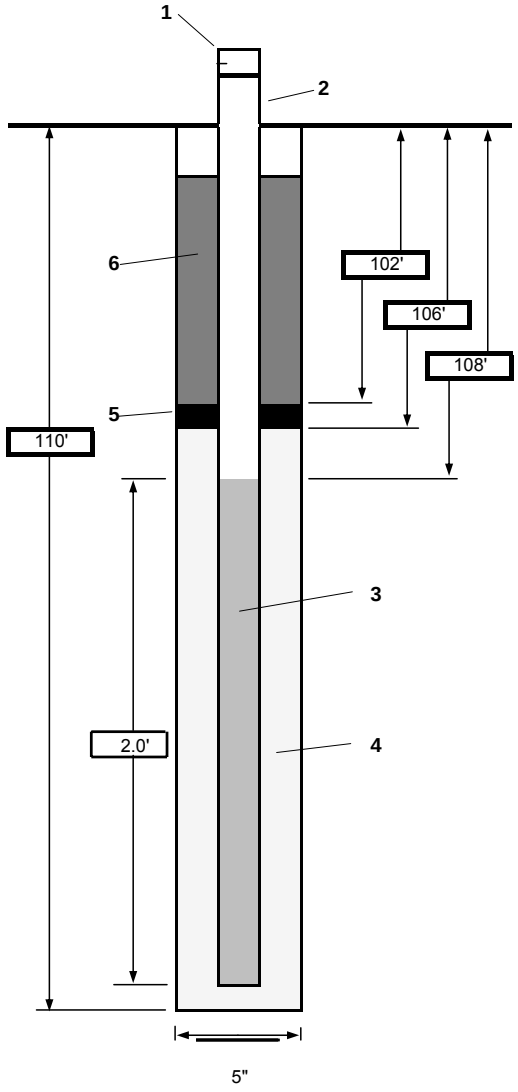
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/07/2004 END: 7/07/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-22	SHEET 1	OF 1

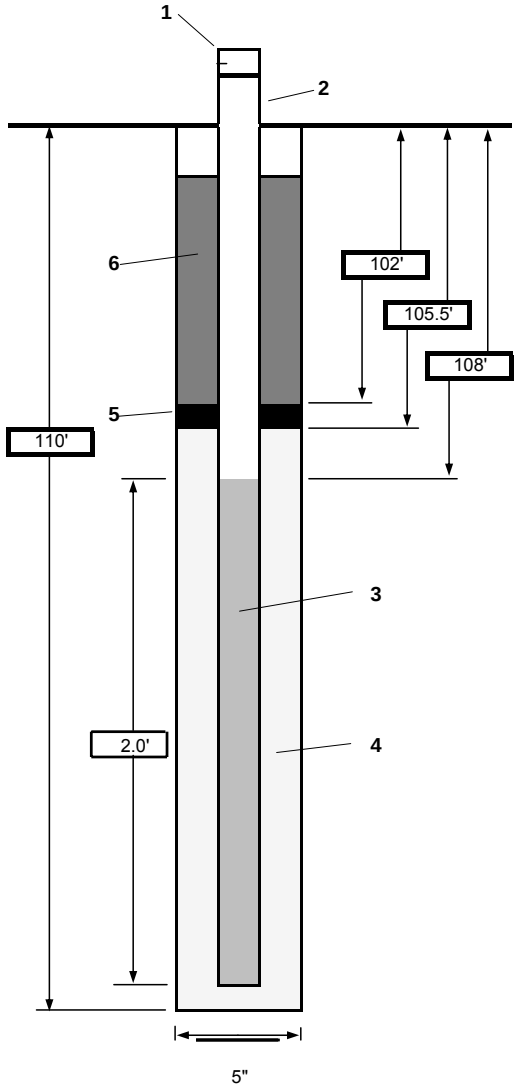
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/09/2004 — END: 7/09/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-23	SHEET 1	OF 1

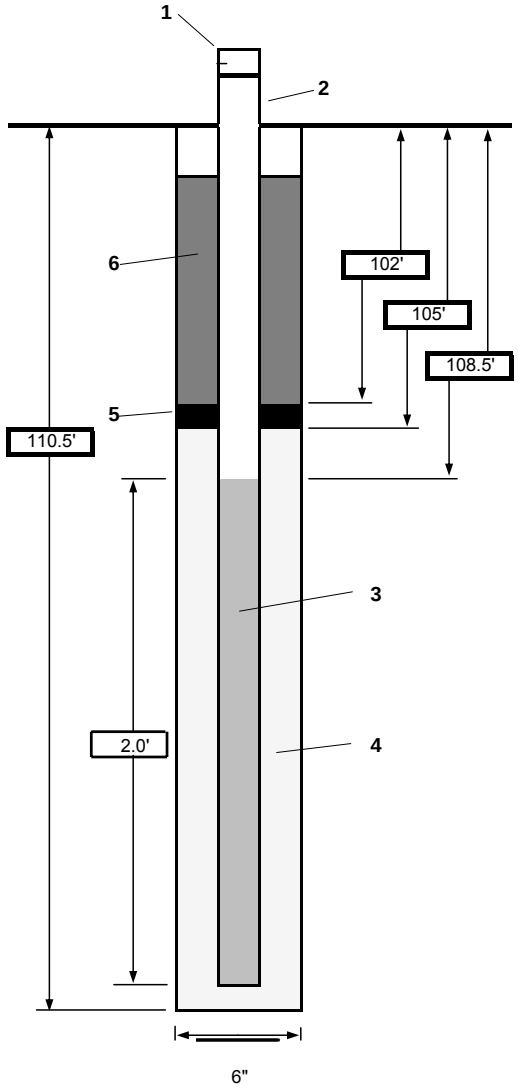
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/12/2004 — END: 7/12/2004 — LOGGER : Darryl Gates



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-24	SHEET 1	OF 1

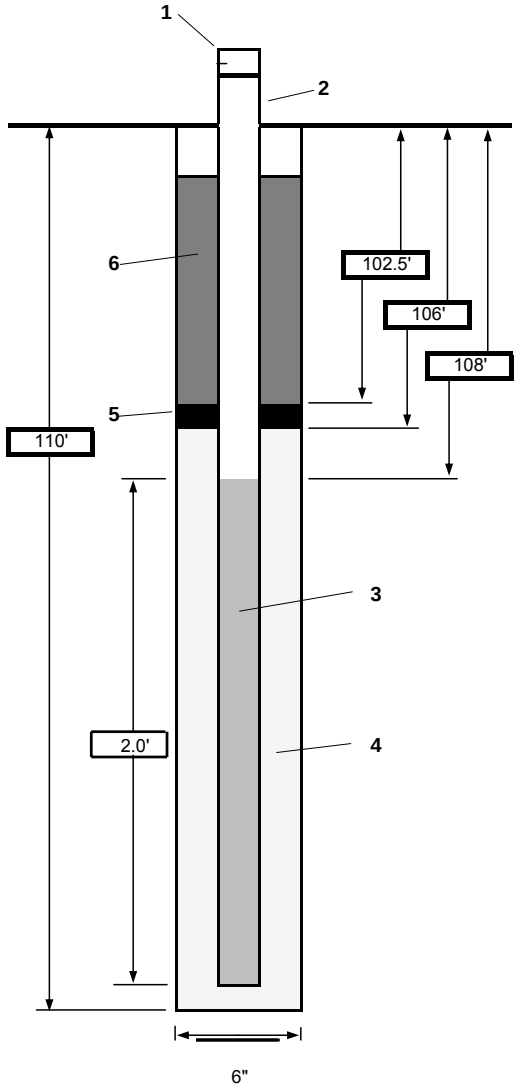
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/21/2004 — END: 7/21/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-25	SHEET 1	OF 1

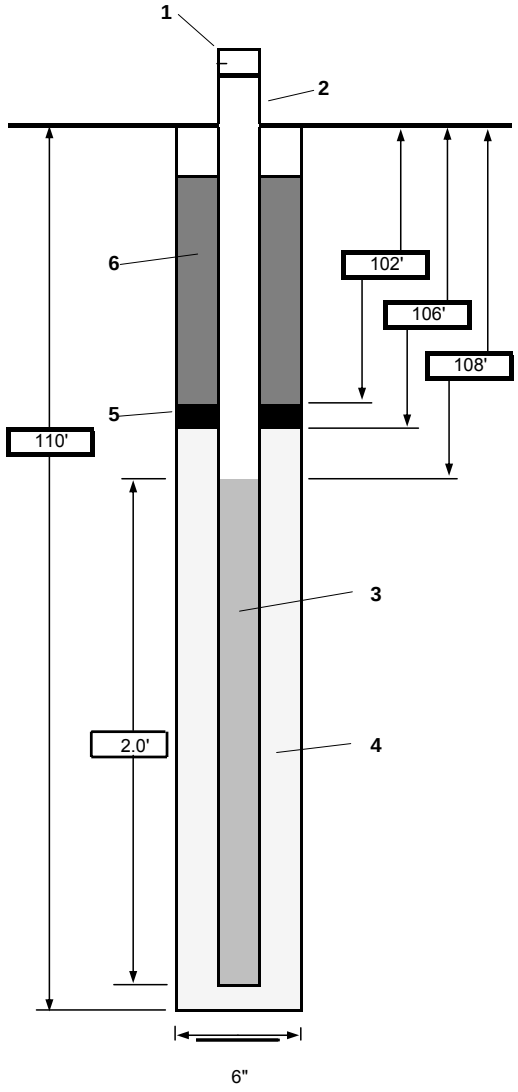
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/23/2004 — END: 7/23/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-26	SHEET 1	OF 1

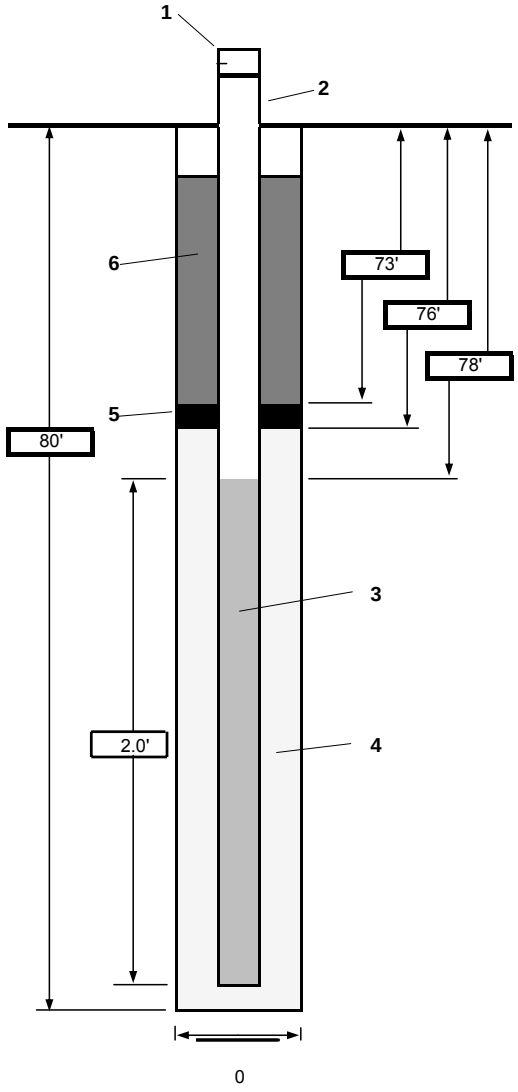
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 6/29/2004 END: 6/29/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-27	SHEET 1	OF 1

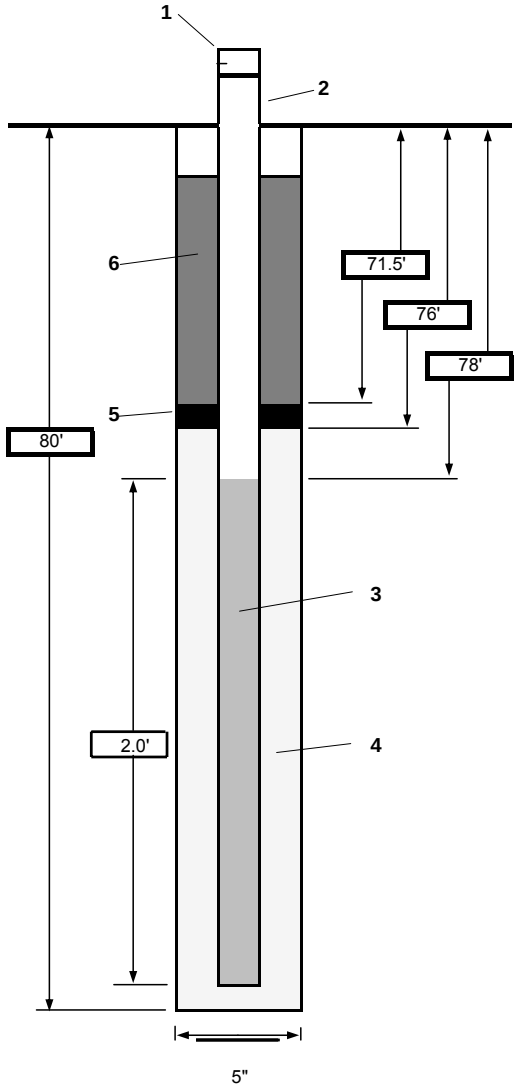
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/07/2004 — END: 7/07/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-28	SHEET 1	OF 1

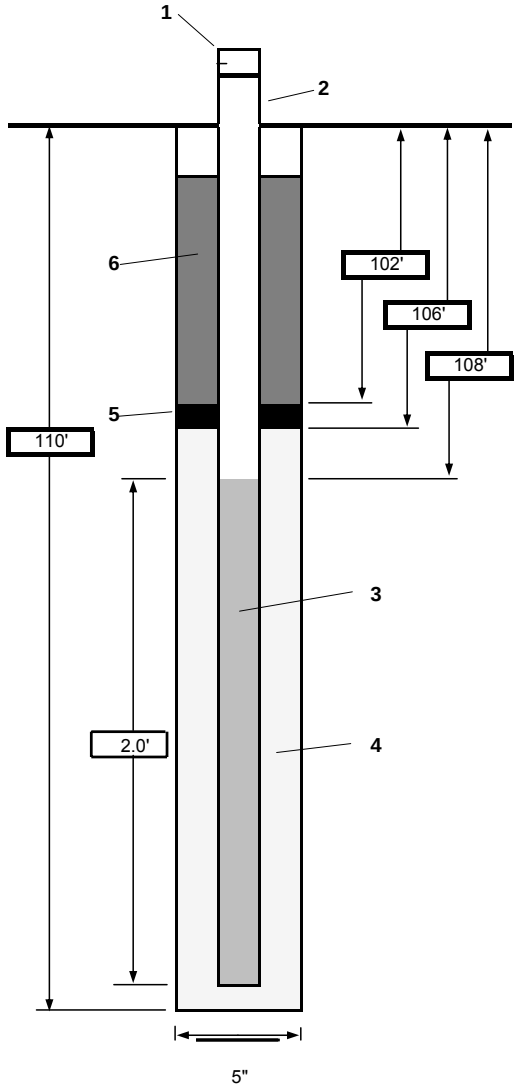
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/09/2004 — END: 7/09/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-29	SHEET 1	OF 1

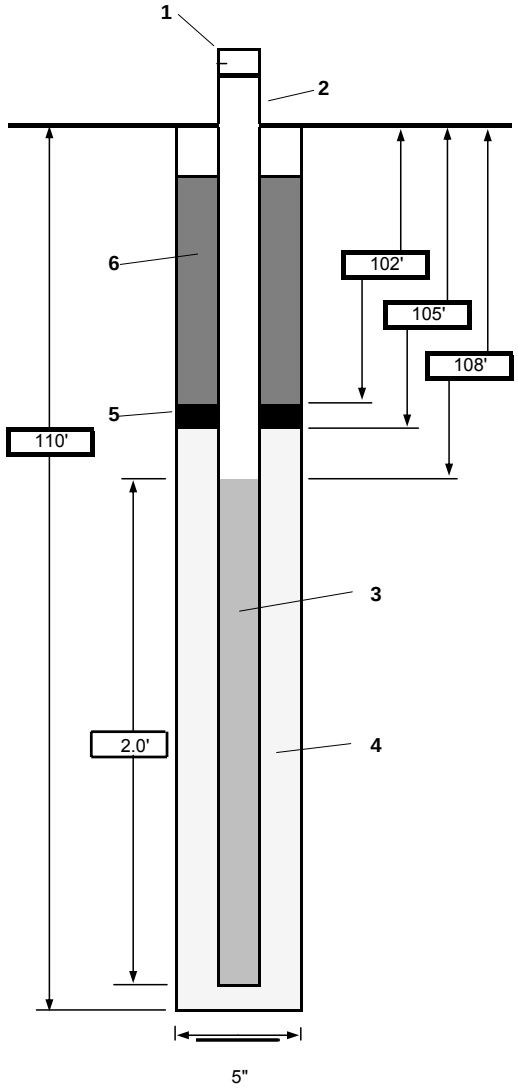
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/10/2004 END: 7/10/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-30	SHEET 1	OF 1

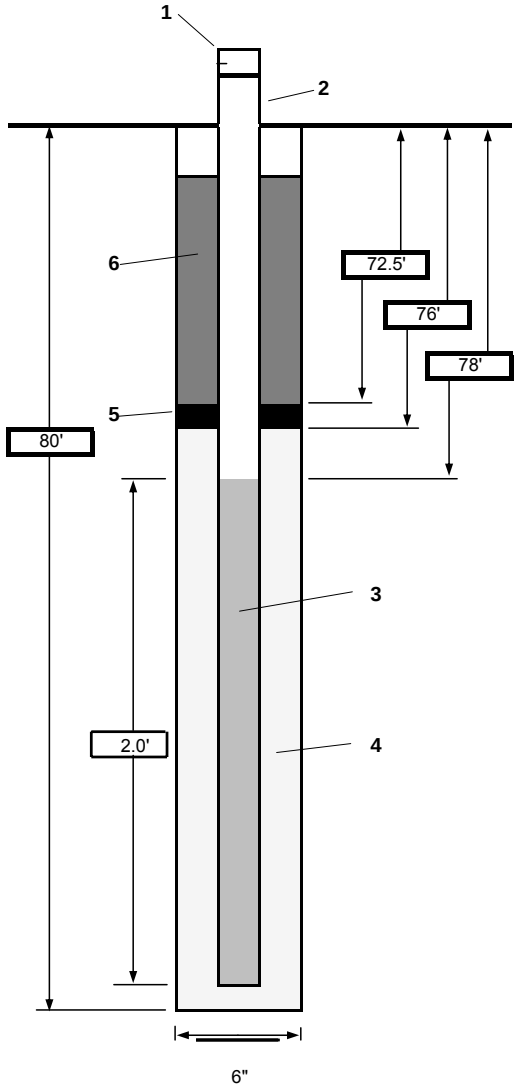
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/26/2004 — END: 7/26/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-31	SHEET 1	OF 1

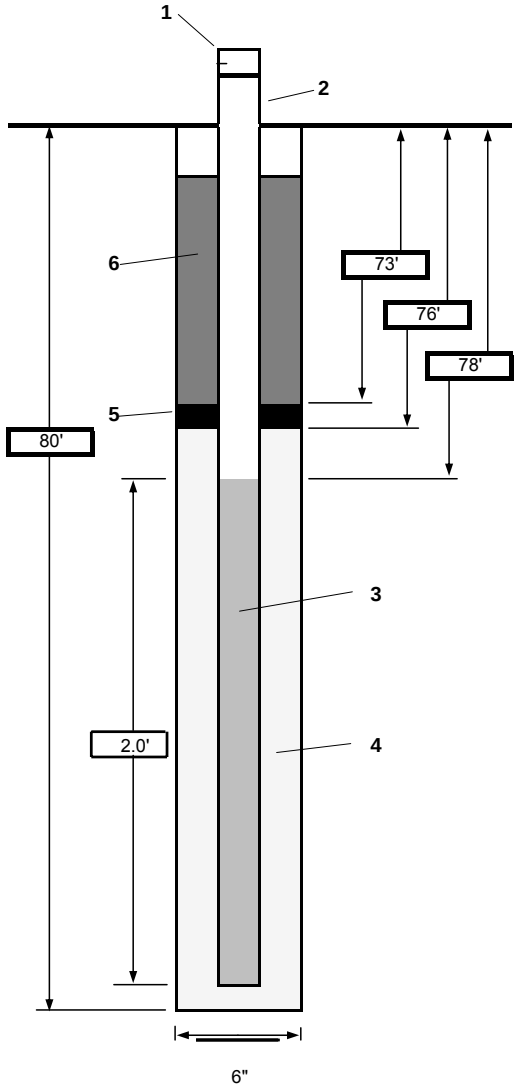
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/27/2004 END: 7/27/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-32	SHEET 1	OF 1

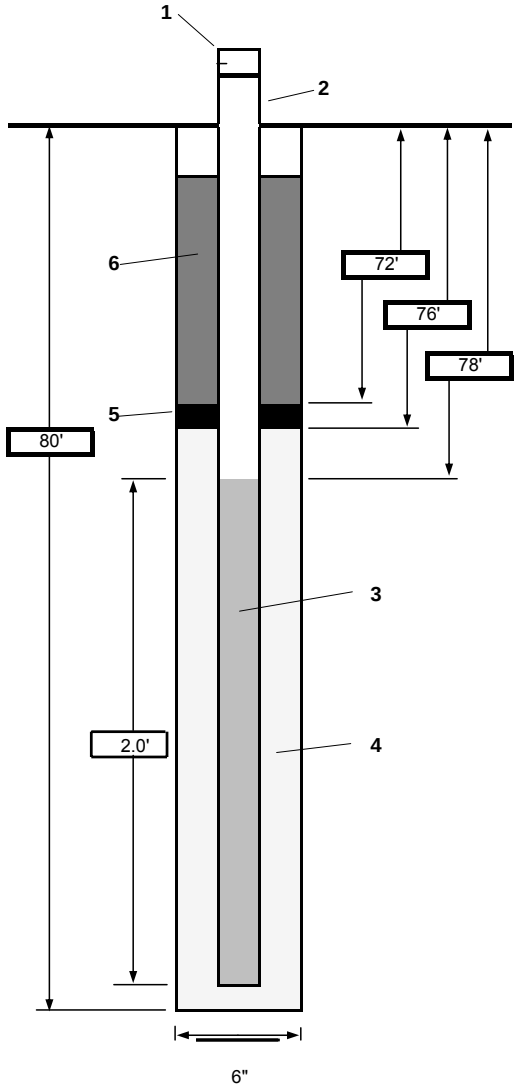
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/30/2004 — END: 6/30/2004 — LOGGER : Darryl Gates



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-33	SHEET 1	OF 1

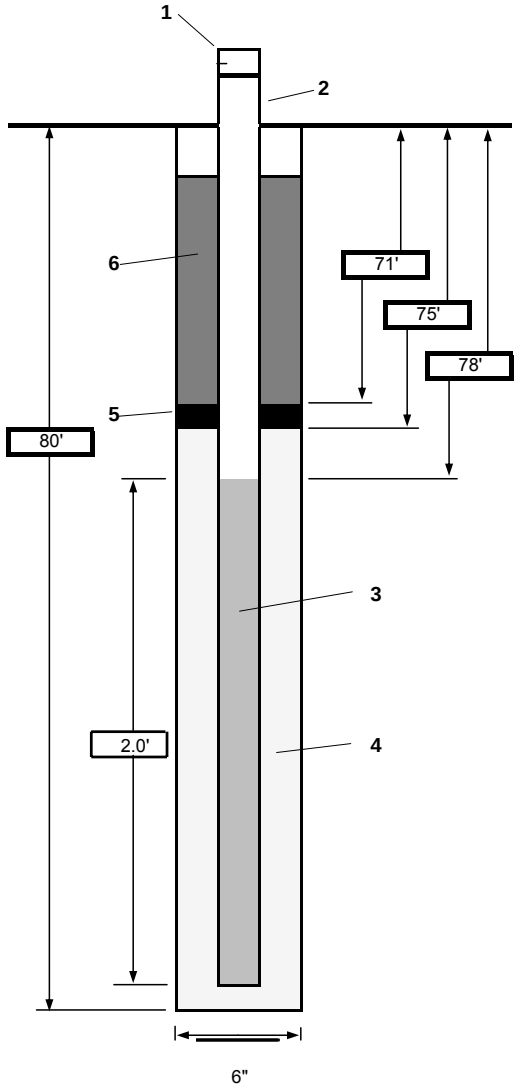
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/08/2004 END: 7/08/2004 LOGGER : Darryl Gates



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-34	SHEET 1	OF 1

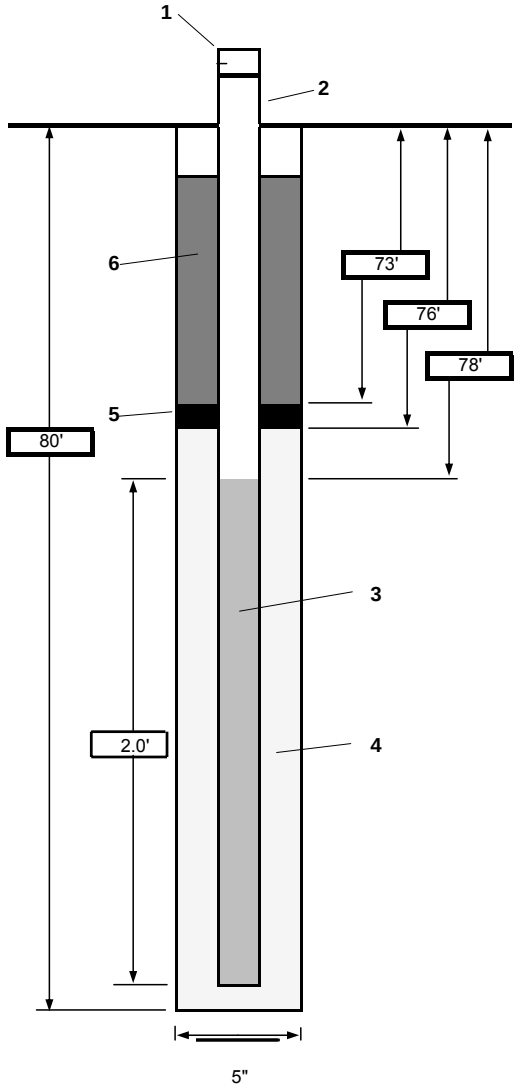
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/10/2004 END: 7/10/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-35	SHEET 1	OF 1

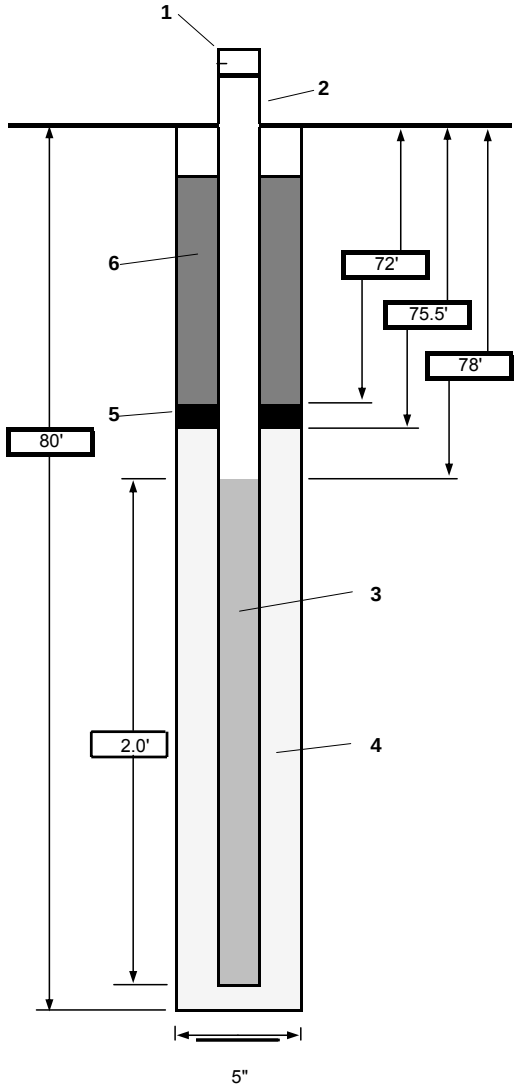
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/13/2004 — END: 7/13/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-36	SHEET 1	OF 1

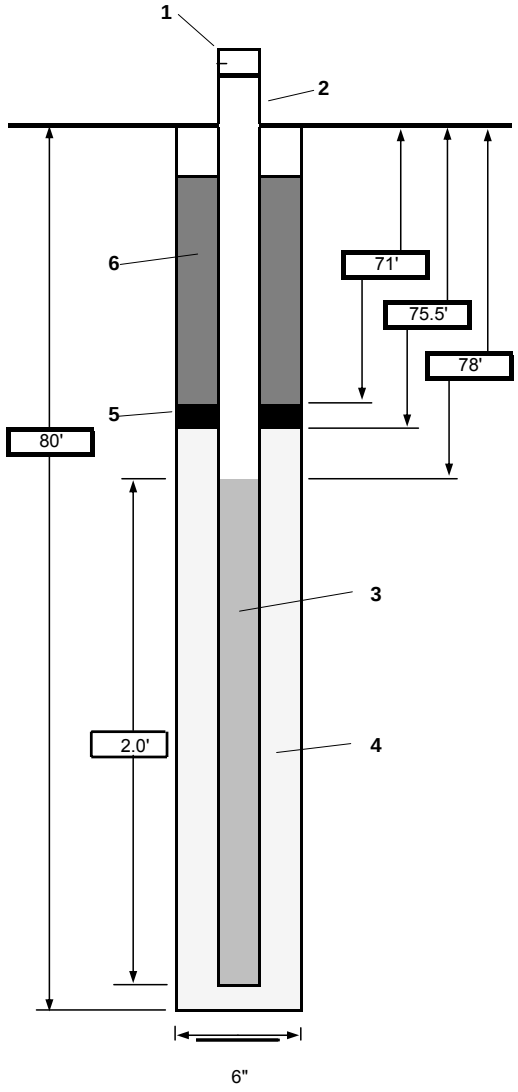
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/27/2004 — END: 7/27/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-37	SHEET 1	OF 1

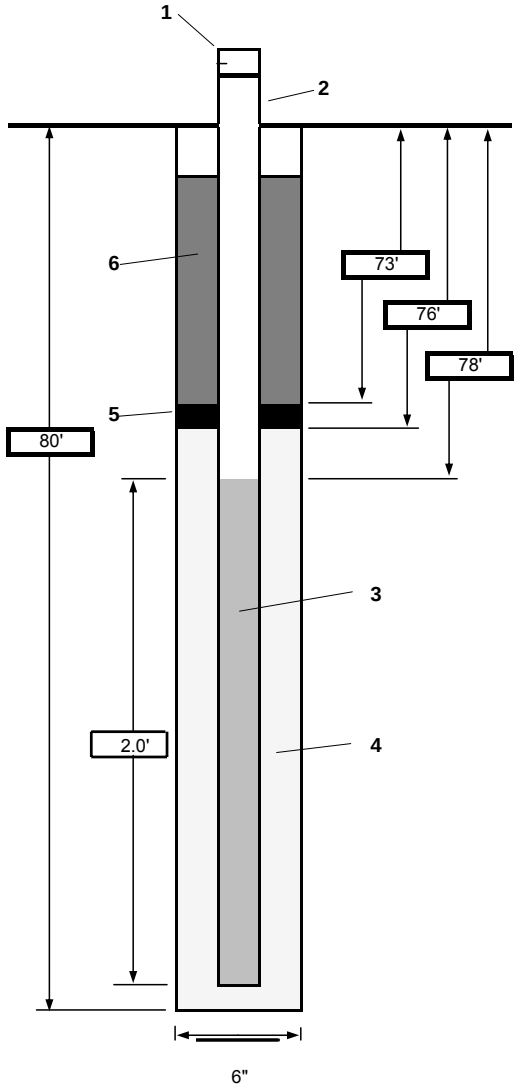
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/29/2004 — END: 7/29/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-38	SHEET 1	OF 1

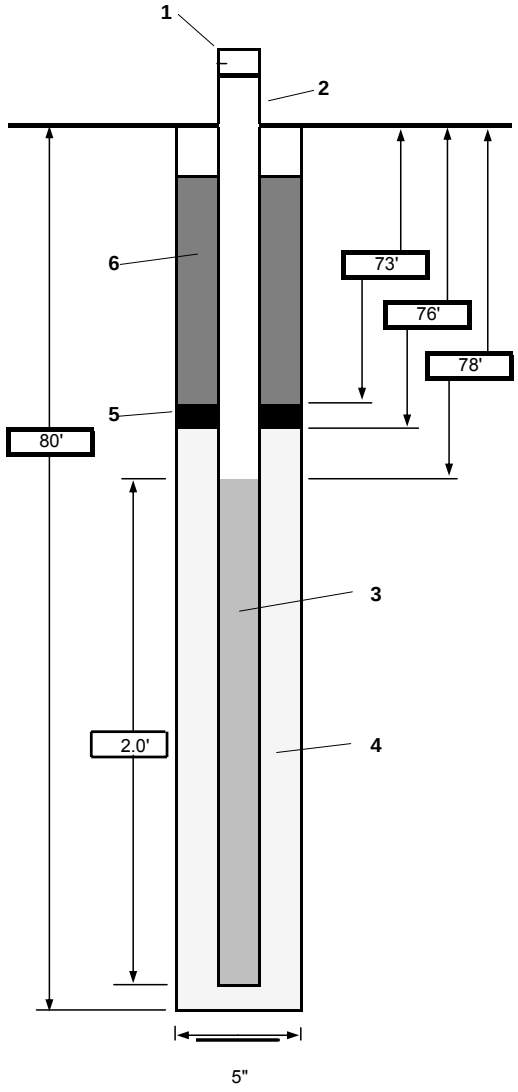
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/12/2004 — END: 7/12/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-39	SHEET 1	OF 1

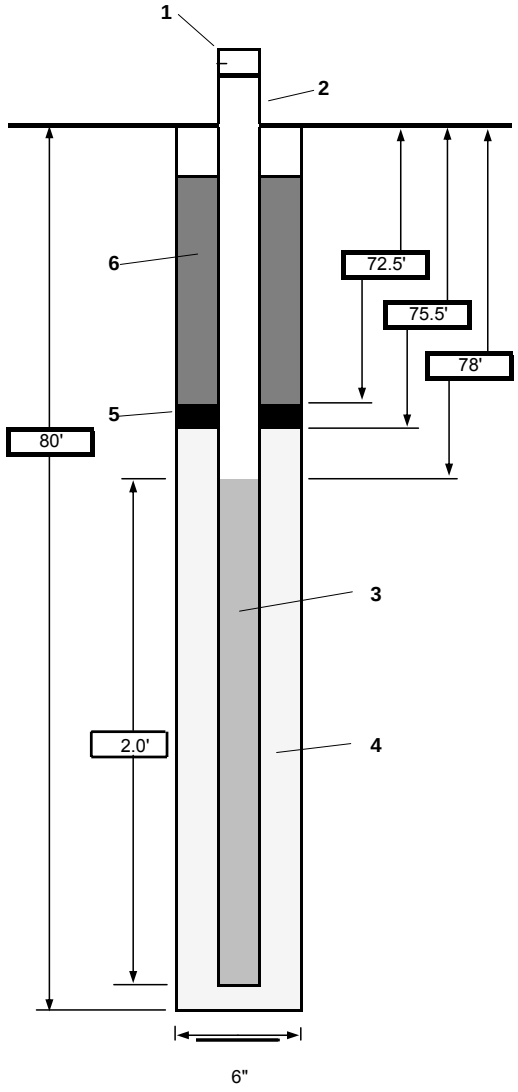
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/13/2004 END: 7/13/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-40	SHEET 1	OF 1

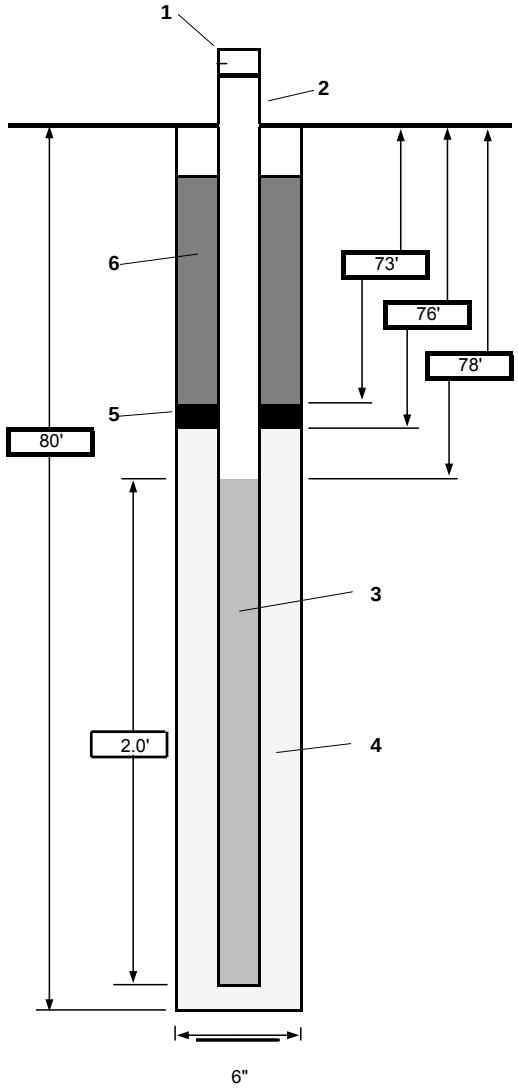
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/20/2004 — END: 7/20/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-41	SHEET 1	OF 1

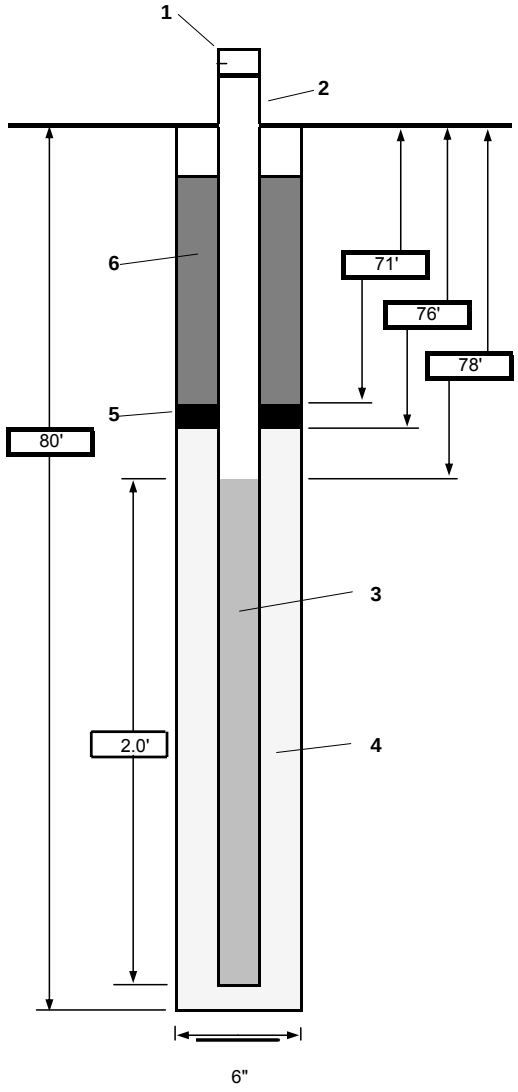
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/28/2004 END: 7/28/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-42	SHEET 1	OF 1

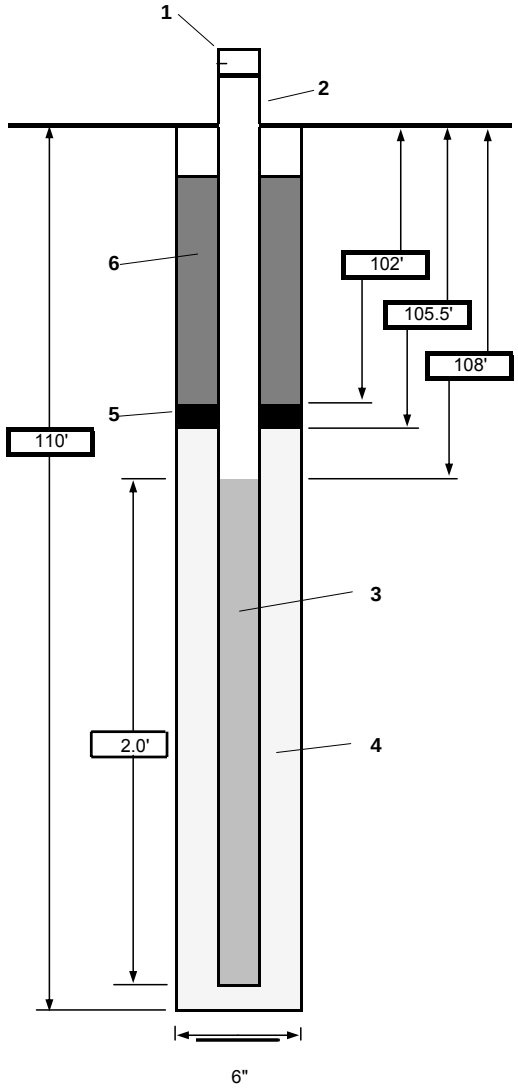
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/04/2004 END: 8/04/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-43	SHEET 1	OF 1

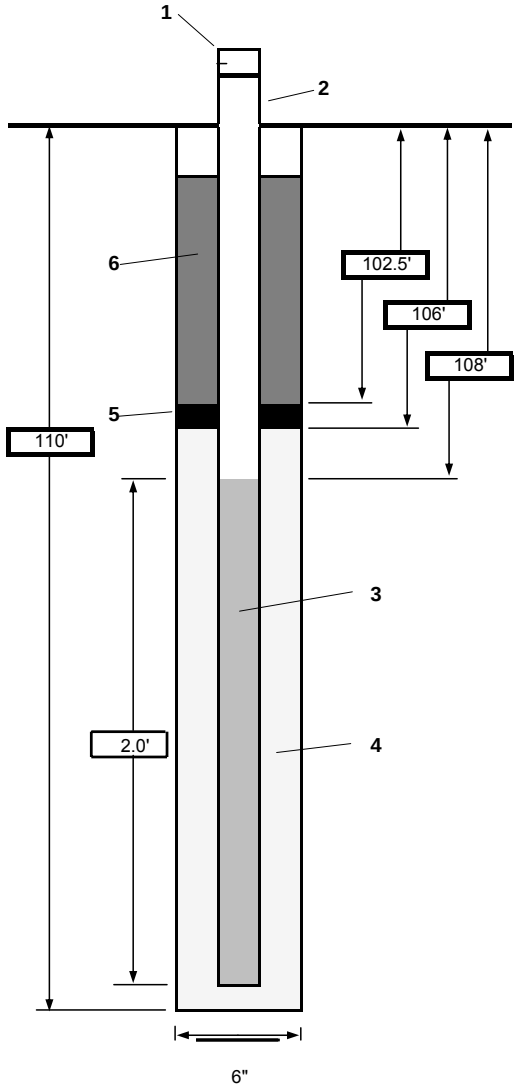
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/03/2004 END: 8/03/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-44	SHEET 1	OF 1

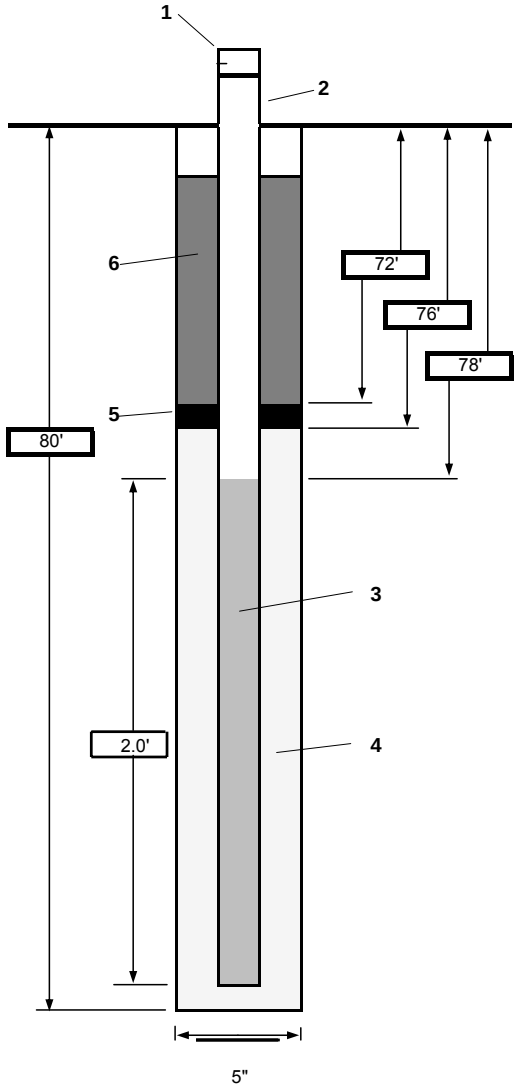
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/12/2004 END: 7/12/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-45	SHEET 1	OF 1

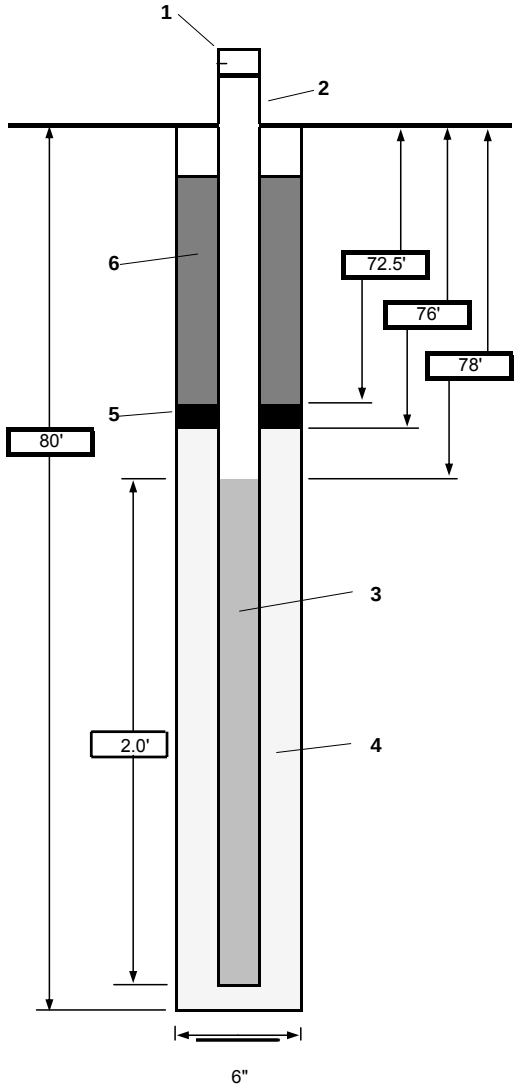
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/20/2004 END: 7/20/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-46	SHEET 1	OF 1

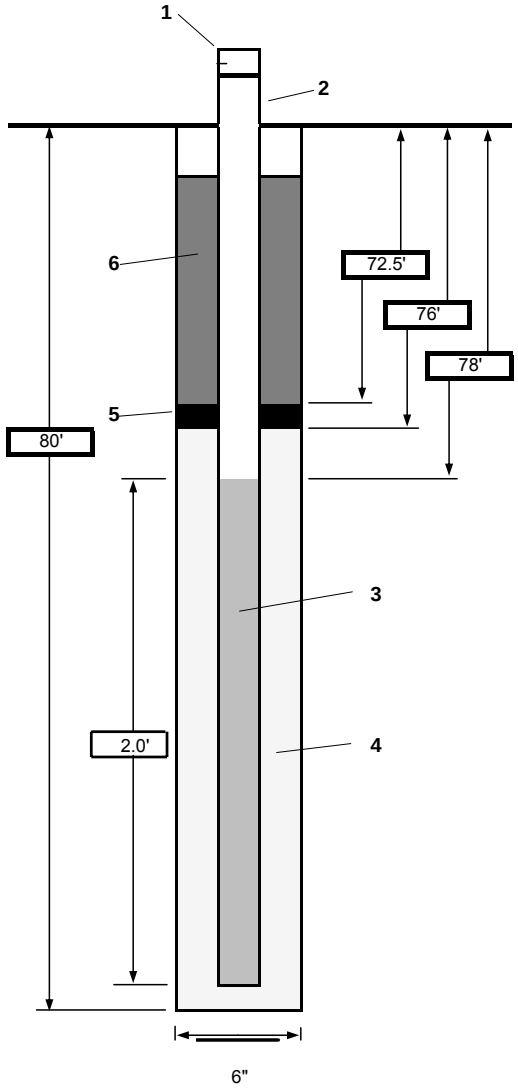
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/20/2004 — END: 7/20/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-47	SHEET 1	OF 1

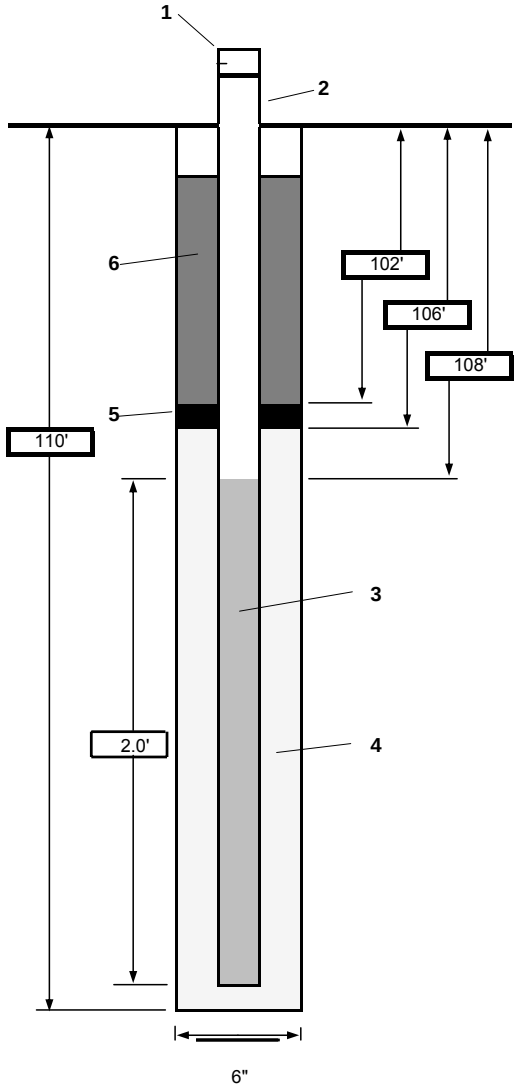
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/04/2004 END: 8/04/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-48	SHEET 1	OF 1

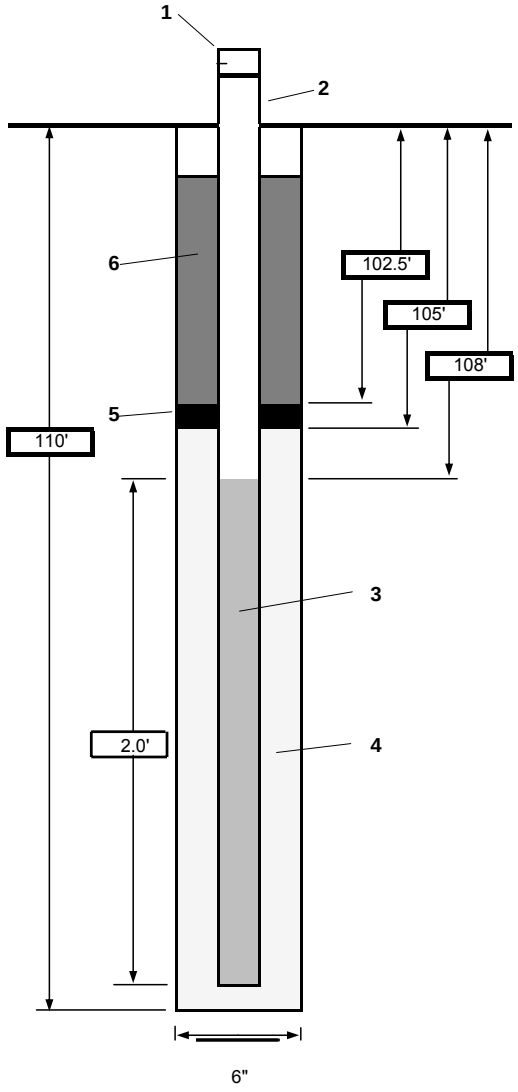
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/04/2004 END: 8/04/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-49	SHEET 1	OF 1

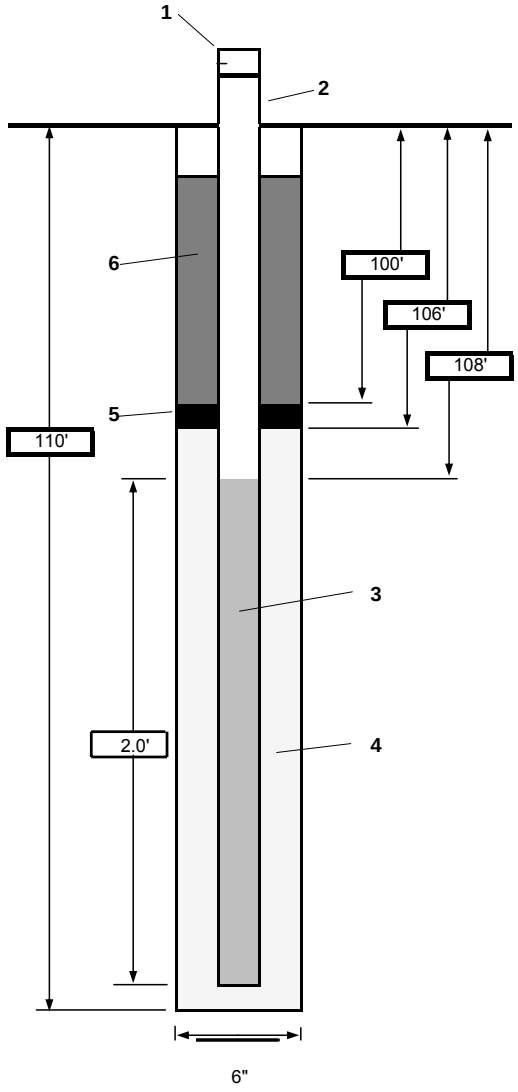
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/04/2004 — END: 8/04/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-50	SHEET 1	OF 1

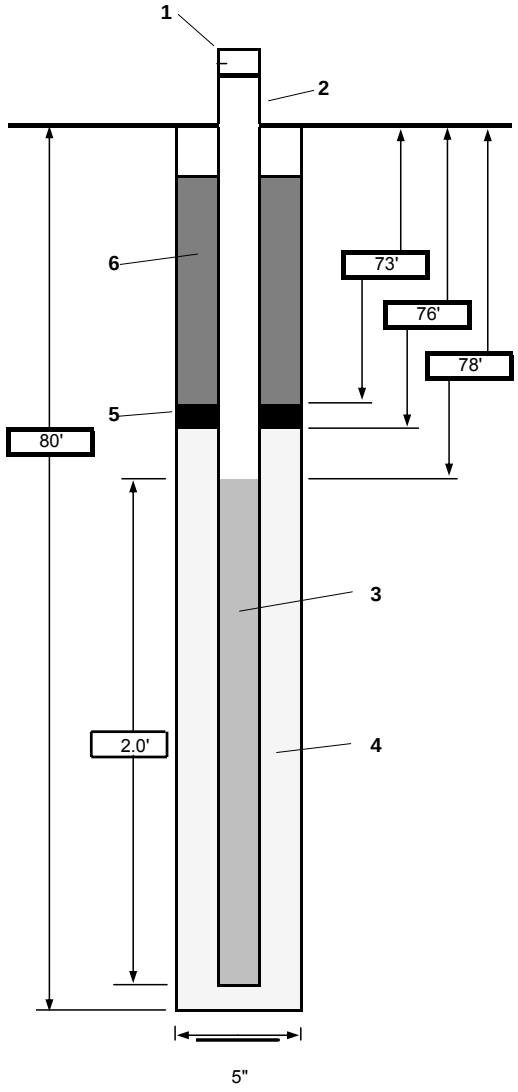
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/26/2004 END: 7/26/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-51	SHEET 1	OF 1

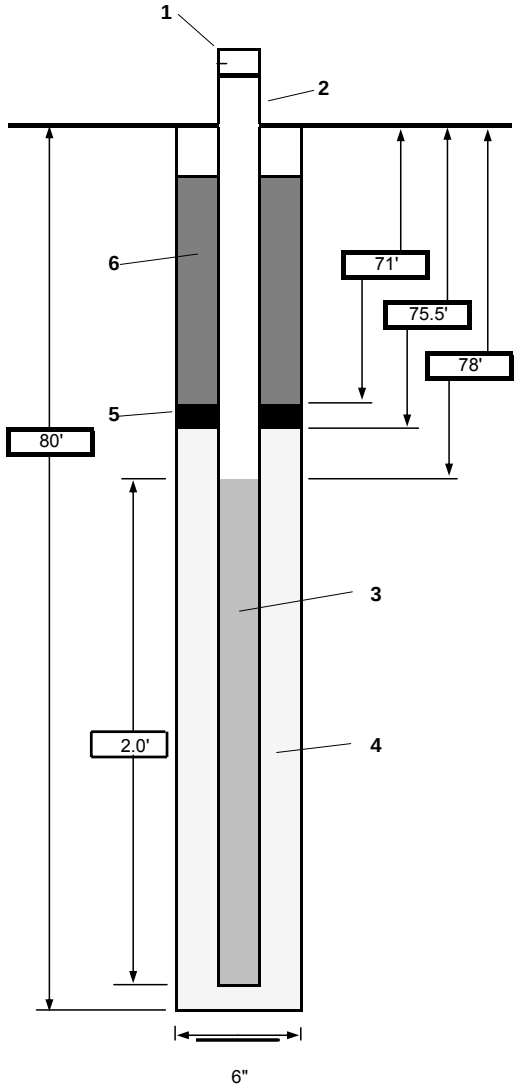
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/23/2004 — END: 7/23/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-52	SHEET 1	OF 1

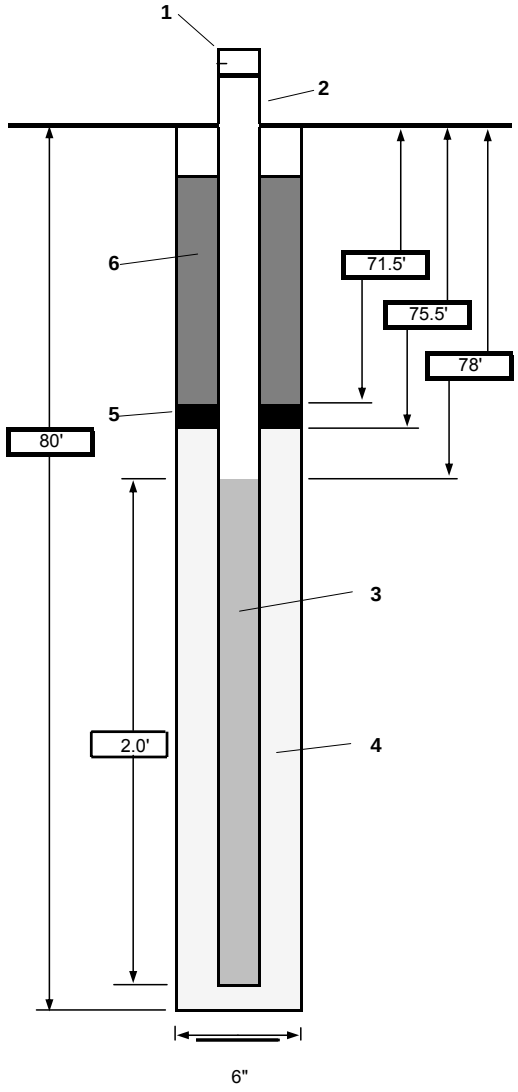
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/24/2004 — END: 7/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-53	SHEET 1	OF 1

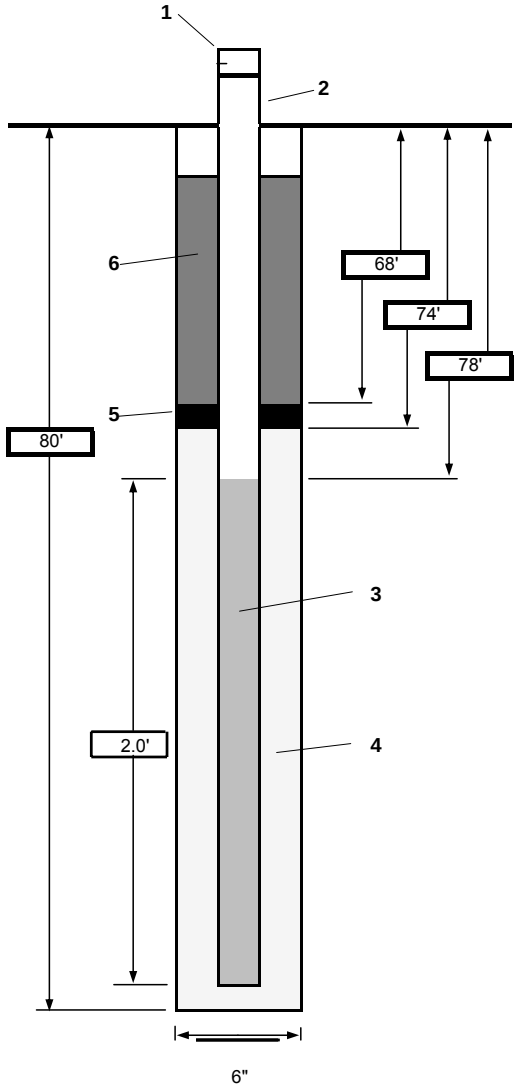
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/19/2004 — END: 7/19/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-53	SHEET 1	OF 1

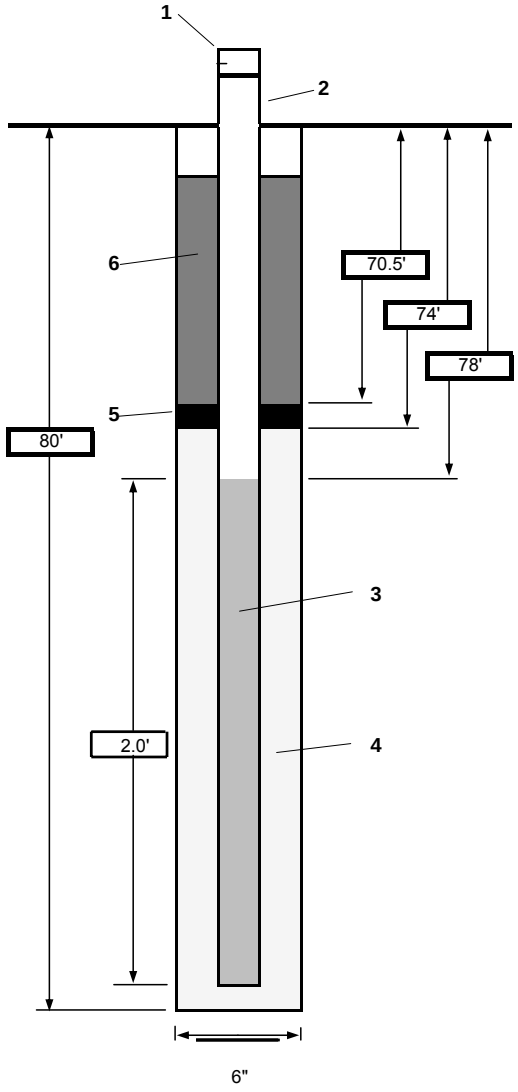
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/20/2004 — END: 7/20/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-53	SHEET 1	OF 1

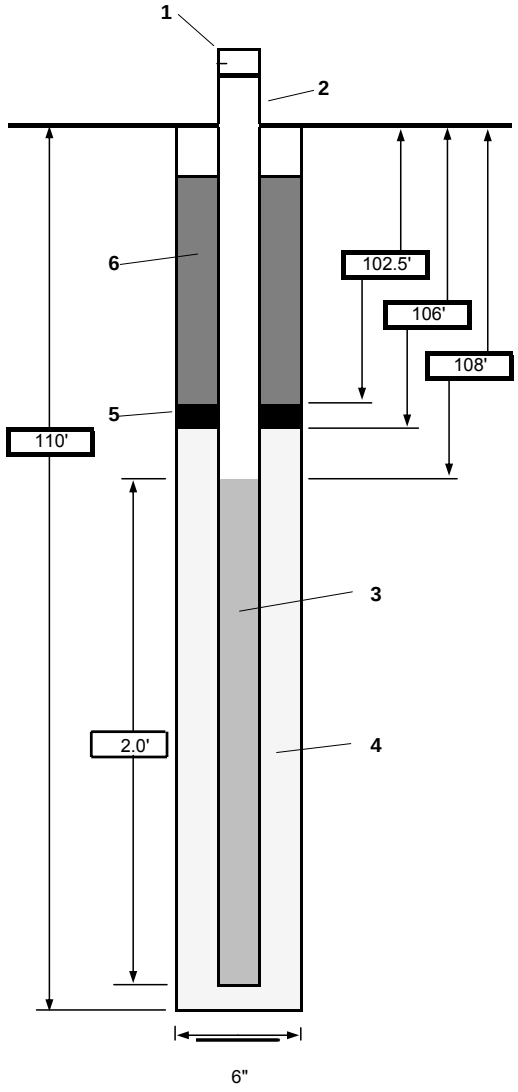
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/04/2004 END: 8/04/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-56	SHEET 1	OF 1

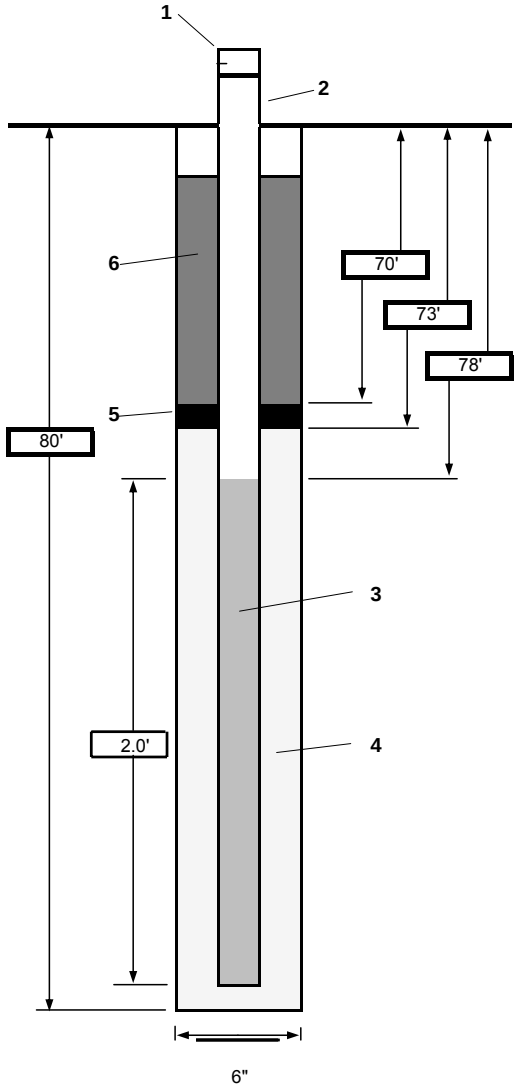
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/14/2004 END: 7/14/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-57	SHEET 1	OF 1

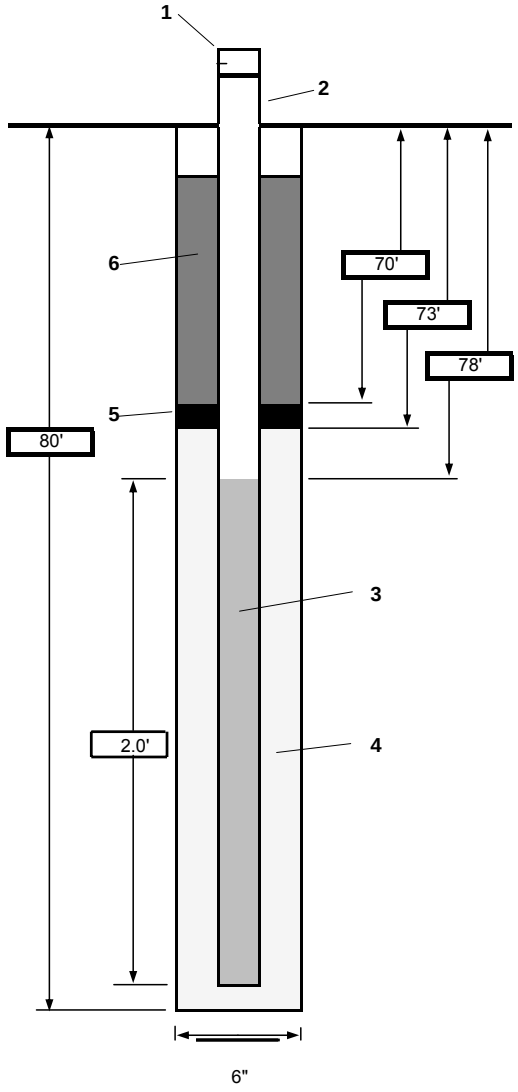
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/14/2004 END: 7/14/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-58	SHEET 1	OF 1

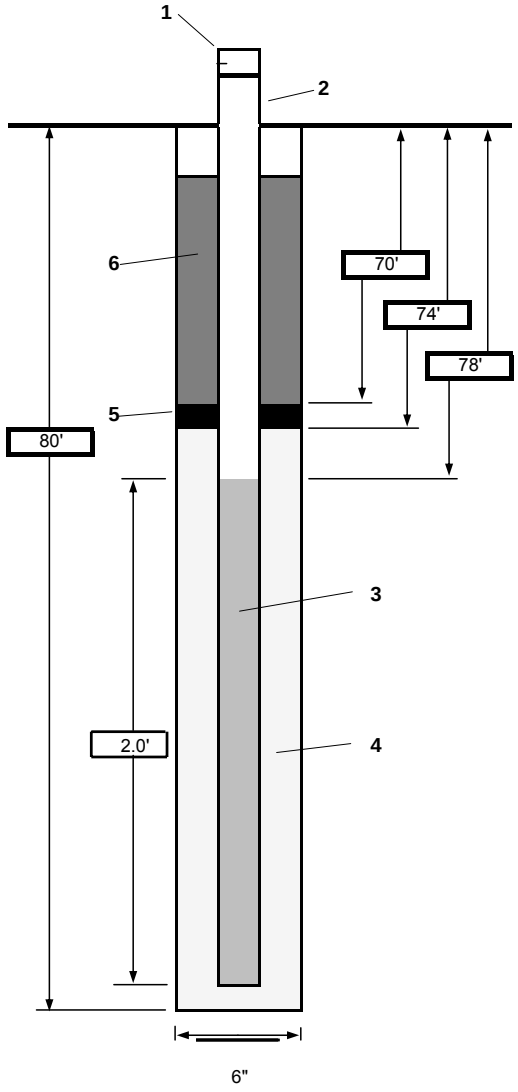
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/14/2004 END: 7/14/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-59	SHEET 1	OF 1

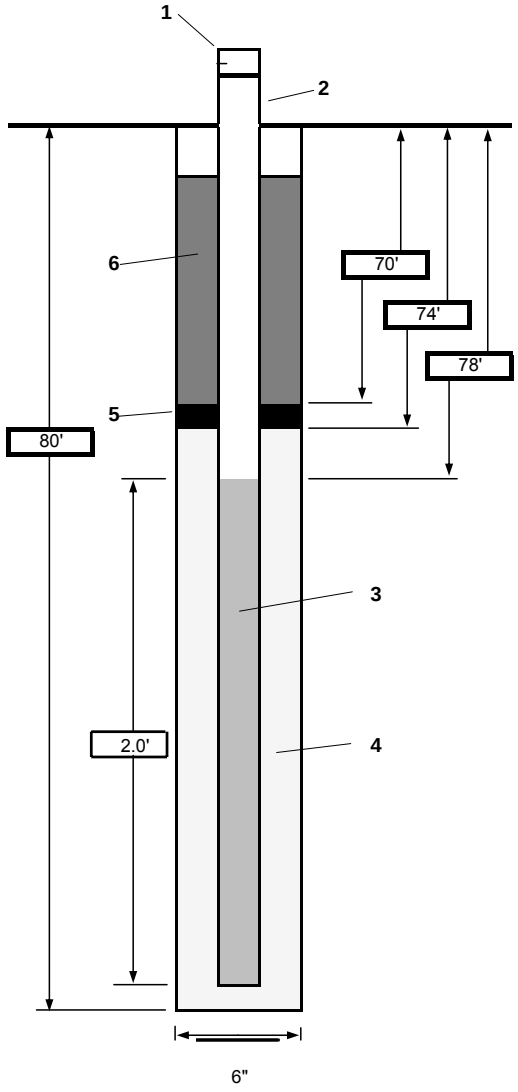
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/21/2004 — END: 7/21/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-60	SHEET 1	OF 1

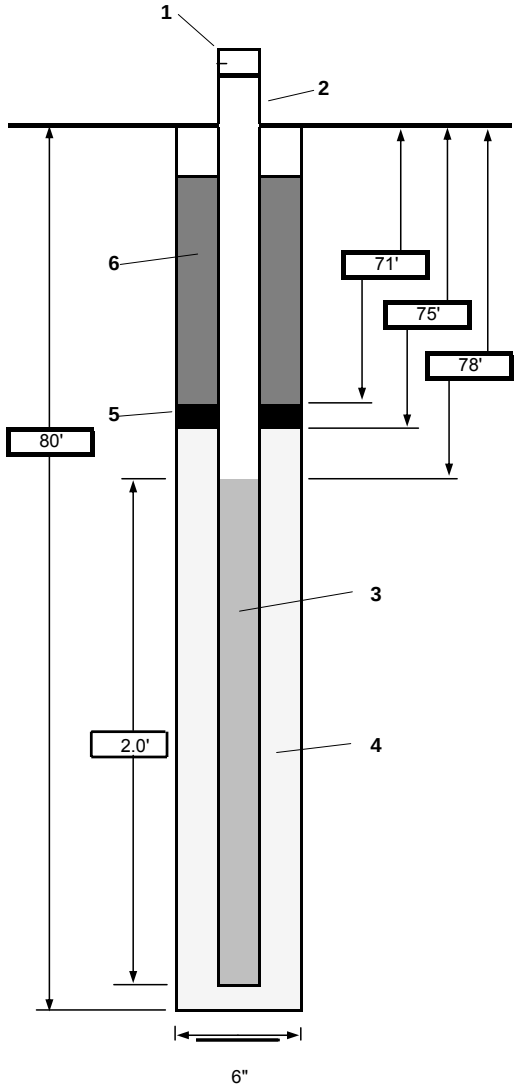
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/22/2004 — END: 7/22/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-61	SHEET 1	OF 1

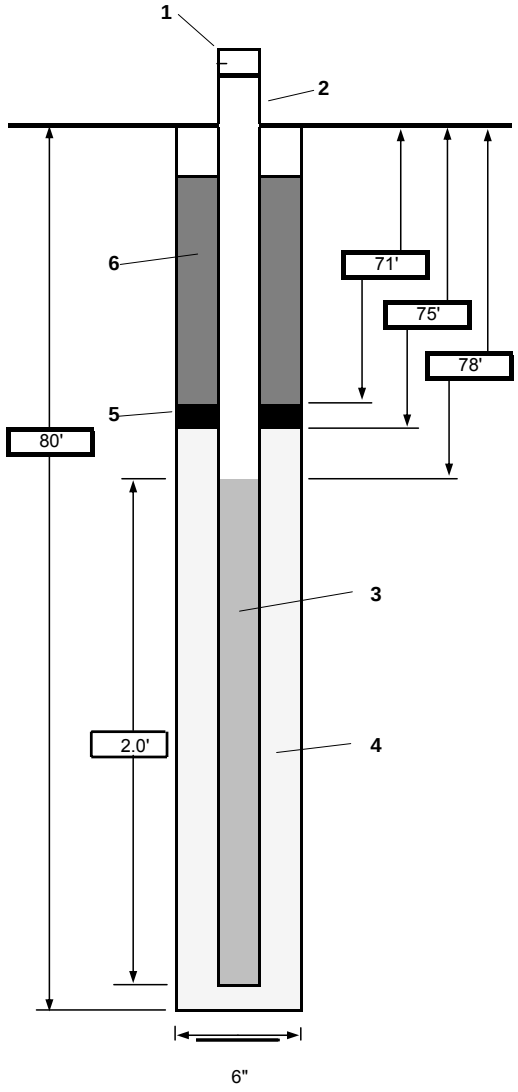
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/20/2004 END: 7/20/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-62	SHEET 1	OF 1

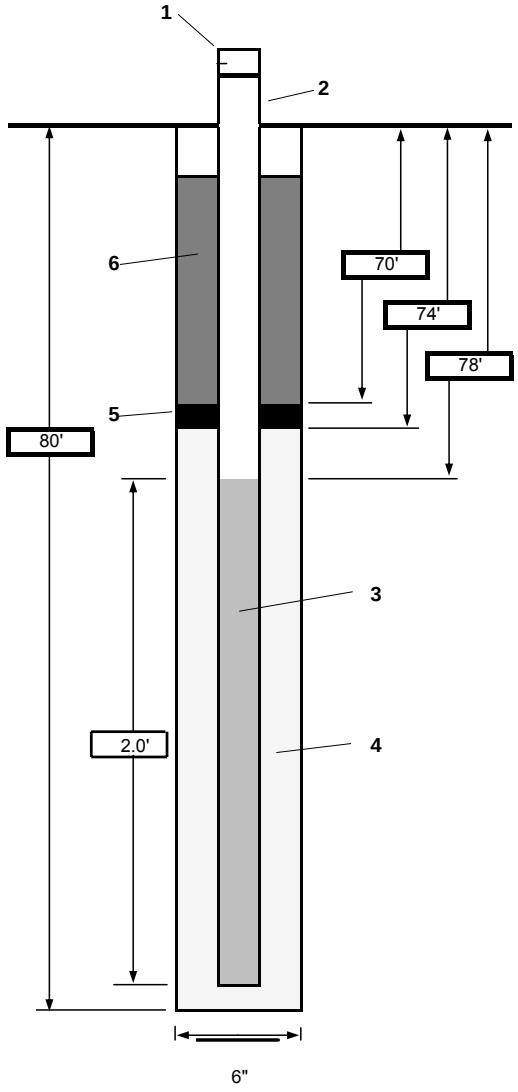
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/20/2004 END: 7/20/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-63	SHEET 1	OF 1

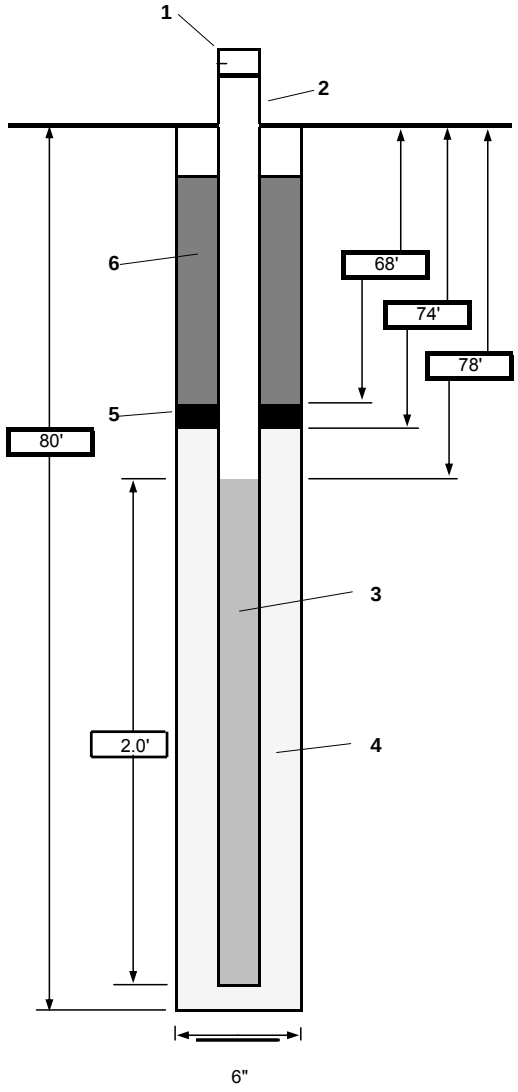
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/21/2004 END: 7/21/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-64	SHEET 1	OF 1

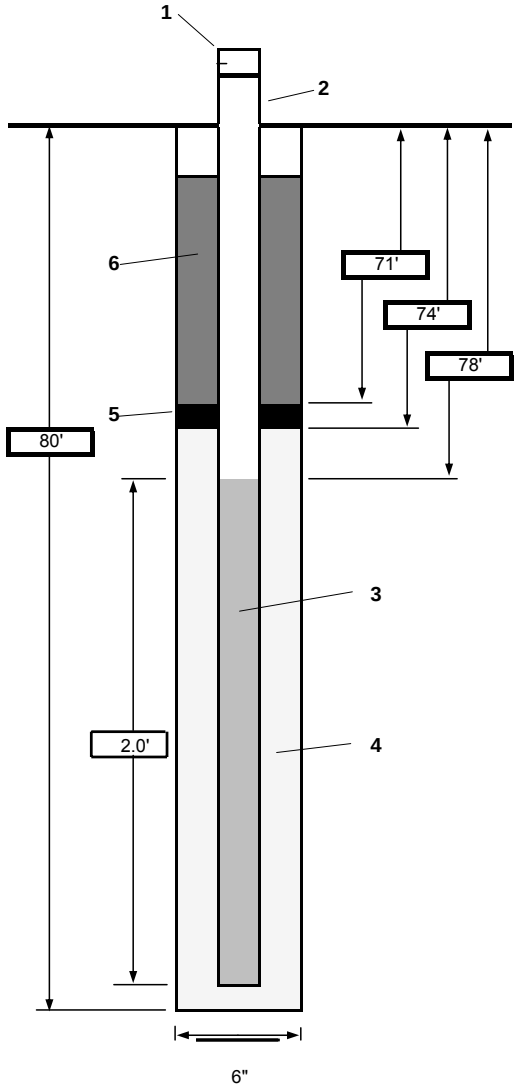
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/22/2004 END: 7/22/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-65	SHEET 1	OF 1

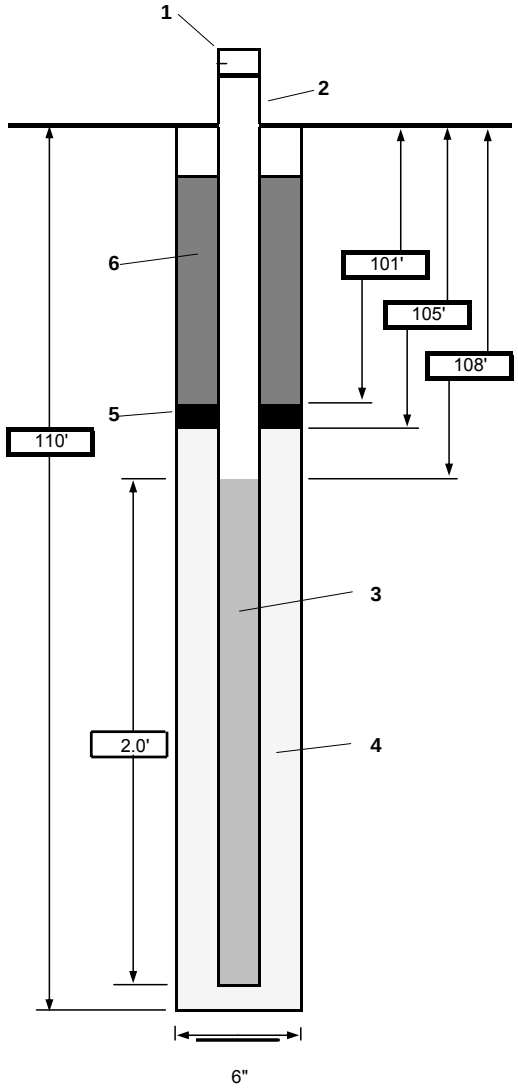
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 7/22/2004 END: 7/22/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-66	SHEET 1	OF 1

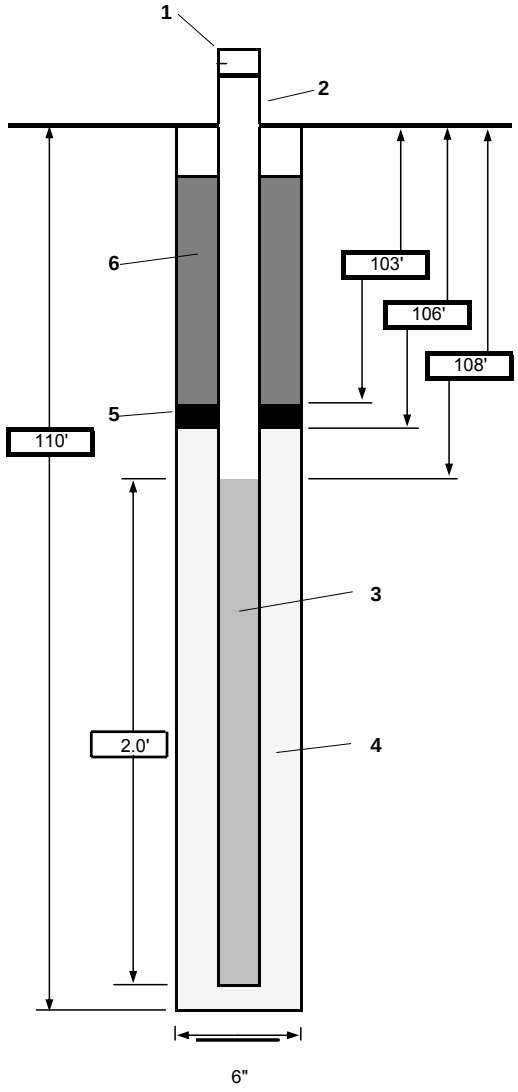
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/23/2004 — END: 7/23/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-67	SHEET 1	OF 1

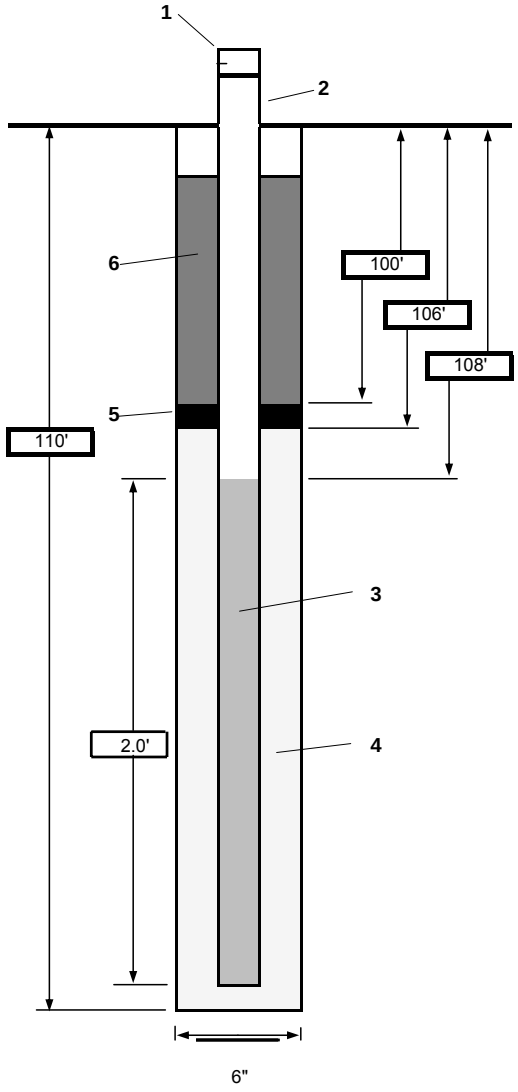
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/23/2004 — END: 7/23/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-68	SHEET 1	OF 1

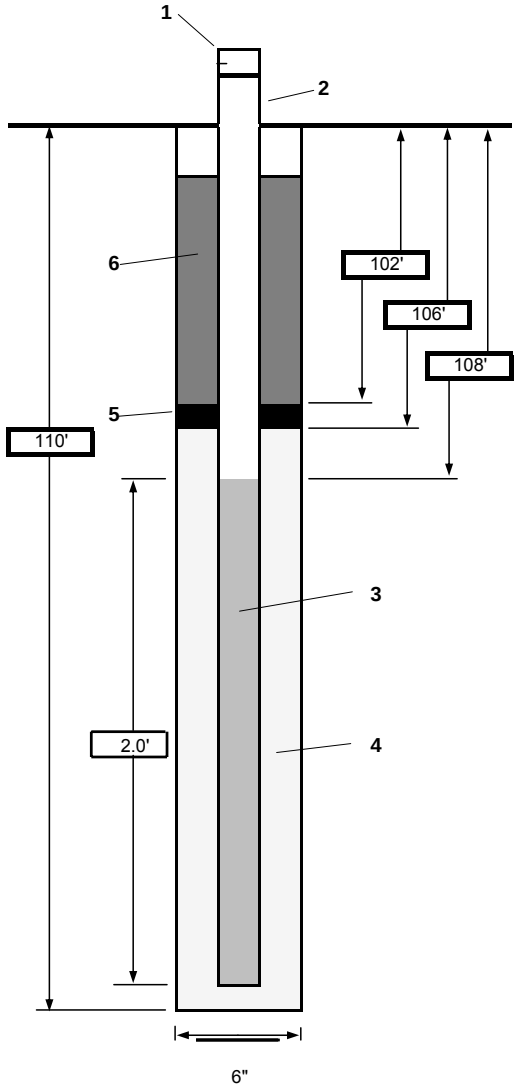
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/26/2004 — END: 7/26/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-69	SHEET 1	OF 1

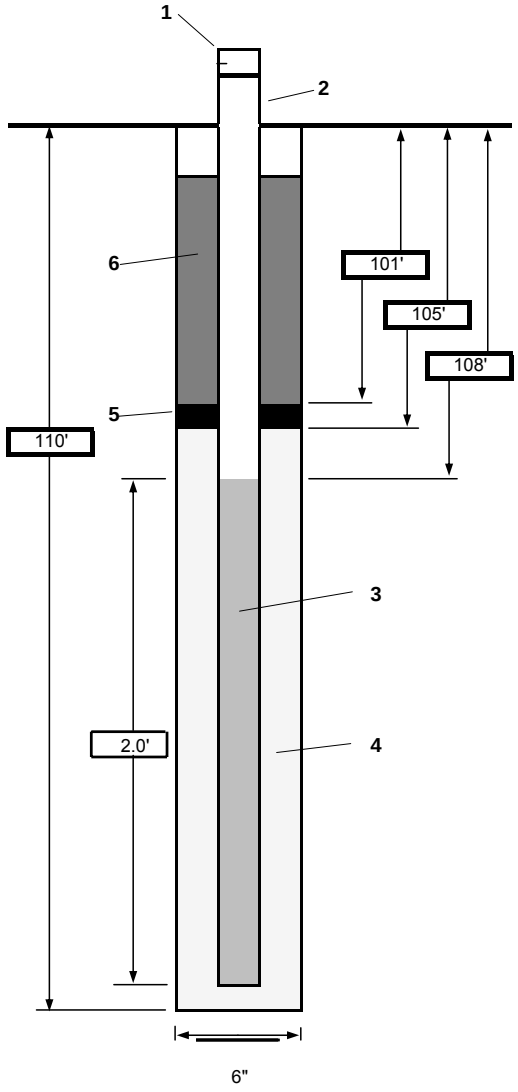
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/28/2004 — END: 7/28/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-70	SHEET 1	OF 1

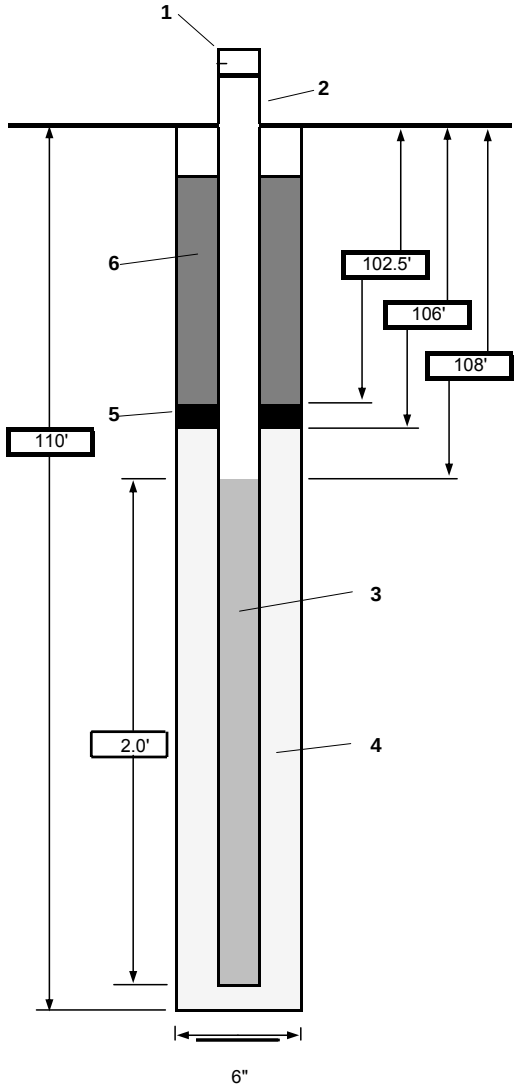
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 7/22/2004 — END: 7/22/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-71	SHEET 1	OF 1

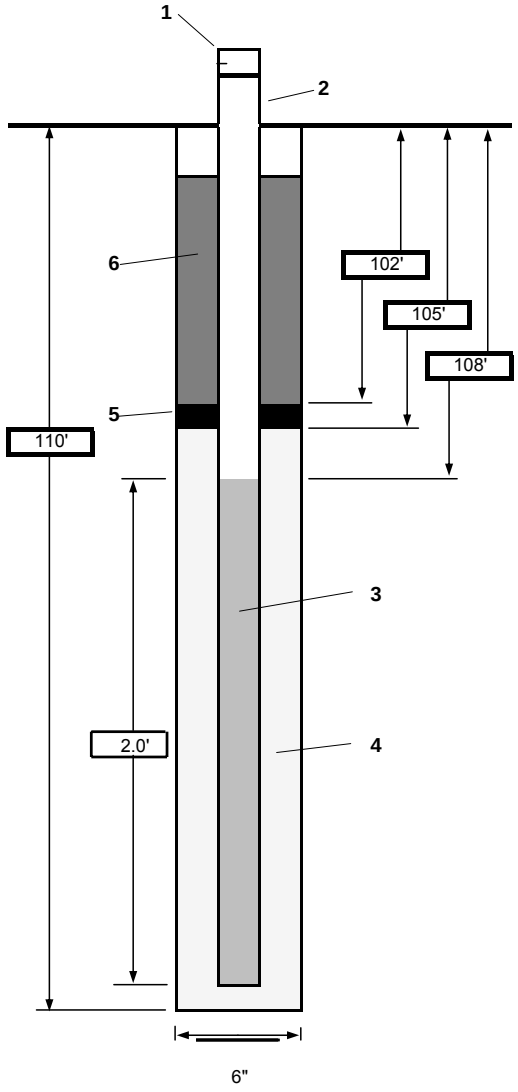
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/06/2004 END: 8/06/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-72	SHEET 1	OF 1

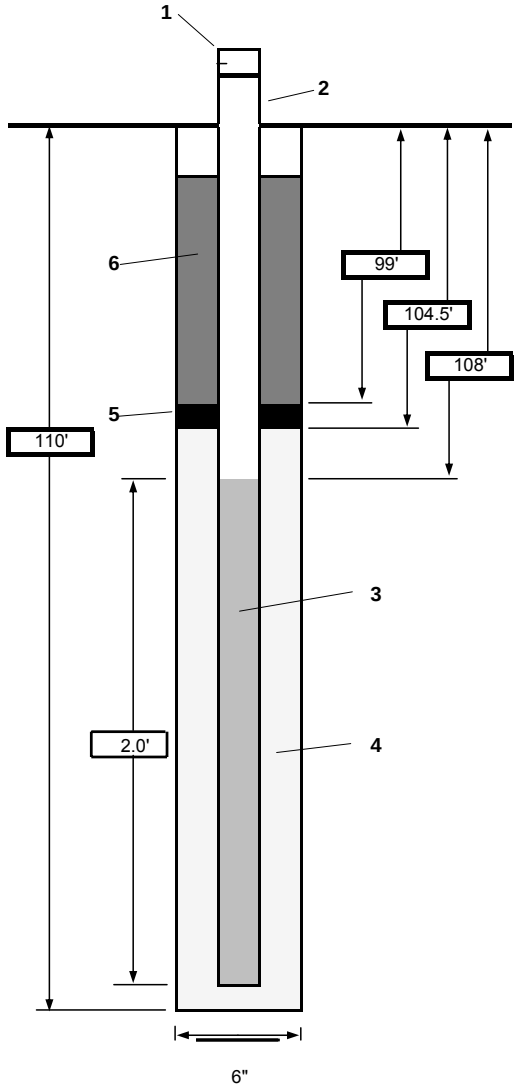
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/05/2004 — END: 8/05/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-73	SHEET 1	OF 1

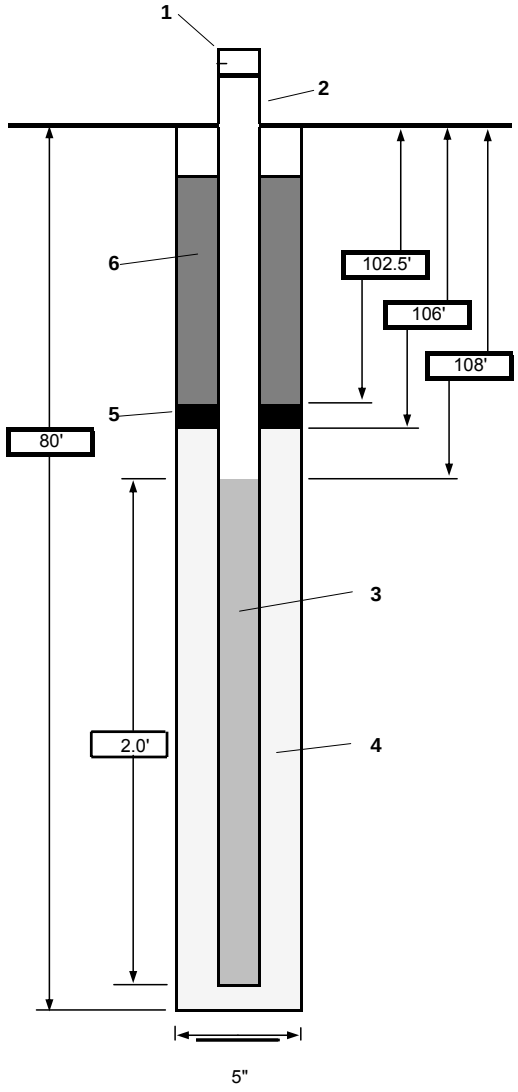
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 6/24/2004 — END: 6/24/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-74	SHEET 1	OF 1

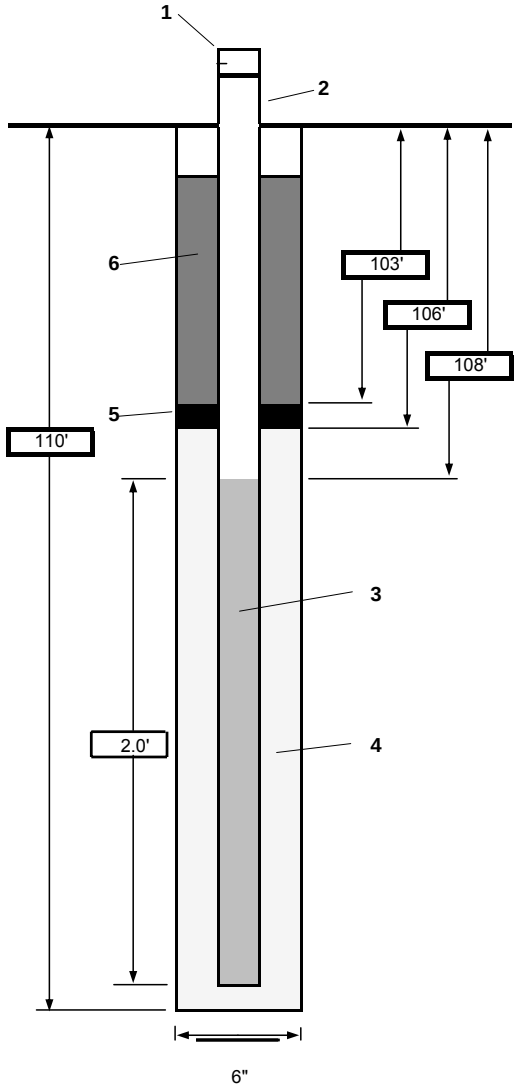
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/17/2004 END: 8/17/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-75	SHEET 1	OF 1

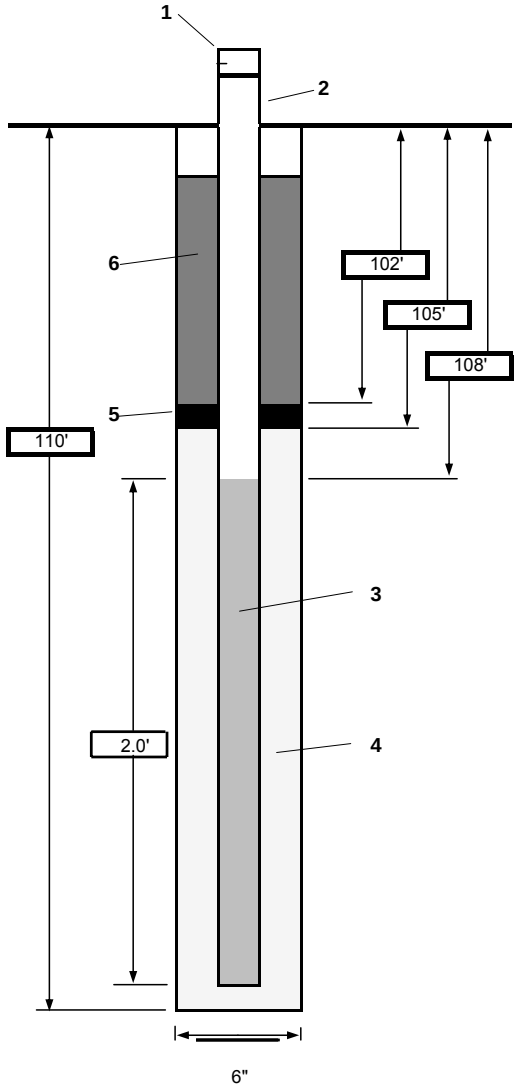
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/06/2004 — END: 8/06/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-76	SHEET 1	OF 1

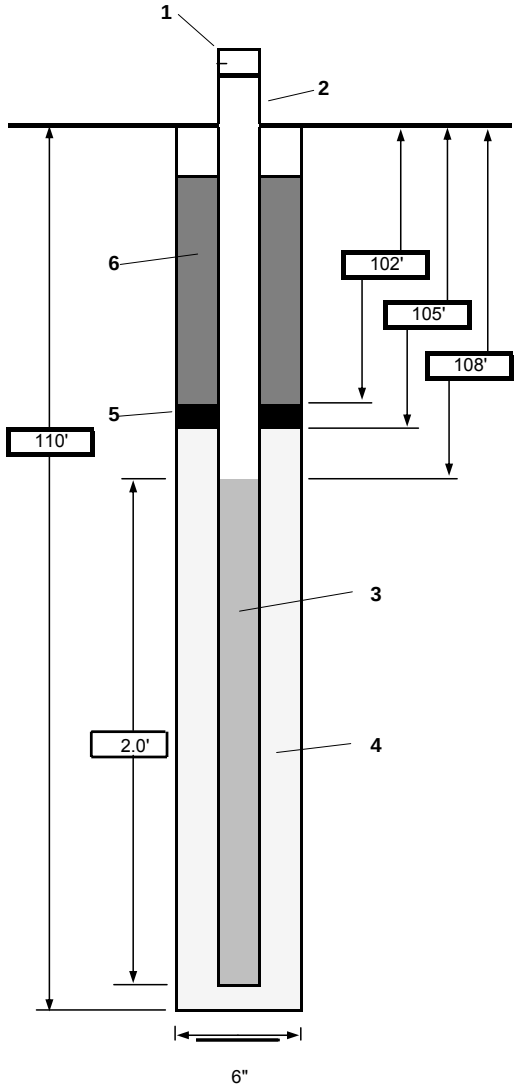
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/07/2004 — END: 8/07/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-77	SHEET 1	OF 1

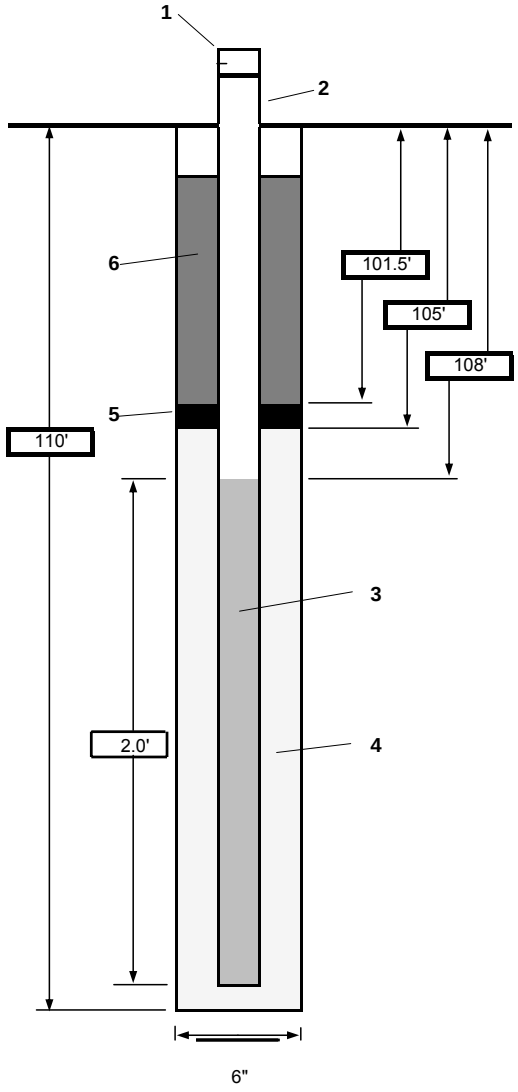
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/05/2004 — END: 8/05/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-78	SHEET 1	OF 1

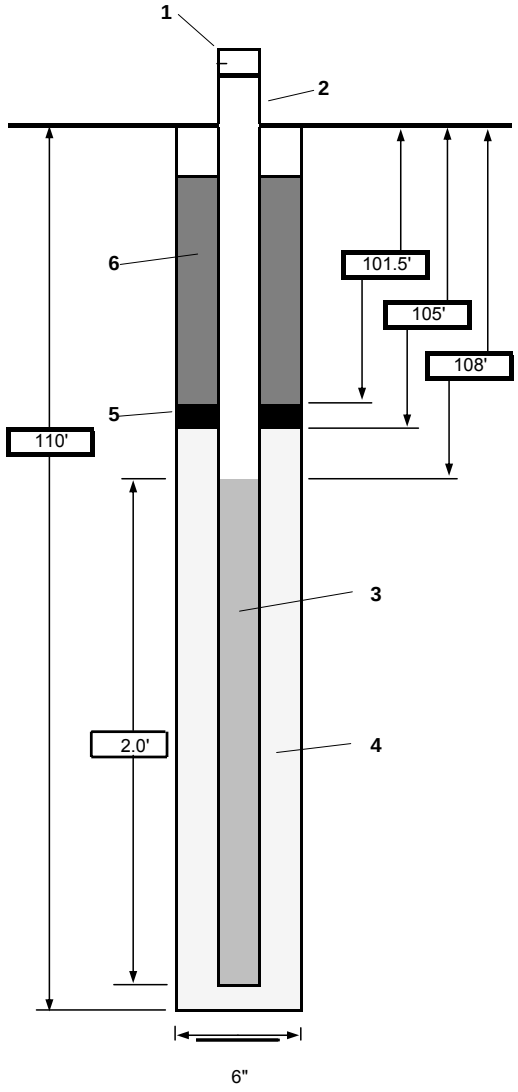
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/17/2004 — END: 8/17/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-79	SHEET 1	OF 1

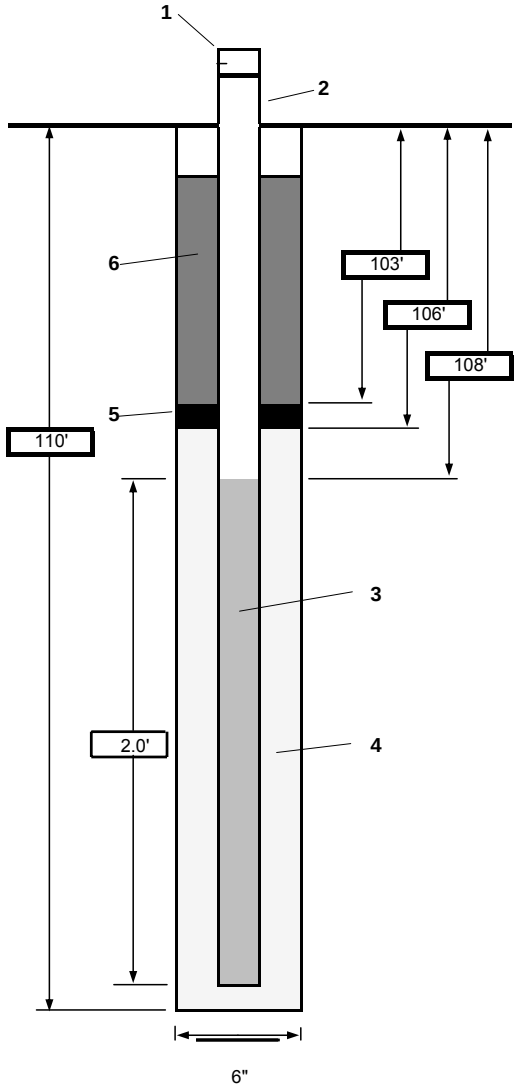
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/18/2004 END: 8/18/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-80	SHEET 1	OF 1

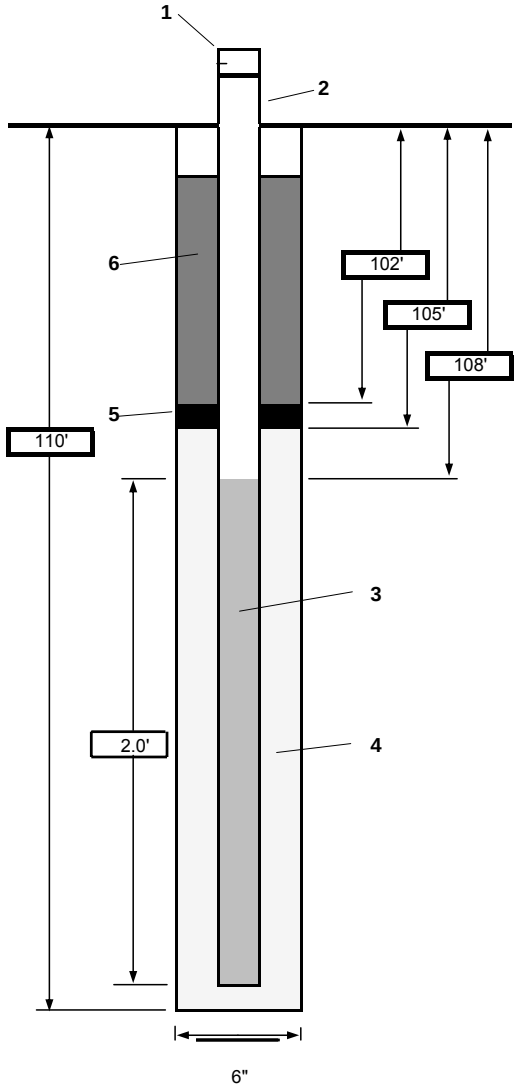
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/18/2004 END: 8/18/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-81	SHEET 1	OF 1

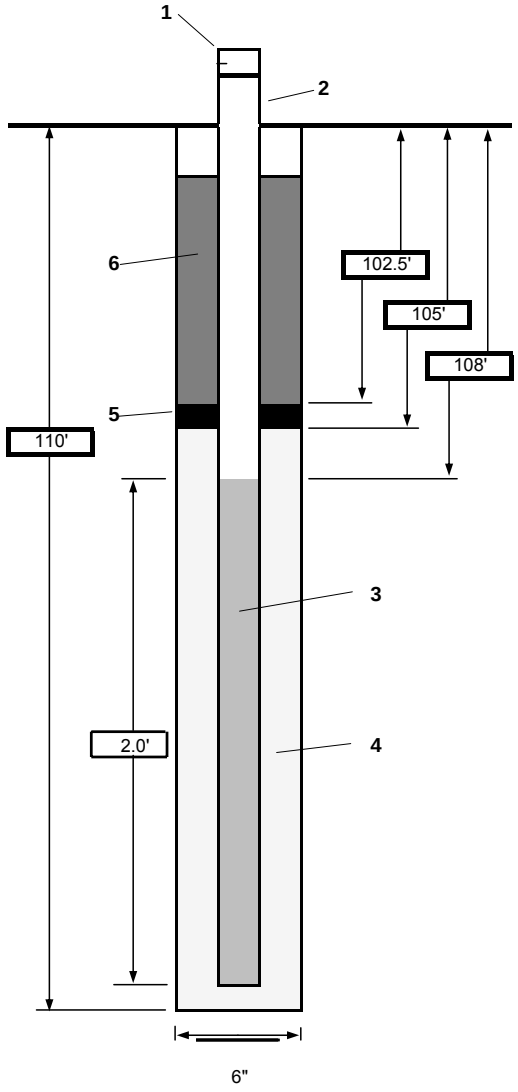
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/18/2004 END: 8/18/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-82	SHEET 1	OF 1

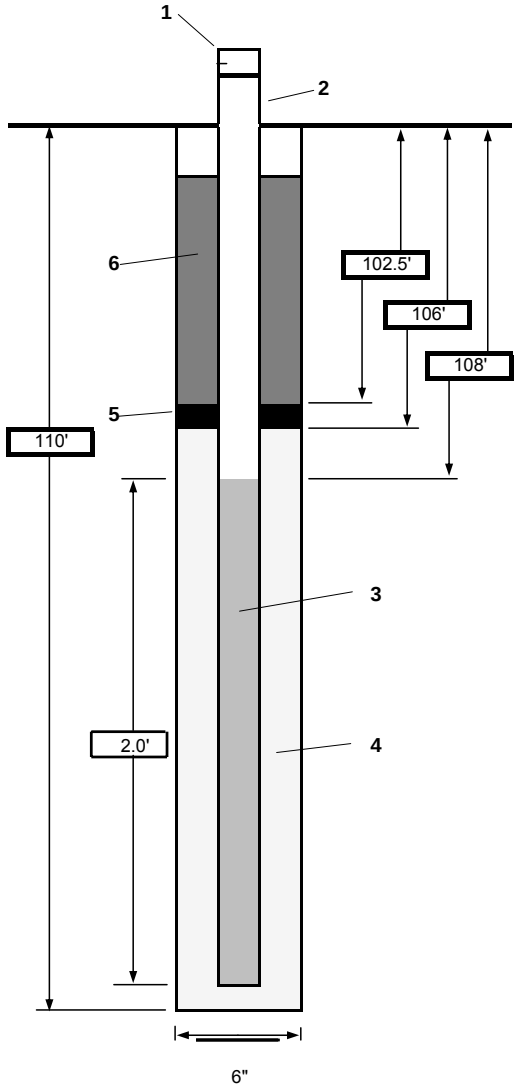
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/10/2004 — END: 8/10/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER	
283092	BD-83	SHEET 1 OF 1

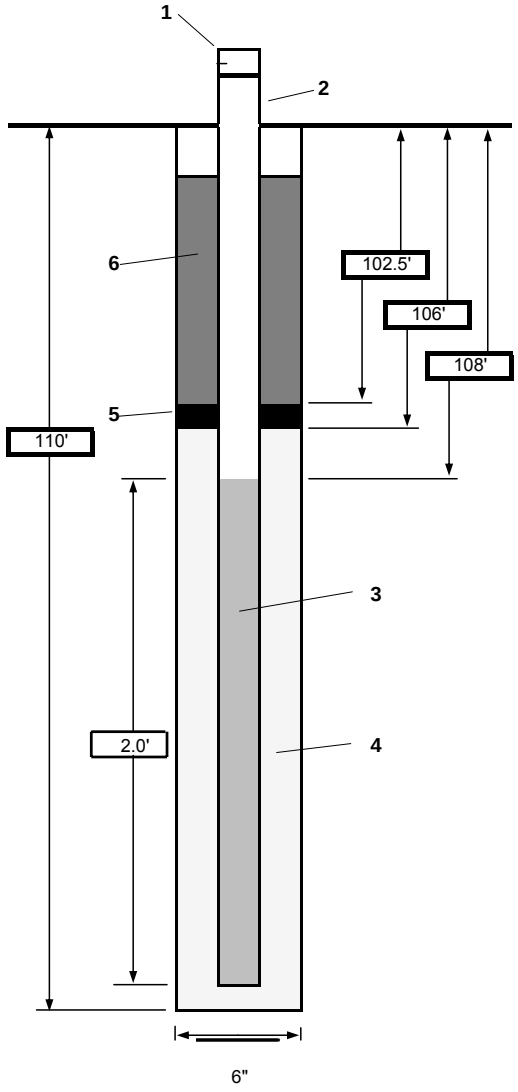
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/05/2004 — END: 8/05/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-84	SHEET 1	OF 1

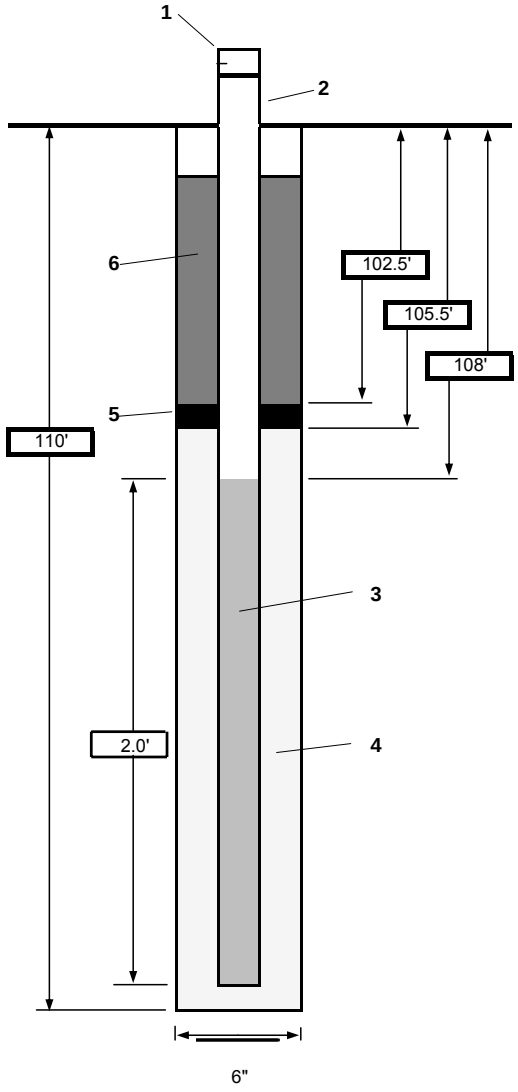
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/17/2004 END: 8/17/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-85	SHEET 1	OF 1

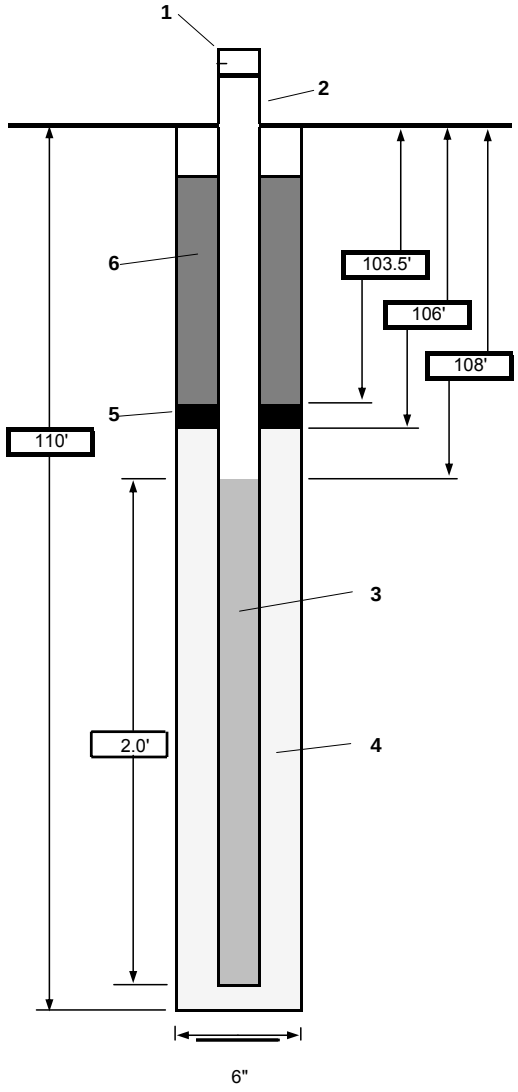
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/16/2004 END: 8/16/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-86	SHEET 1	OF 1

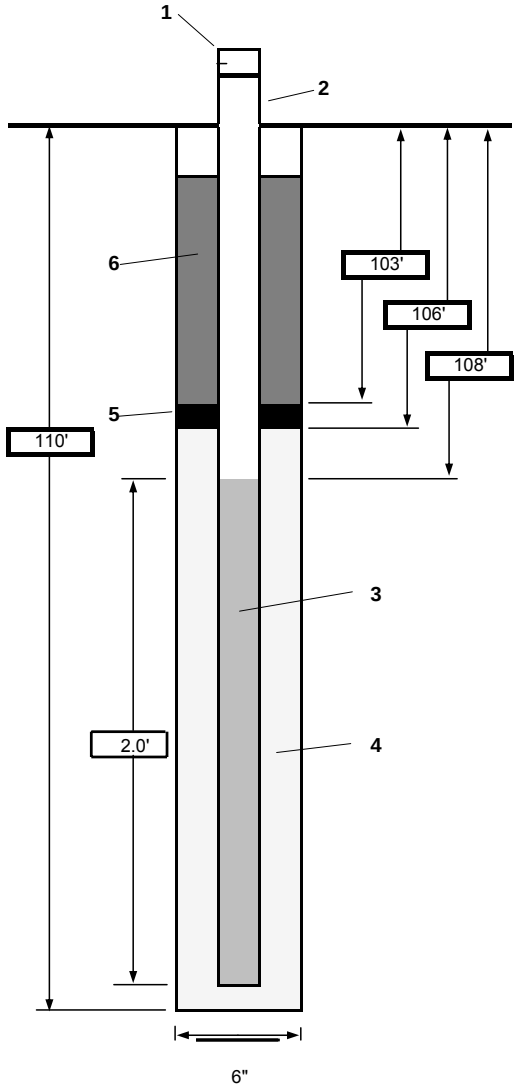
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/16/2004 END: 8/16/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-87	SHEET 1	OF 1

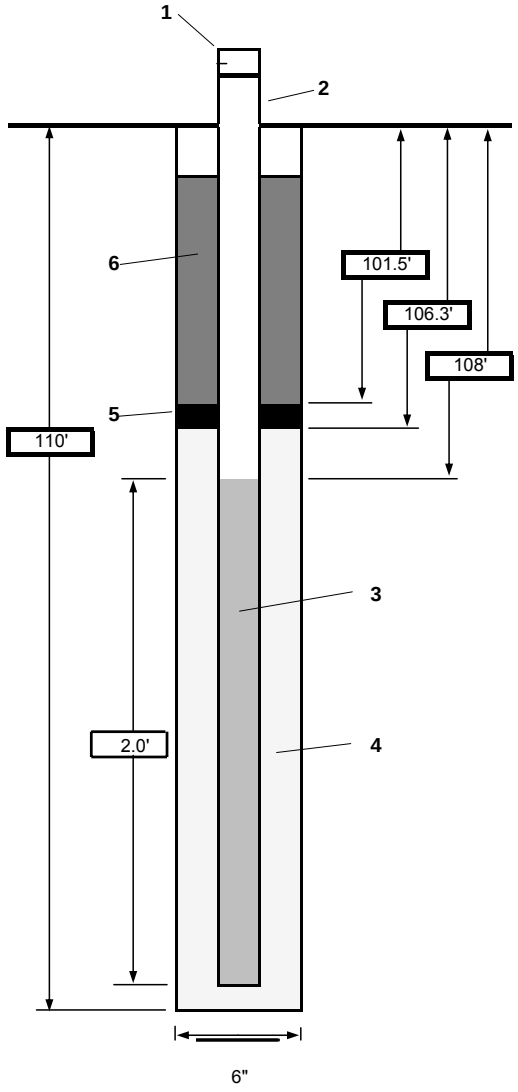
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/11/2004 — END: 8/12/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-88	SHEET 1	OF 1

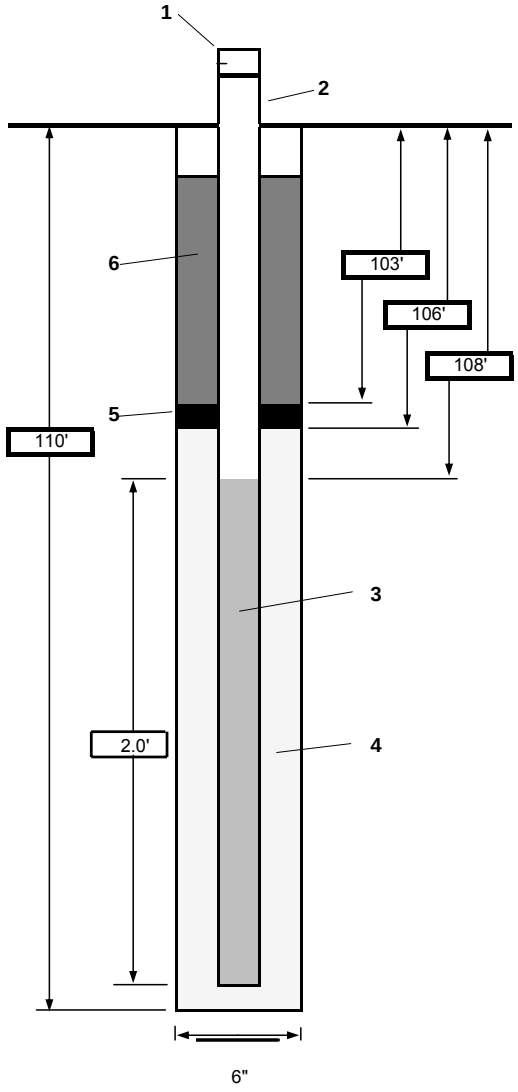
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/11/2004 — END: 8/11/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-89	SHEET 1	OF 1

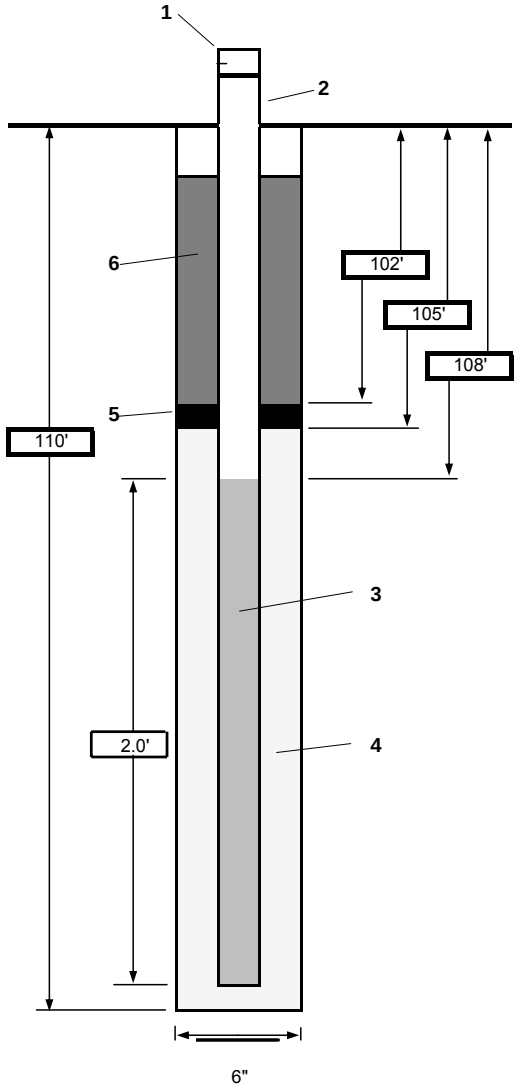
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/11/2004 — END: 8/11/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-90	SHEET 1	OF 1

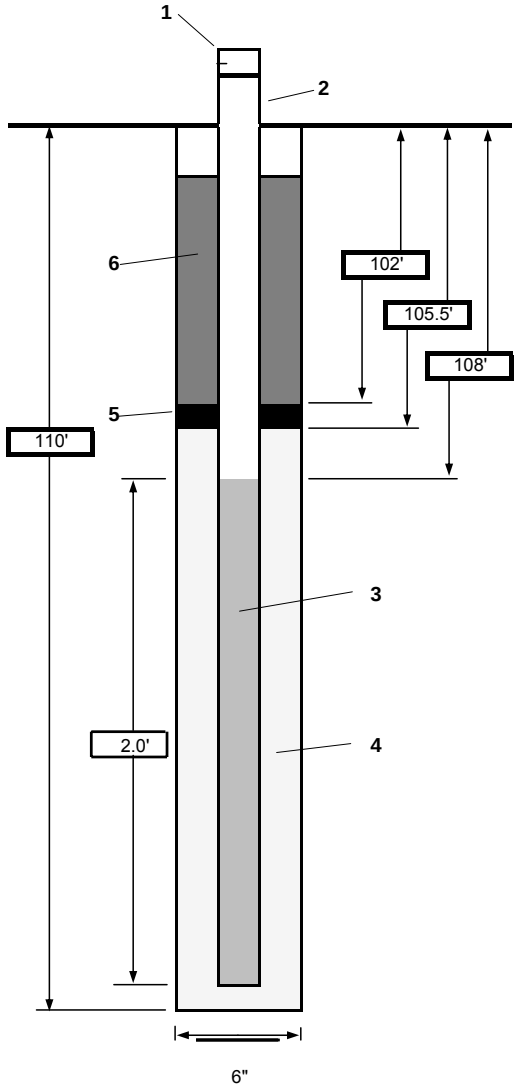
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/05/2004 — END: 8/05/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-91	SHEET 1	OF 1

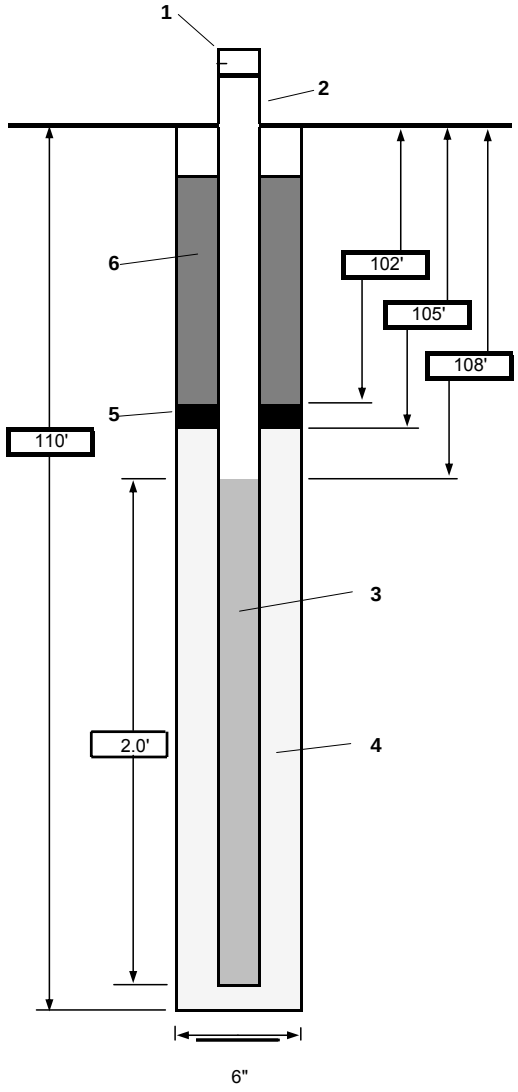
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/10/2004 END: 8/10/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-92	SHEET 1	OF 1

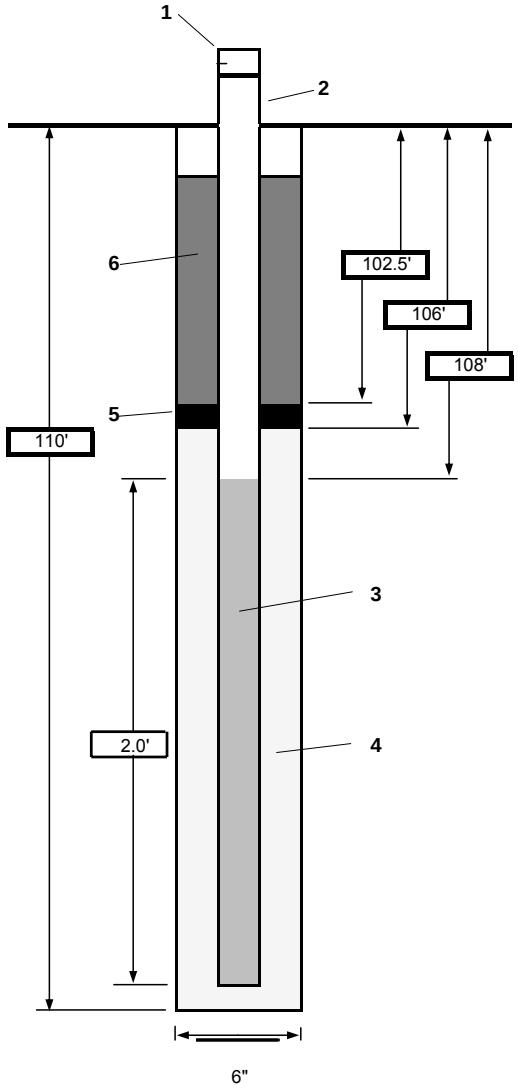
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/06/2004 END: 8/06/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-93	SHEET 1	OF 1

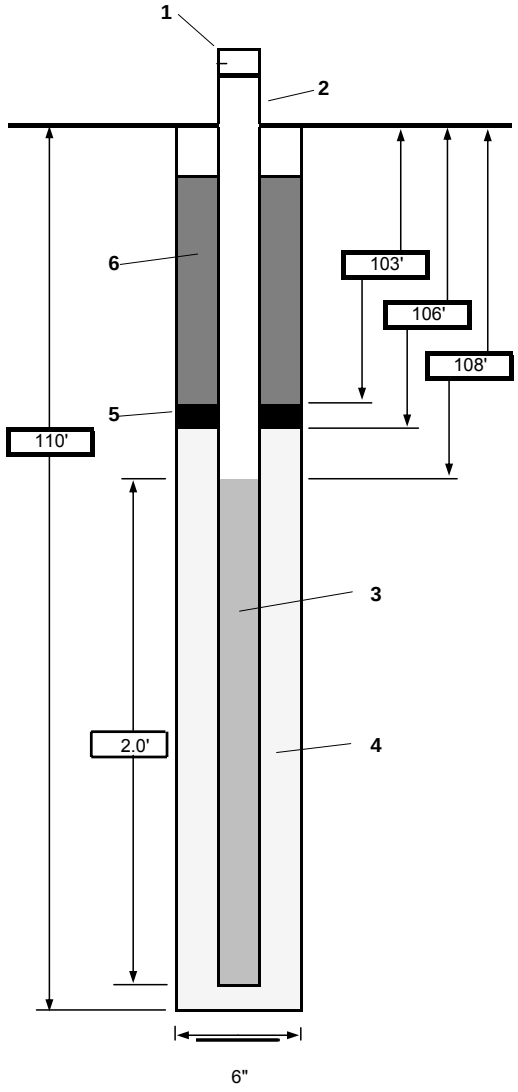
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/16/2004 END: 8/16/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-94	SHEET 1	OF 1

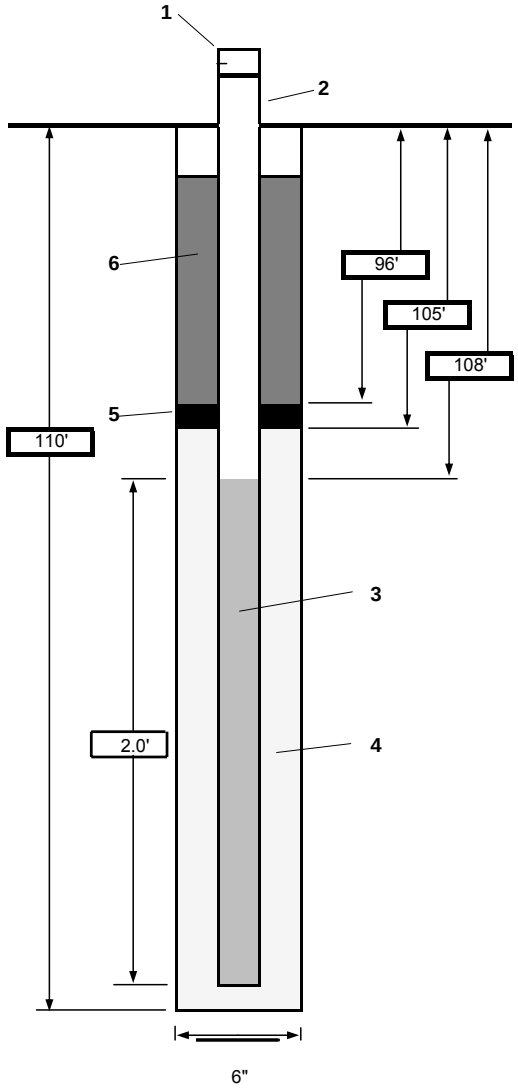
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/11/2004 END: 8/11/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-95	SHEET 1	OF 1

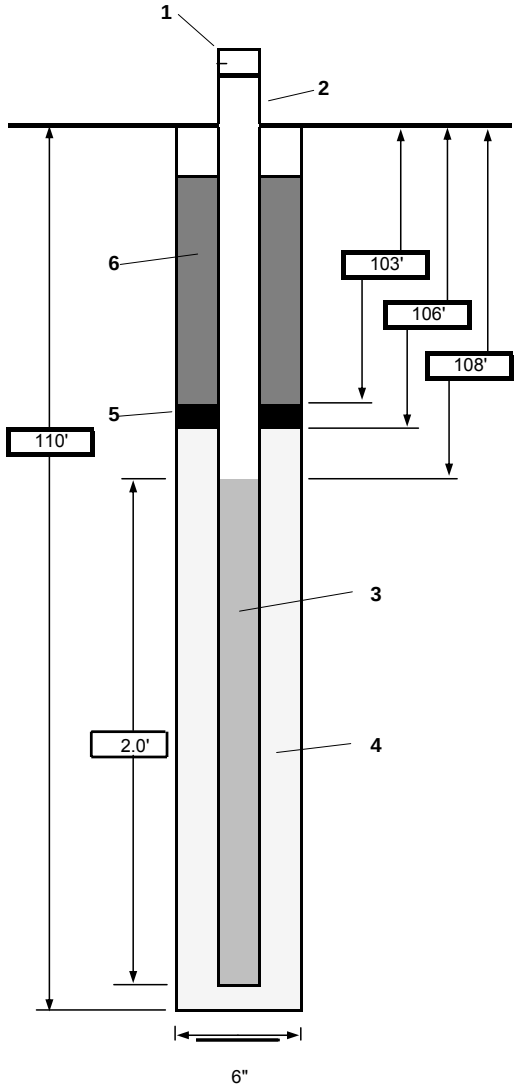
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/10/2004 END: 8/10/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-96	SHEET 1	OF 1

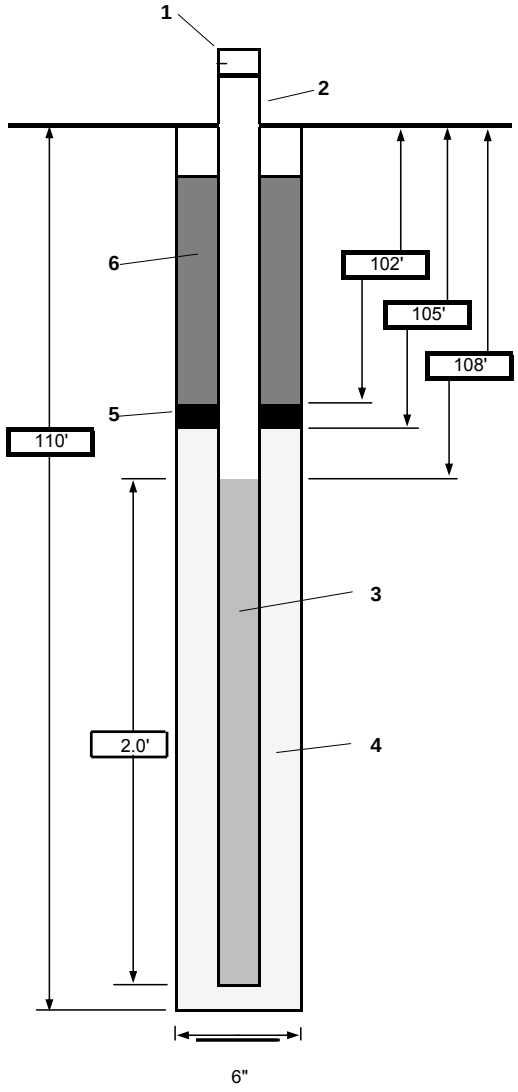
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/06/2004 — END: 8/06/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-97	SHEET 1	OF 1

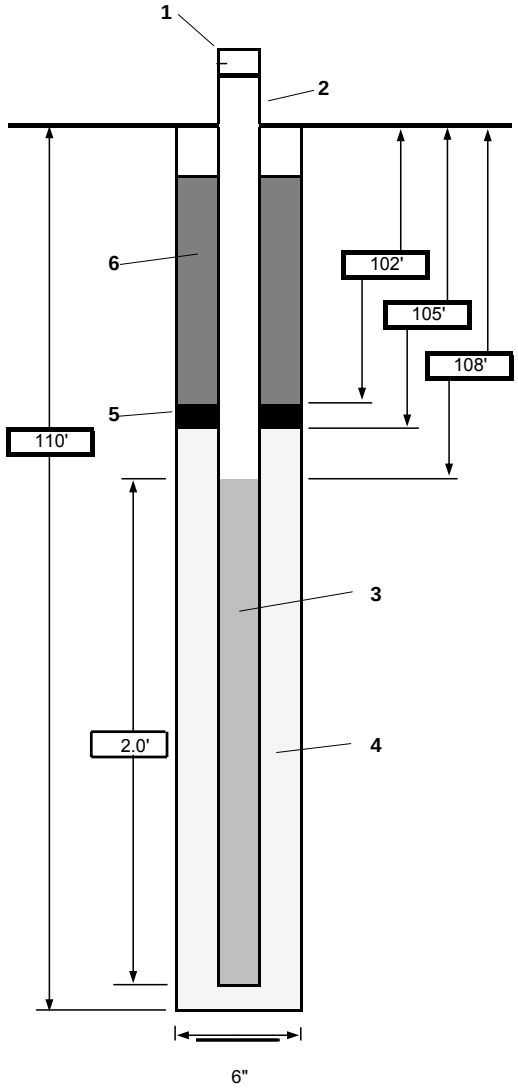
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/06/2004 END: 8/06/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-98	SHEET 1	OF 1

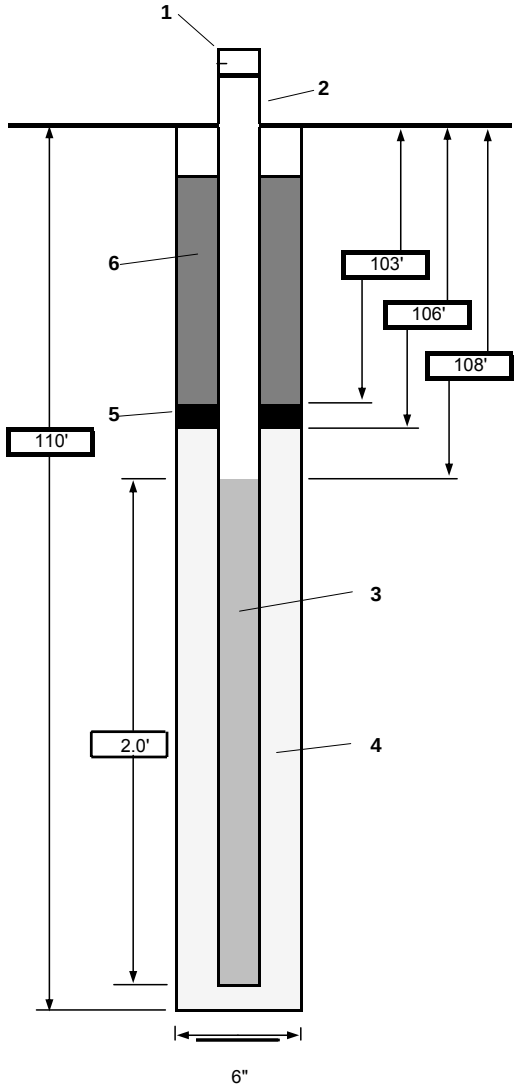
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/09/2004 END: 8/09/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-99	SHEET 1	OF 1

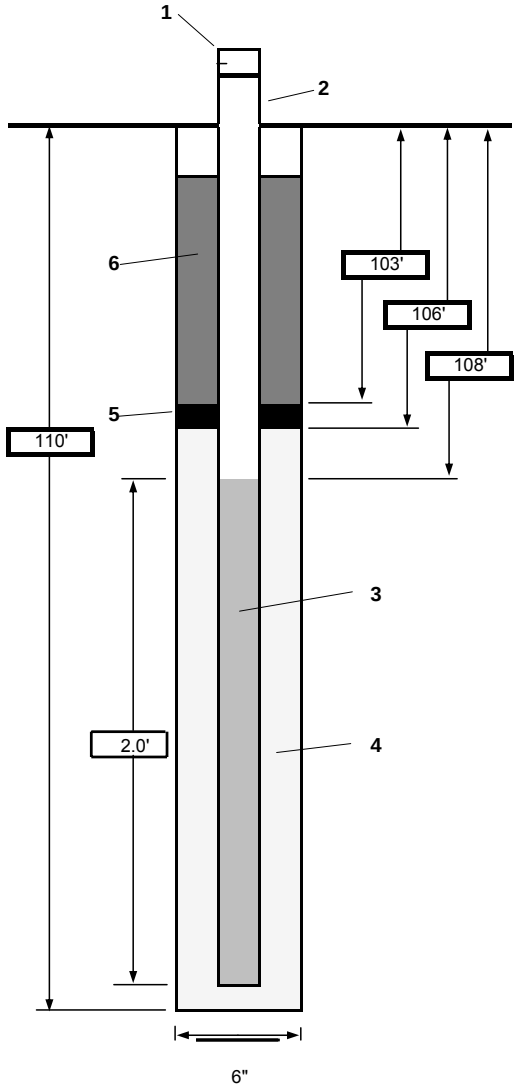
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/09/2004 — END: 8/09/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
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4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-100	SHEET 1	OF 1

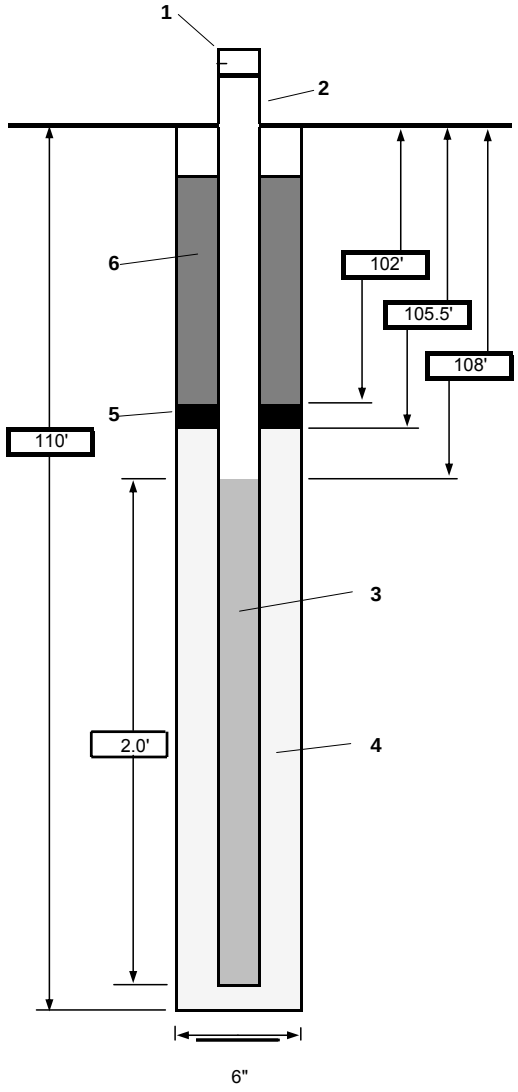
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/10/2004 END: 8/10/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-101	SHEET 1	OF 1

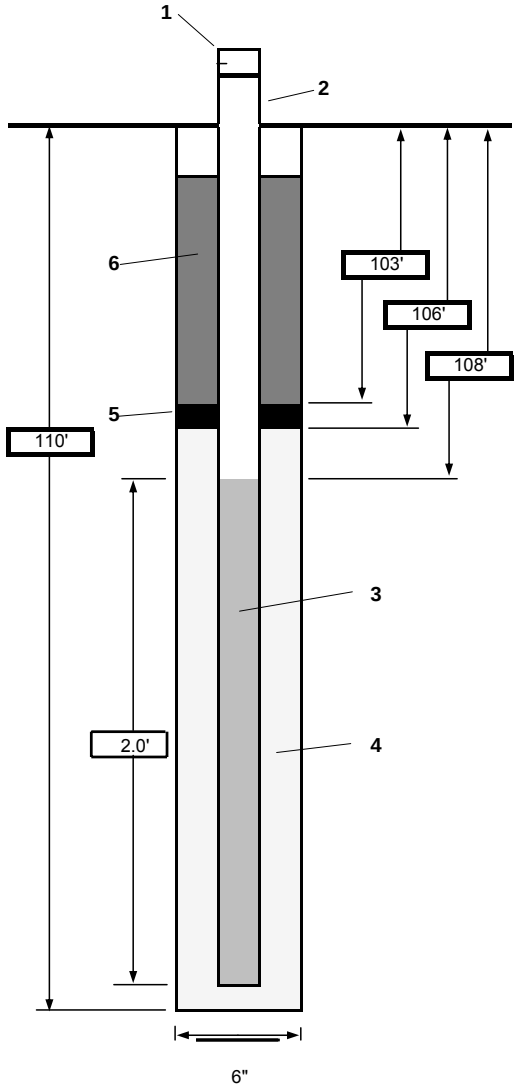
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/07/2004 END: 8/07/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-102	SHEET 1	OF 1

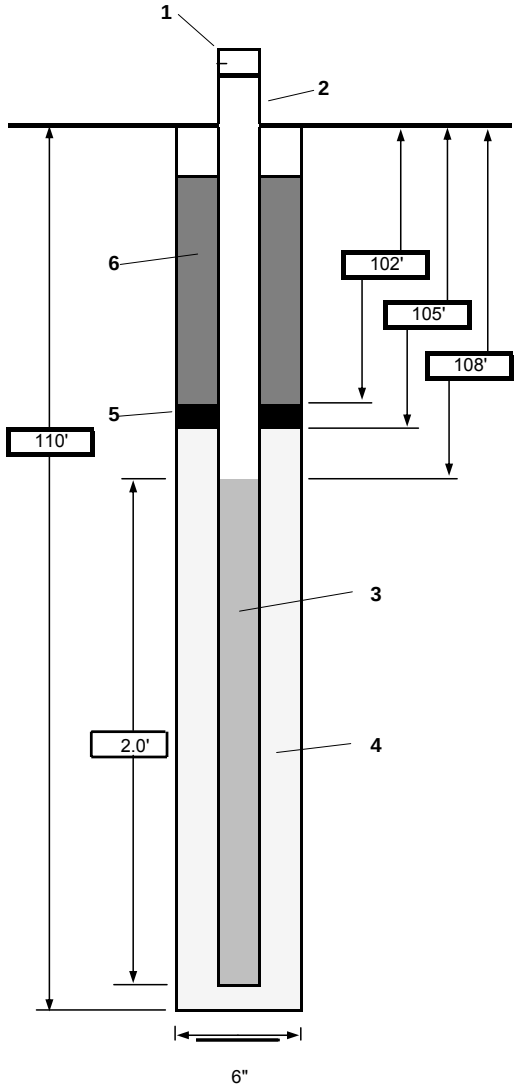
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/09/2004 END: 8/09/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-102	SHEET 1	OF 1

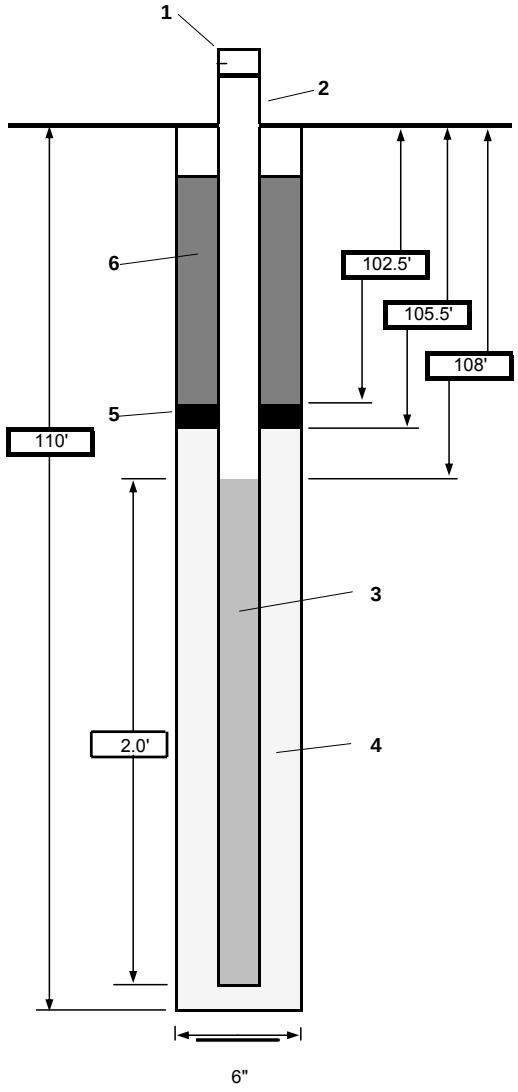
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/09/2004 END: 8/09/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-102	SHEET 1	OF 1

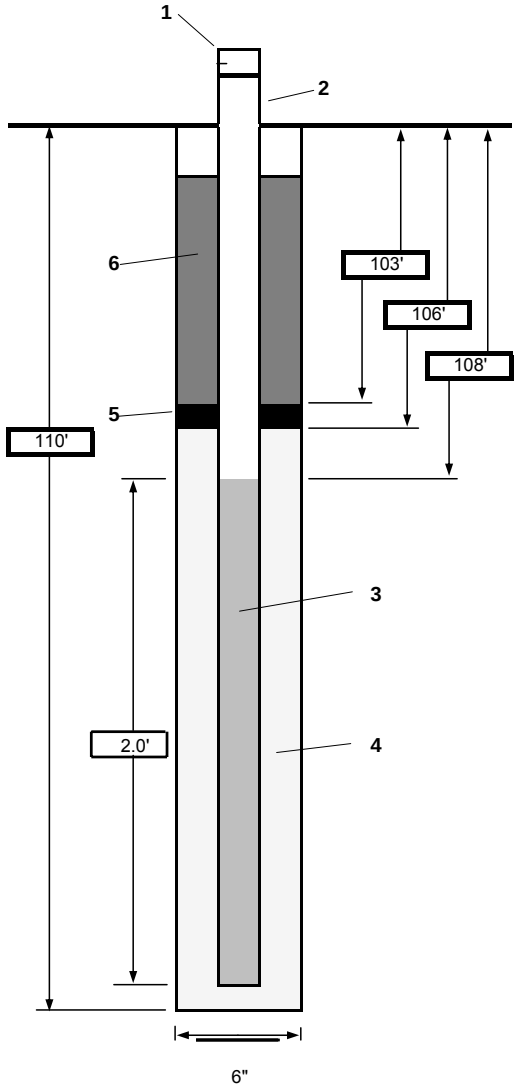
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF — LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained — START: 8/09/2004 — END: 8/09/2004 — LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments: Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-105	SHEET 1	OF 1

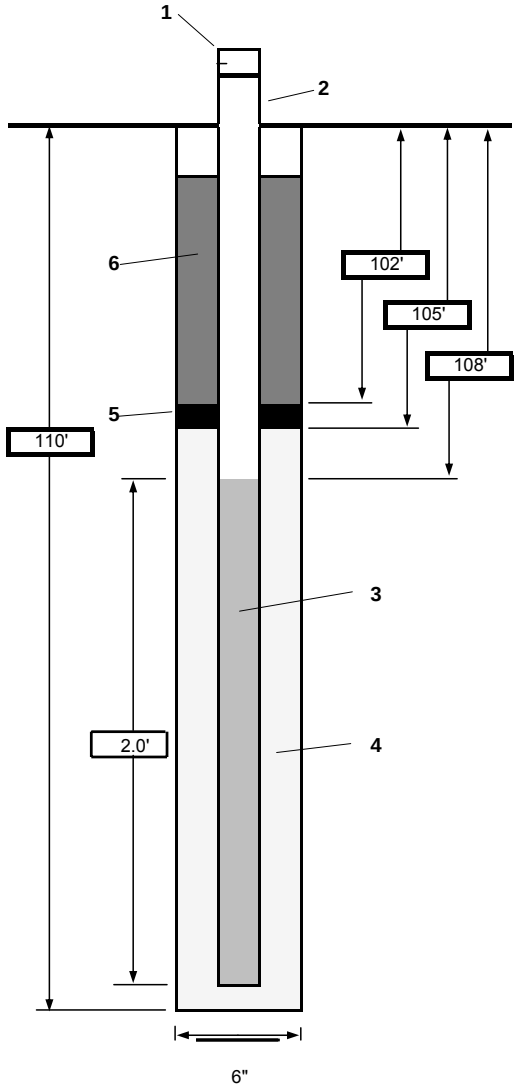
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/10/2004 END: 8/10/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
	a) Quantity used	1.5 (50lb bags)
5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-106	SHEET 1	OF 1

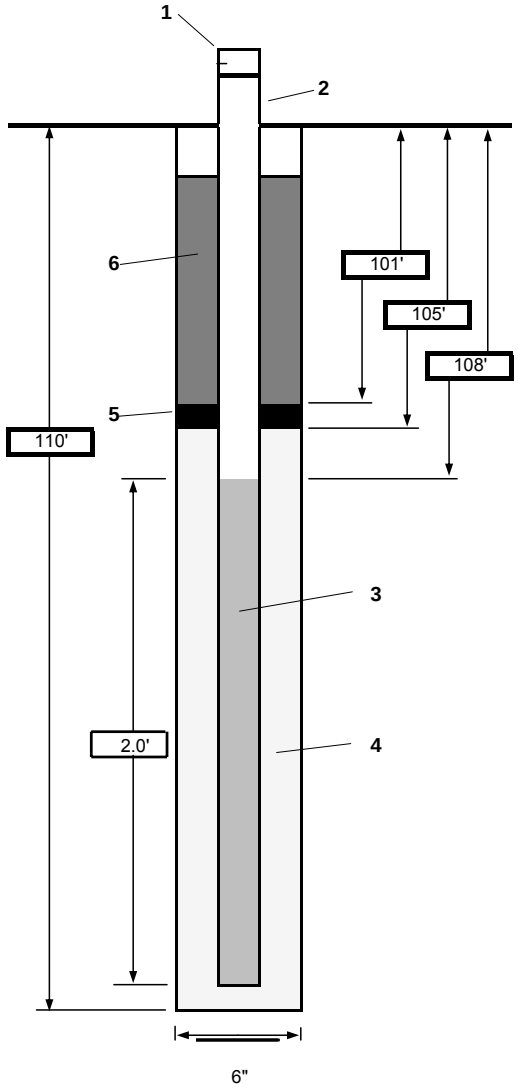
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/07/2004 END: 8/07/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
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3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
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5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-107	SHEET 1	OF 1

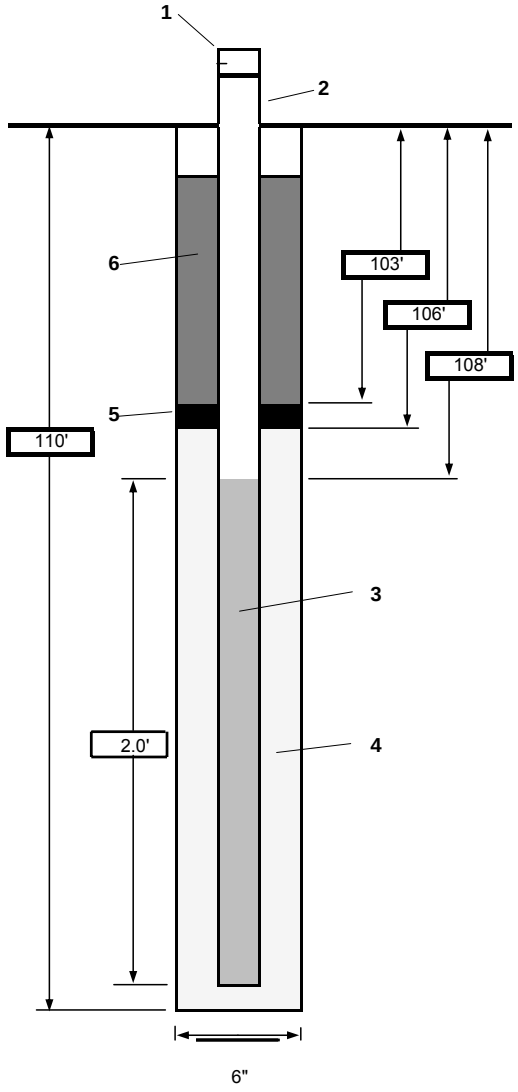
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/07/2004 END: 8/07/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
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	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-108	SHEET 1	OF 1

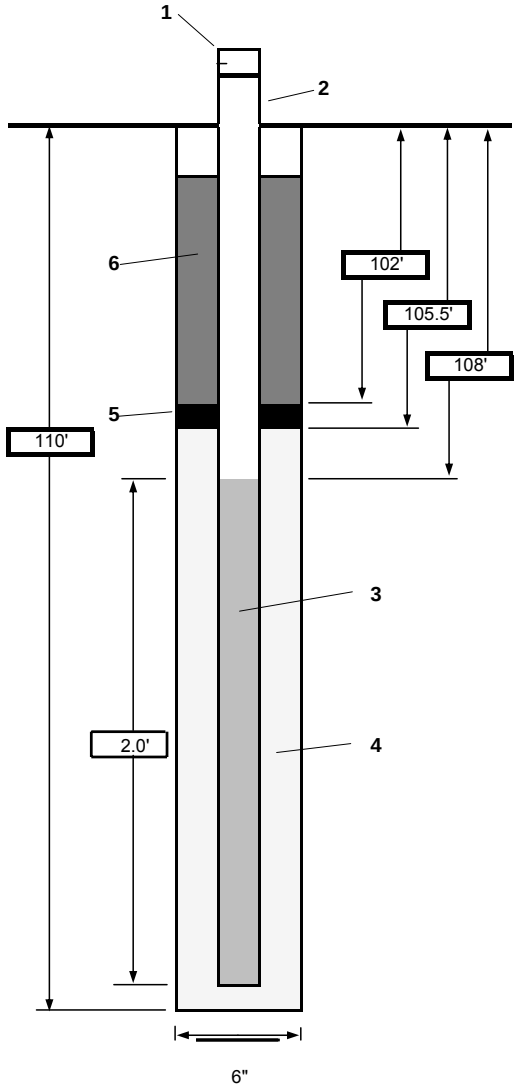
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/07/2004 END: 8/07/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
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	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-109	SHEET 1	OF 1

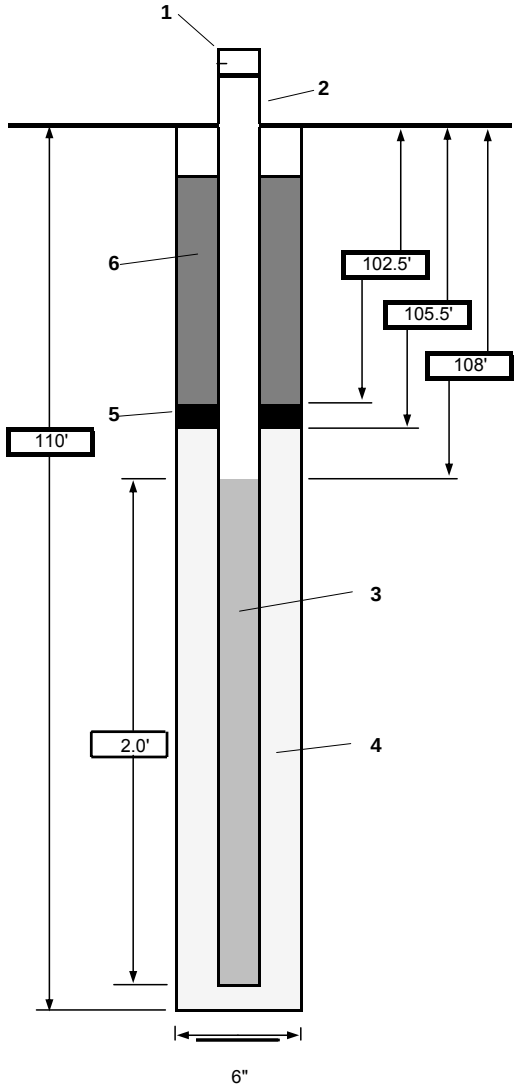
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/05/2004 END: 8/05/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
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	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

PROJECT NUMBER	WELL NUMBER		
283092	BD-110	SHEET 1	OF 1

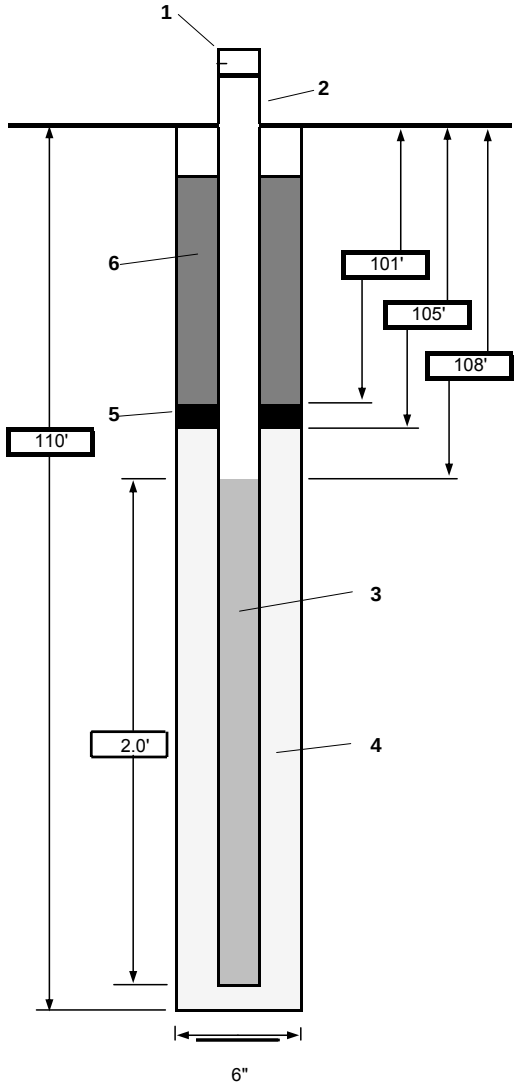
WELL COMPLETION DIAGRAM

PROJECT : Cecil Field / NFF LOCATION : Jacksonville, Florida

DRILLING CONTRACTOR : Prosonic Drilling Corporation, Florida License No. 7091

DRILLING METHOD AND EQUIPMENT USED : Truck-Mounted Rotosonic Rig

WATER LEVELS : Not obtained START: 8/05/2004 END: 8/05/2004 LOGGER : Jim Baker



1-	Top of casing elevation	Not obtained
2-	Dia./type of well casing	1-inch diameter Sch. 80 PVC
3-	Type/slot size of screen	0.010-inch machine slotted Sch. 80 PVC
4-	Type screen filter	20/30 sieve size silica sand
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5-	Type of seal	3/8-inch barroid bentonite chips
	a) Quantity used	25lbs (1/2 50lb bag)
	b Hydration time	1.0 hour
6-	Grout	Type I/II Portland neat cement
	a) Method of placement	1-inch inside diameter tremie pipe
	b) Casing grout weight	> 13.2 lbs per gallon
	Development method	Waterra Hydrolift II pump
7-	Development time	Approx. 60 minutes
	Estimated purge volume	Approx. 10 gallons

Comments Well purged until sediment free

Appendix F

Material Specifications for AS/BS Well Vaults, Backfill Material and HDPE Underground Compressed Air Piping

AGVIQ ENVIRONMENTAL SERVICES
CH2M HILL JOINT VENTURE II

TRANSMITTAL: **283092-0101**

To: NAVFAC EFD SOUTH
PO Box 139/NAS JAX Bldg. 13
Jacksonville, FL 32212-0139

From: AGVIQ/CH2MHILL – JV II
115 Perimeter Ctr. Place Suite 700
ATLANTA, GA 30346-1278

Attn:

Date: October 21, 2004

Contract: N62467-03-D-0260

CTO: North Fuel Farm Remedial Action – Task Order 0001

Re: Submittal Document No. 283092-SD-18-1610

We Are Sending You: Material specifications for limerock. Limerock will be used during installation of the flush-mounted well head covers.

Quantity	Description
1	Limerock: LBR value, maximum dry density, optimum moisture.

If material received is not as listed, please notify us at once

Remarks: Please respond with action APPROVED or DISAPPROVED with comments.

Copy To: TO 0001 Project File

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURE'S CERTIFICATES OF COMPLIANCE FOR APPROVAL

It is hereby certified that the (article) (material) (equipment) shown and marked in this submittal is that proposed to be incorporated with the Contract Number N62467-03-R-0260, is in compliance with the contract drawings and specifications, can be installed in the allocated spaces and is submitted for government approval. Government approval of proposed variation, if any, is recommended.

Certified by Submittal Reviewer: DATE:

Certified by QC Manager: R. Eshop DATE: 21-OCT-04

(READ INSTRUCTIONS ON THE REVERSE SIDE PRIOR TO INITIATING THIS FORM)

1. REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(THIS SECTION TO BE INITIATED BY THE CONTRACTOR)*

FROM:	DATE:	CONTRACT NO.
AGVIQ/CH2M HILL – JV II 115 PERIMETER CENTER PLACE SUITE 700 ATLANTA, GA 30346-1278	21-OCT-04	N62467-03-D-0260
TO: NAVFAC EFD SOUTH PO Box 139/NAS JAX Bldg. 13 Jacksonville, FL 32212-0139	☒ New Submittal	**SUBMITTAL NO.** **283092-SD-18-1610**
VIA: Electronic submission	☐ Resubmittal	**PREVIOUS SUBMITTAL. NO.**

SPECIFICATION SECTION NO. *(COVER ONLY ONE SECTION WITH EACH TRANSMITTAL)*
01012 - Remediation System Installation and Performance

PROJECT TITLE AND LOCATION
Installation, Operation, Maintenance and Monitoring of AS/BS/SVE System
North Fuel Farm Area Remedial Action

ADDITIONAL ENCLOSURES TO

ADDITIONAL COPIES TO

ITEM NO. a.	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model, number, ect.)* b.	MFG. OR CONTR. CAT., CURVE, DRAWING OR BROCHURE NO. *(SEE INSTRUCTION NO. 1)* c.	NO. OF COPIES d.	SPECIFICATION PARA NO. e.	DRAWING SHEET, PLATE OR FILE NO. f.	FOR CONTRACTOR USE CODE g.	ROICC USE ONLY ACTION CODE h.
1	Well Heads and Covers: Limerock (LBR value, maximum dry density, optimum moisture)	Material Data	1				

DISTRIBUTION REQUESTED *(ATTACH ADDITIONAL SHEET, IF NECESSARY)*

NAME AND SIGNATURE OF CONTRACTOR:

NAME / SIGNATURE OF SUBCONTRACTOR:
N/A

II. ROICC ACTION *(THIS SECTION WILL BE USED BY THE APPROVING AUTHORITY ONLY)*

ACTION CODES: THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED: (A code letter will be inserted for each item in the column h, section 1 above)

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B – ACCEPTED AS NOTED ON DRAWINGS. RESUBMISSION NOT REQUIRED

C - ACCEPTED, EXCEPT AS NOTED ON THE DRAWINGS. REFER TO ATTACHED SHEET. RESUBMISSION REQUIRED.

D - WILL BE RETURNED BY SEPARATED CORRESPONDENCE.

E - DISAPPROVED. SEE ATTACHED SHEET.

NOTE: Approval of items does not relieve the subcontractor from complying with all the requirements of the contract plans and specifications.

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

CONRAD YELVINGTON
DISTRIBUTORS, INC.

October 21, 2004

Agviq Environmental Services
6219 Authority Ave.
Jacksonville, Fl 32221

Attn: Randy Dumaop

Ph: 904-777-4812x226
Fx: 904-777-4262

Dear Mr. Dumaop:

Ref: DOT Cert. Limerock Base FDOT Source #26-100
Proj: North Fuel Farm Cecil Commerce Center Loop Road Jacksonville, Florida

This letter is to certify the material referenced above, meets or exceeds the contract requirements and FDOT Section 911

Limerock Base:

LBR Value	128pcf
Maximum Dry Density	118 pcf
Optimum Moisture	11.9%

Should you have any questions, please do not hesitate to contact this office.

Respectfully,

Kim Thompson
VP of Sales & Quality Control

SECTION 911
LIMEROCK MATERIAL FOR BASE AND STABILIZED BASE

911-1 General.

This Section governs materials to be used on construction of limerock base and limerock stabilized base.

911-2 Furnishing of Material.

Except as might be specifically shown otherwise, all limerock material and the sources thereof shall be furnished by the Contractor. Approval of mineral aggregate sources shall be in accordance with 6-3.3. Any limerock material occurring in State-furnished borrow areas shall not be used by the Contractor in constructing the base, unless permitted by the plans or other Contract Documents.

911-3 Composition.

The minimum of carbonates of calcium and magnesium in the limerock material shall be 70%. The maximum percentage of water-sensitive clay mineral shall be 3. Determination shall be at the option of the Engineer.

911-4 Liquid Limit and Plasticity Requirements.

911-4.1 Material for Limerock Base: The liquid limit shall not exceed 35 and the material shall be non-plastic.

911-4.2 Material Used in Limerock Stabilized Base: The liquid limit shall not exceed 35 and the plastic index shall not exceed ten.

911-5 Mechanical Requirements.

911-5.1 Deleterious Material: Limerock material shall not contain cherty or other extremely hard pieces, or lumps, balls or pockets of sand or clay size material in sufficient quantity as to be detrimental to the proper bonding, finishing, or strength of the limerock base.

911-5.2 Gradation and Size Requirements:

911-5.2.1 For Limerock Base: At least 97% (by weight) of the material shall pass a 3 1/2 inch [90 mm] sieve and the material shall be graded uniformly down to dust. The fine material shall consist entirely of dust of fracture. All crushing or breaking-up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.

911-5.2.2 For Limerock Stabilized Base: For this use the limerock material shall meet the requirements of 911-5.2.1 except that 97% shall pass the 1 1/2 inch [37.5 mm] sieve.

911-6 Limerock Bearing Ratio Requirements.

Limerock material used in construction of limerock base shall have an average LBR value of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.

AGVIQ
ENVIRONMENTAL SERVICES
CH2M HILL
JOINT VENTURE II

TRANSMITTAL: **283092-0102**

To: NAVFAC EFD SOUTH
PO Box 139/NAS JAX Bldg. 13
Jacksonville, FL 32212-0139

From: AGVIQ/CH2MHILL – JV II
115 Perimeter Ctr. Place Suite 700
ATLANTA, GA 30346-1278

Attn:

Date: October 22, 2004

Contract: N62467-03-D-0260

CTO: North Fuel Farm Remedial Action – Task Order 0001

Re: Submittal Document No. 283092-SD-18-1615

We Are Sending You: Material specifications for limerock. Limerock will be used for construction of a temporary road and also an alternate source for flush-mounted well head covers.

Quantity	Description
1	Limerock: Specification certification and LBR Data.

If material received is not as listed, please notify us at once

Remarks: Please respond with action APPROVED or DISAPPROVED with comments.

Copy To: TO 0001 Project File

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURE'S CERTIFICATES OF COMPLIANCE FOR APPROVAL

It is hereby certified that the (article) (material) (equipment) shown and marked in this submittal is that proposed to be incorporated with the Contract Number N62467-03-R-0260, is in compliance with the contract drawings and specifications, can be installed in the allocated spaces and is submitted for government approval. Government approval of proposed variation, if any, is recommended.

Certified by Submittal Reviewer: DATE:

Certified by QC Manager: DATE: 10/22/04

(READ INSTRUCTIONS ON THE REVERSE SIDE PRIOR TO INITIATING THIS FORM)

1. REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(THIS SECTION TO BE INITIATED BY THE CONTRACTOR)*

FROM:	DATE:	CONTRACT NO.
AGVIQ/CH2M HILL – JV II 115 PERIMETER CENTER PLACE SUITE 700 ATLANTA, GA 30346-1278	22-OCT-04	N62467-03-D-0260
TO: NAVFAC EFD SOUTH PO Box 139/NAS JAX Bldg. 13 Jacksonville, FL 32212-0139	☒ New Submittal	**SUBMITTAL NO.** **283092-SD-18-1615**
VIA: Electronic submission	☐ Resubmittal	**PREVIOUS SUBMITTAL. NO.**

SPECIFICATION SECTION NO. *(COVER ONLY ONE SECTION WITH EACH TRANSMITTAL)*
01012 - Remediation System Installation and Performance

PROJECT TITLE AND LOCATION
Installation, Operation, Maintenance and Monitoring of AS/BS/SVE System
North Fuel Farm Area Remedial Action

ADDITIONAL ENCLOSURES TO

ADDITIONAL COPIES TO

ITEM NO. a.	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model, number, ect.)* b.	MFG. OR CONTR. CAT., CURVE, DRAWING OR BROCHURE NO. *(SEE INSTRUCTION NO. 1)* c.	NO. OF COPIES d.	SPECIFICATION PARA NO. e.	DRAWING SHEET, PLATE OR FILE NO. f.	FOR CONTRACTOR USE CODE g.	ROICC USE ONLY ACTION CODE h.
1	Temporary Road and alternate source for well head covers: Limerock (Specification certification and LBR Data)	Material Data	1				

DISTRIBUTION REQUESTED *(ATTACH ADDITIONAL SHEET, IF NECESSARY)*

NAME AND SIGNATURE OF CONTRACTOR:

NAME / SIGNATURE OF SUBCONTRACTOR:
N/A

II. ROICC ACTION *(THIS SECTION WILL BE USED BY THE APPROVING AUTHORITY ONLY)*

ACTION CODES: THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED: (A code letter will be inserted for each item in the column h, section 1 above)

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NOTE: Approval of items does not relieve the subcontractor from complying with all the requirements of the contract plans and specifications.

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

TELEPHONE (352) 493-1447 FAX (352) 493-9943

LIMEROCK INDUSTRIES, INC
PO DRAWER 790
CHIEFLAND, FL 32644

October 22, 2004

Aggregate Products
P.O. Box 68
Greencove Springs, Florida 32043

RE: Limerock Material Certification
AGVIQ Environmental Services
North Fuel Farm at Cecil Field

Dear Bob:

Limerock Industries, Inc. certifies that the limerock material produced at our Newberry Plant, Florida DOT Mine number 26-098 meets or exceeds all specifications of Section 911, Florida Department of Transportation, standard specifications for road and bridge construction.

I have attached a copy of our latest test results. Please contact me if additional information is required.

Cordially,

Limerock Industries, Inc.

Jolene Bass

Attachment

Cal-Tech Testing, Inc.

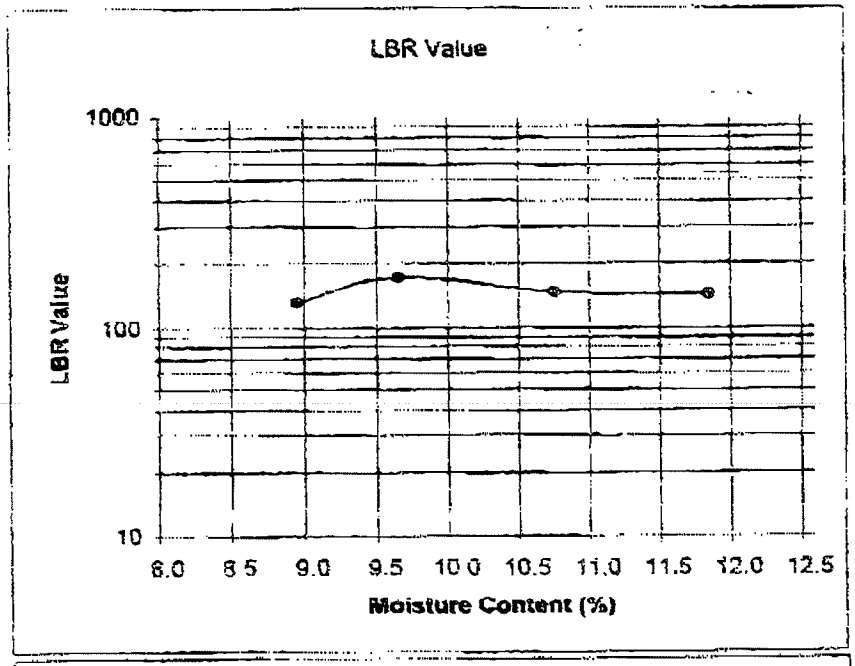
• Engineering P.O. Box 1625 - Lake City, FL 32056-1625 - Tel(386)755-3833 - Fax(386)752-5455

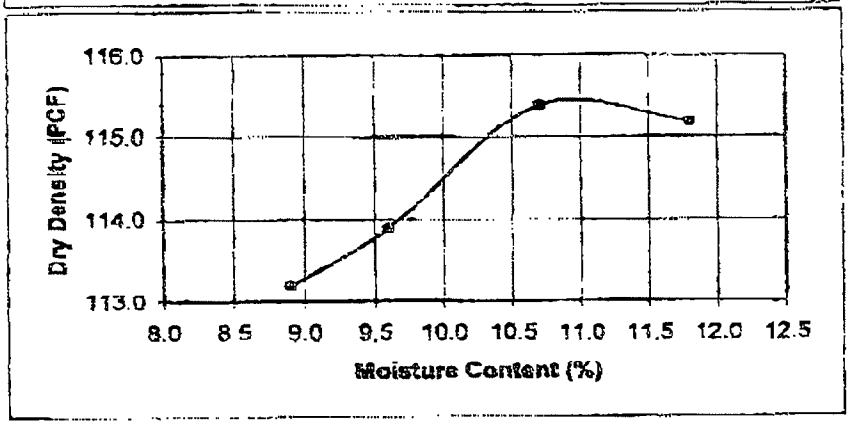
• Geotechnical 6919 Distribution Ave. S., Unit #5, Jacksonville, FL 32257 - Tel(904)262-4046 - Fax(904)4047

• Environmental Laboratories

REPORT OF LIMEROCK BEARING RATIO (FM-5-515) and MODIFIED PROCTOR (ASTM D-1557, AASHTO-T180)

Client:	Limerock Industries, Inc. PO Drawer 790 Chiefland, Florida 32644-0790	Mine No:	26-098
Project Name:	FDOT Mine #26-098	Date:	10/15/2004
Project Location:	Newberry, Florida	Lab No:	6861
Contractor:	Limerock Industries, Inc.		





LBR DATA

Sample No.:	2-40-04
LBR Value:	173
Max. Dry Density:	115.5
Optimum Moisture:	11.0
% Carbonates:	N/A
% Pass 3 1/2" Sieve:	100%
% Pass No. 4 Sieve:	47%
Liquid Limits:	Not Available
Plasticity Index:	Non Plastic

The test results presented in this report are specific only to the samples tested at the time of testing. The test was performed in accordance with generally accepted methods and standards. Since material conditions can vary between test locations and change with time, sound judgement should be exercised with regard to the use and interpretation of the data.

Linda Creamer

Linda M. Creamer
President - CEO

Reviewed By:

Date: 10/15/04

FL Registration No: 52612

Sample Description:	Limerock		
Sample Location:	Stockpile		
Proposed Use:	Base		
Sampled By:	PDJL	Date:	10/9/2004
Delivered to Lab:	CTMS	Date:	10/11/2004
Tested By:	CTMA	Date:	10/15/2004
cc:	1cc: File 1cc: Client SCALED		

TRANSMITTAL: **283092-0100**

To: NAVFAC EFD SOUTH
PO Box 139/NAS JAX Bldg. 13
Jacksonville, FL 32212-0139

From: AGVIQ/CH2MHILL – JV II
115 Perimeter Ctr. Place Suite 700
ATLANTA, GA 30346-1278

Attn:

Date: October 13, 2004

Contract: N62467-03-D-0260

CTO: North Fuel Farm Remedial Action – Task Order 0001

Re: Submittal Document No. 283092-SD-02-100

We Are Sending You: Product technical specifications for well heads and covers proposed for installation on air sparge and biosparge wells at the North Fuel Farm AS/BS/SVE system. The existing design for well head protection requires installation of an 8-inch diameter PVC riser with end cap. The proposed well head cover design would provide protection of well heads in a flush mounted configuration that is rated for light traffic.

Quantity	Description
1	Well Heads and Covers: product technical specifications and installation detail

If material received is not as listed, please notify us at once

Remarks:

Copy To: TO 0001 Project File

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	Certified by Submittal Reviewer: DATE: Certified by QC Manager: E. Blum DATE: 10/13/04

(READ INSTRUCTIONS ON THE REVERSE SIDE PRIOR TO INITIATING THIS FORM)

1. REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(THIS SECTION TO BE INITIATED BY THE CONTRACTOR)*

FROM:	DATE:	CONTRACT NO.
AGVIQ/CH2M HILL – JV II 115 PERIMETER CENTER PLACE SUITE 700 ATLANTA, GA 30346-1278	13-Oct-04	N62467-03-D-0260
TO:		**SUBMITTAL NO.**
NAVFAC EFD SOUTH PO Box 139/NAS JAX Bldg. 13 Jacksonville, FL 32212-0139	☒ New Submittal	283092-SD-02-100
VIA:		**PREVIOUS TRANS. NO.**
Electronic submission	☐ Resubmittal	

SPECIFICATION SECTION NO. *(COVER ONLY ONE SECTION WITH EACH TRANSMITTAL)*	PROJECT TITLE AND LOCATION
01012 - Remediation System Installation and Performance	Installation, Operation, Maintenance and Monitoring of AS/BS/SVE System North Fuel Farm Area Remedial Action
ADDITIONAL ENCLOSURES TO	**ADDITIONAL COPIES TO**

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model, number, ect.)*	MFG. OR CONTR. CAT., CURVE, DRAWING OR BROCHURE NO. *(SEE INSTRUCTION NO. 1)*	NO. OF COPIES	SPECIFICATION PARA NO.	DRAWING SHEET, PLATE OR FILE NO.	FOR CONTRACTOR USE CODE	ROICC USE ONLY ACTION CODE
a.	b.	c.	d.	e.	f.	g.	h.
1	Well Heads and Covers: DFW by NDS D109 Meter Boxes	Product Data	1	3.5	Exhibits A, B		

DISTRIBUTION REQUESTED *(ATTACH ADDITIONAL SHEET, IF NECESSARY)*	NAME AND SIGNATURE OF CONTRACTOR: J. W. Colella	NAME / SIGNATURE OF SUBCONTRACTOR: N/A

II. ROICC ACTION *(THIS SECTION WILL BE USED BY THE APPROVING AUTHORITY ONLY)*

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ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

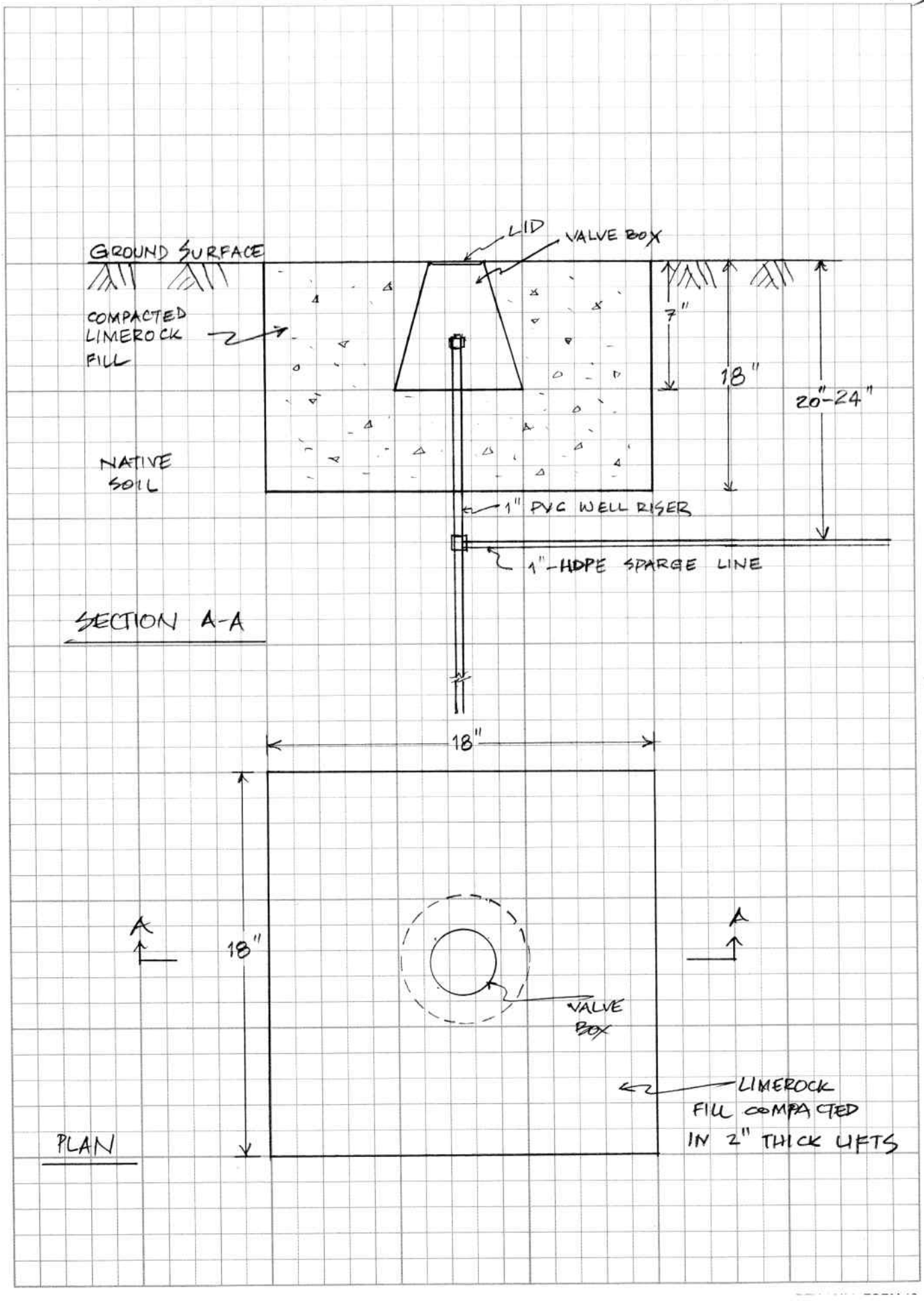
CH2MHILL

SUBJECT VALVE-BOX INSTALLATION DETAIL

BY S. NAIK

SHEET NO. 1 of 1 DATE 10/27/04

PROJECT NO. 283092 NFF-CECIL FIELD



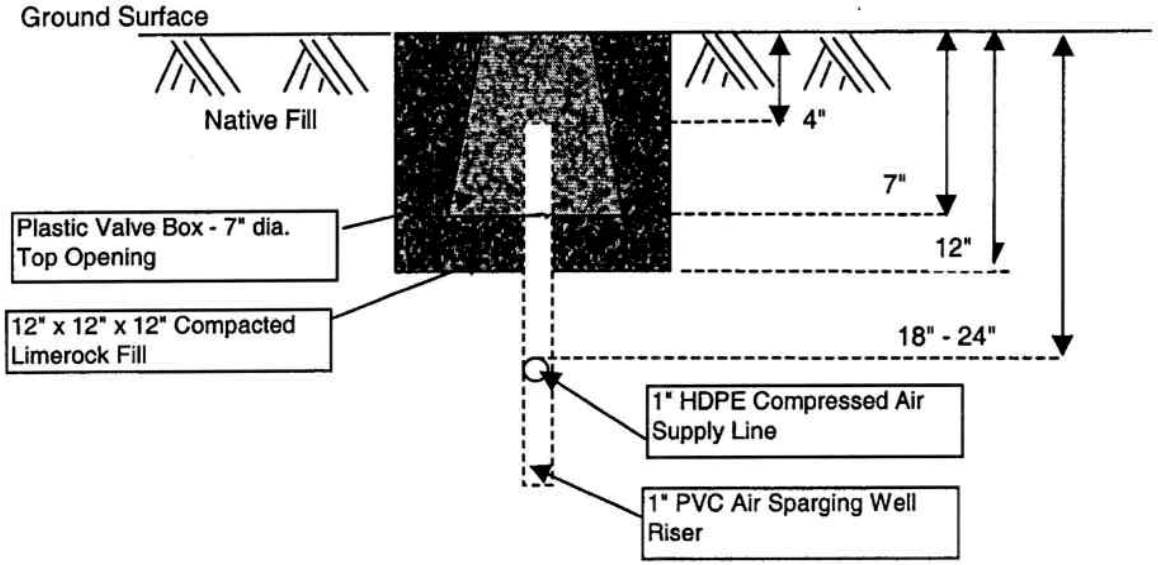


Exhibit B - Cross-Sectional Detail of Valve Box at Air Sparge Well Head

SPLICE/VALVE BOX
S1010

Greenbelt Application G
Load: Static, 3,000 lbs

Applications:

Greenbelt areas for telephony, power, CATV, DOT and other applications. Turf and irrigation for residential, commercial, golf courses, and parks and recreation.

Features & Benefits:

- Built tough to last long. Heavy-duty construction minimizes side wall deflection, increasing product life.
- Easy grip twist lock cover, won't fall off. Keeps debris out for clutter-free access.
- HDPE is U.V. stabilized for greater strength and life through a wide range of temperature extremes.
- All splice/valve boxes have a base flange to reduce tilting and frost heaving.
- Box and lid shipped fully assembled.
- Product palletized for easy off-loading and storage.
- Stainless steel hardware won't rust.

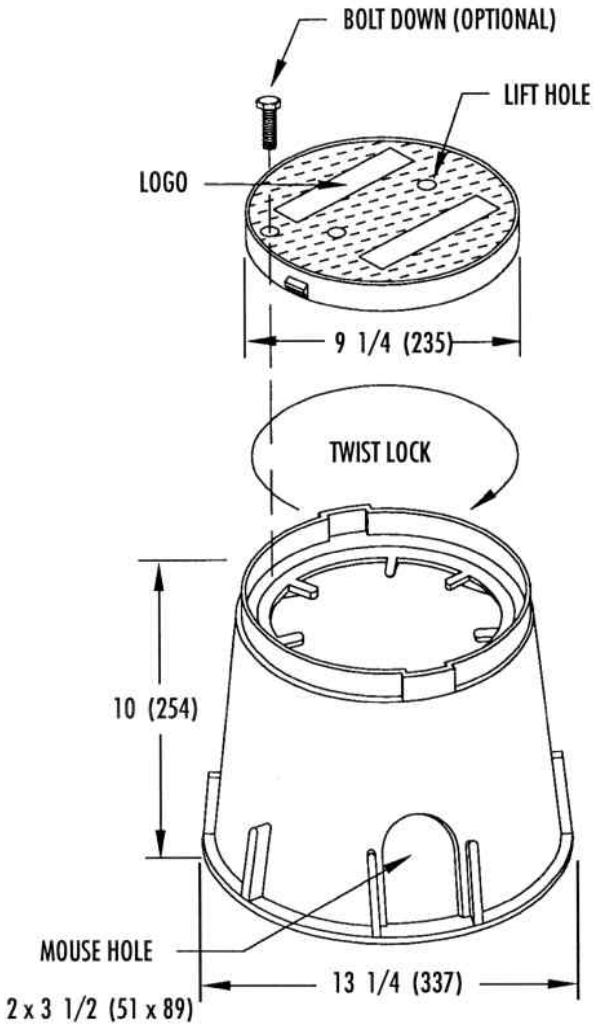
Options:

- EMS marker for quick and easy identification.
- OEM labeling available on request (molded-in identification).

Ordering Information:

Specify part number in table below. Standard cover and box color is green. Purple, grey and sand colors are also available. Consult factory for more information.

Pallet Quantity: 100



Dimensions: Inches (mm)
Weight: lbs (kg)

Part No.	Description	Material	Weight
SGB100010C20	Box, 10"X10"	HDPE	2.5 (1.1)
SGC100000EH0	Cover	HDPE	1.0 (0.5)
PCC100000E01	Cover	PC	7.0 (3.2)
0414	Extension, 20"	HDPE	6.0 (2.7)
SGA100010Y000	Box & Cover Assy.	HDPE	3.5 (1.6)

newbasis
Building Solutions for the Americas

2626 Kansas Avenue, Riverside, CA 92507 • Tel 909-787-0600 • Fax 909-787-0632 • www.newbasis.com

NDS
One source. Many solutions.

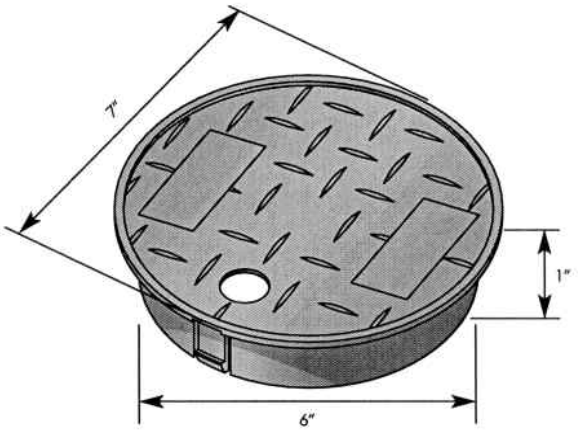
TECHNICAL SPECIFICATIONS

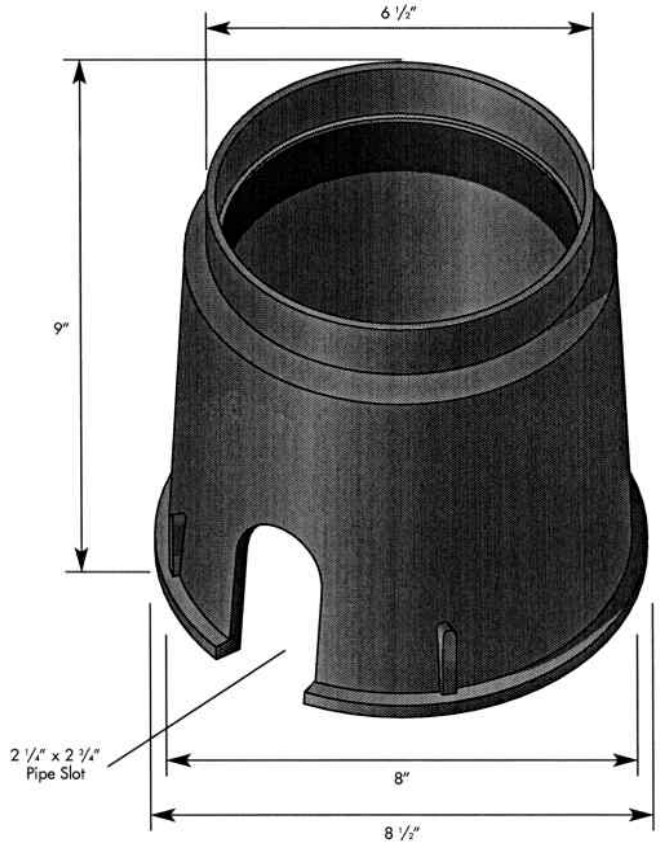
DFW by NDS D109 Meter Boxes

DFW BY NDS METER BOX SPEC **Standard Commercial Grade**

DFW by NDS 6" round meter boxes and covers are injection molded of recycled polyolefin material with a melt index between 10-12. Coloring and UV stabilizers are added, along with processing lubricants when needed.

The 6" round body shall be tapered and have a minimum wall thickness of .13". The body shall have a double wall at the top cover seat area with a minimum thickness of .125". The bottom of the body shall have a .25" flange. The 6" round cover shall have an average thickness of .15".





Product is not to be installed in concrete and is not to be used in vehicular applications. Weights and dimensions are nominal.

Part Number	Box Description	Cover Description – Marking	Cover Type	Color (Box/Cover)	Weight (lbs)
Box & Cover					
D109-B	6" Round Box	Overlapping Cover - Water Meter	Solid Plastic	Black/Black	1.21
D109-P	6" Round Box	Overlapping Cover - Reclaimed Water	Solid Plastic	Purple/Purple	1.21
Cover Only					
D109-BL		6" Round Overlapping Cover - Water Meter	Solid Plastic	Black	0.40
D109-PL		6" Round Overlapping Cover - Reclaimed Water	Solid Plastic	Purple	0.40
Box Only					
D109-B/O	6" Round Box			Black	0.80

Call for additional options and availability

Properties of Unfoamed Resin		
	ASTM Test Method	**Polyolefin**
Tensile Strength, Yield	ASTM D 638	3400-4400 PSI
Density	ASTM D 792	.900-.956
Notched Izod Impact Strength	ASTM D 256	1.5-15 ft. lbs/in.
Heat Deflection Temperature @ 66 PSI, Degrees F.	ASTM D 648	150-212 degrees F.

Shipping Configuration	
	Box & Cover
Pallet Qty.	600
Pieces Per Stack	24
Stacks Per Pallet	25
Pallet Dimensions	42"x 48"x 53"

NDS

NDS Customer Service
851 N. Harvard Ave
Lindsay, CA 93247
Phone: (800) 726-1994
(559) 562-9888
Fax: (800) 726-1998
(559) 562-4488

www.NDSPRO.com

Typical HDPE Pipe Sizes

Most high-density polyethylene pipe is made to the following dimensions. At present PE 3408 is the resin used for most applications

Pipe Size Nominal	Actual Ratio	Dimension Ratio	Pressure rating, 73°F psi	Minimum Wall	Average ID	Weight lbs./ft
3/4"	1.050"	DR 11	160	0.095"	0.86"	0.12
1"	1.315"	DR 11	160	0.12"	1.075"	0.19
1.5"	1.900"	DR 11	160	0.173"	1.55"	0.41
2"	2.375"	DR 7	267	0.339"	1.670"	0.943
2"	2.375"	DR 9	200	0.264"	1.826"	0.762
2"	2.375"	DR 11	160	0.216"	1.926"	0.639
2"	2.375"	DR 13.5	128	0.176"	2.009"	0.531
2"	2.375"	DR 15.5	110	0.153"	2.057"	0.467
2"	2.375"	DR 17	100	0.140"	2.084"	0.429
3"	3.500"	DR 7	267	0.500"	2.460"	2.047
3"	3.500"	DR 9	200	0.389"	2.691"	1.656
3"	3.500"	DR 11	160	0.318"	2.839"	1.387
3"	3.500"	DR 13.5	128	0.259"	2.961"	1.153
3"	3.500"	DR 15.5	110	0.226"	2.961"	1.153
3"	3.500"	DR 17	100	0.206"	3.088	0.932
4"	4.500"	DR 7	267	0.643"	3.163"	3.384
4"	4.500"	DR 9	200	0.500"	3.460"	2.737
4"	4.500"	DR 11	160	0.409"	3.649"	2.294
4"	4.500"	DR 13.5	128	0.333"	3.807"	1.906
4"	4.500"	DR 15.5	110	0.290"	3.897"	1.678
4"	4.500"	DR 17	100	0.265"	3.949"	1.54
4"	4.500"	DR 21	80	0.214"	4.055"	1.262
4"	4.500"	DR 26	64	0.173"	4.140"	1.03
4"	4.500"	DR 32.5	51	0.138"	4.213"	0.831

Typical Sizes and Dimensions for Iron Pipe Size (IPS)
PE3408 High Density Polyethylene (HDPE) Pipe

Pressure Rating		DR 7 (265psi)			DR 9 (200psi)			DR 11 (160psi)			DR 13.5 (128psi)			DR 15.5 (110psi)		
Nominal Size	Actual O.D.	Min. wall	Average I.D.	Weight lb/lf	Min. wall	Average I.D.	Weight lb/lf	Min. wall	Average I.D.	Weight lb/lf	Min. wall	Average I.D.	Weight lb/lf	Min. wall	Average I.D.	Weight lb/lf
2"	2.375"	0.339"	1.670"	0.943	0.264"	1.826"	0.762	0.216"	1.926"	0.639	0.176"	2.009"	0.531	0.153"	2.057"	0.467
3"	3.500"	0.500"	2.460"	2.047	0.389"	2.691"	1.656	0.318"	2.839"	1.387	0.259"	2.961"	1.153	0.226"	3.030"	1.015
4"	4.500"	0.643"	3.163"	3.384	0.500"	3.460"	2.737	0.409"	3.649"	2.294	0.333"	3.807"	1.906	0.290"	3.897"	1.678
5"	5.375"	---	---	---	---	---	---	0.489"	4.358"	3.272	---	---	---	---	---	---
5"	5.563"	0.795"	3.909"	5.172	0.618"	4.278"	4.182	0.506"	4.511"	3.505	0.412"	4.706"	2.912	0.359"	4.816"	2.564
6"	6.625"	0.946"	4.657"	7.336	0.736"	5.094"	5.932	0.602"	5.373"	4.971	0.491"	5.604"	4.130	0.427"	5.737"	3.637
7"	7.125"	---	---	---	---	---	---	0.648"	5.777"	5.750	---	---	---	---	---	---
8"	8.625"	1.232"	6.062"	12.433	0.958"	6.632"	10.054	0.784"	6.994"	8.425	0.639"	7.296"	7.001	0.556"	7.469"	6.164
10"	10.750"	1.536"	7.555"	19.314	1.194"	8.266"	15.618	0.977"	8.718"	13.089	0.796"	9.094"	10.875	0.694"	9.306"	9.576
12"	12.750"	1.821"	8.962"	27.170	1.417"	9.803"	21.970	1.159"	10.339"	18.412	0.944"	10.786"	15.298	0.823"	11.038"	13.471
14"	14.000"	2.000"	9.840"	32.758	1.556"	10.764"	26.489	1.273"	11.352"	22.199	1.037"	11.843"	18.445	0.903"	12.122"	16.242
16"	16.00"	2.286"	11.245"	42.786	1.778"	12.302"	34.598	1.455"	12.974"	28.994	1.185"	13.535"	24.092	1.032"	13.853"	21.214
18"	18.00"	2.571"	12.652"	54.151	2.000"	13.840"	43.788	1.636"	14.597"	36.696	1.333"	15.227"	30.491	1.161"	15.585"	26.849
20"	20.00"	2.857"	14.057"	66.853	2.222"	15.378"	54.059	1.818"	16.219"	45.304	1.481"	16.920"	37.643	1.290"	17.317"	33.146
22"	22.00"	---	---	---	2.444"	16.916"	65.412	2.000"	17.840"	54.818	1.630"	18.610"	45.548	1.419"	19.048"	40.107
24"	24.00"	---	---	---	2.667"	18.453"	77.845	2.182"	19.461"	65.237	1.778"	20.302"	54.206	1.548"	20.780"	47.731
26"	26.00"	---	---	---	---	---	---	2.364"	21.083"	76.563	1.926"	21.994"	63.617	1.677"	22.512"	56.018
28"	28.00"	---	---	---	---	---	---	2.545"	22.706"	88.795	2.074"	23.686"	73.781	1.806"	24.244"	64.967
30"	30.00"	---	---	---	---	---	---	2.727"	24.328"	101.934	2.222"	25.378"	84.697	1.935"	25.975"	74.580
32"	32.00"	---	---	---	---	---	---	---	---	---	2.370"	27.070"	96.367	2.065"	27.705"	84.855
36"	36.00"	---	---	---	---	---	---	---	---	---	---	---	---	2.323"	31.168"	107.395
42"	42.00"	---	---	---	---	---	---	---	---	---	---	---	---	2.710"	36.363"	146.176
48.0"	48.00"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
51.5"	51.50"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
54"	54.00"	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

SUE SYSTEM

NOTE:

- Pressures are based on using water at 23°C (73°F) and are determined by using standard formulas for the industry.
- Average inside diameter calculated using nominal OD and minimum wall plus 4% for use in estimating fluid flows. Actual ID will vary.
- Service factors should be utilized to compensate for the effect of substances other than water, and for other temperatures.
- Fusion equipment rental available for all sizes.
- Other piping sizes or DR's may be available upon request.
- HDPE piping meets ASTM F 714. HDPE pipe meeting ASTM D 2513 is available upon request.

Appendix G

As-built Construction Drawings

56′-2½″

35′-11¾″

WW TANK

CONTROL ROOM

COMPRESSOR PACKAGE

N

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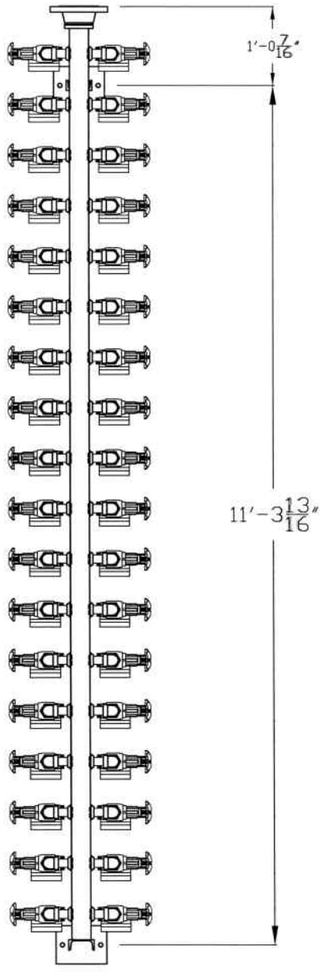
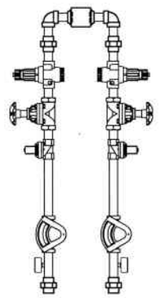
CUSTOMER: AGVIQ ENVIRONMENTAL SERVICES
PROJECT: SVE SYSTEM / CECIL FIELD

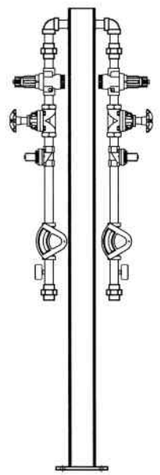
PROPOSED EQUIPMENT LAYOUT
FOR
PACKAGED TREATMENT SYSTEM

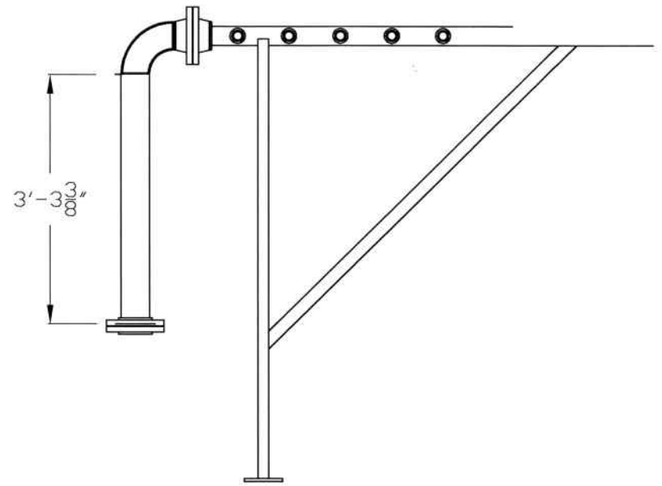
DWN BY	CHKD BY	APP'D BY	DATE	SCALE	JOB No.	DRAWING No.	REV
DB (1F)	TB (1F)	EP (1F)	AUG 31/04	NTS			0

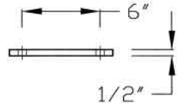
DEC 1 2005

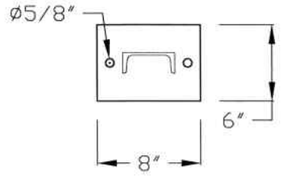












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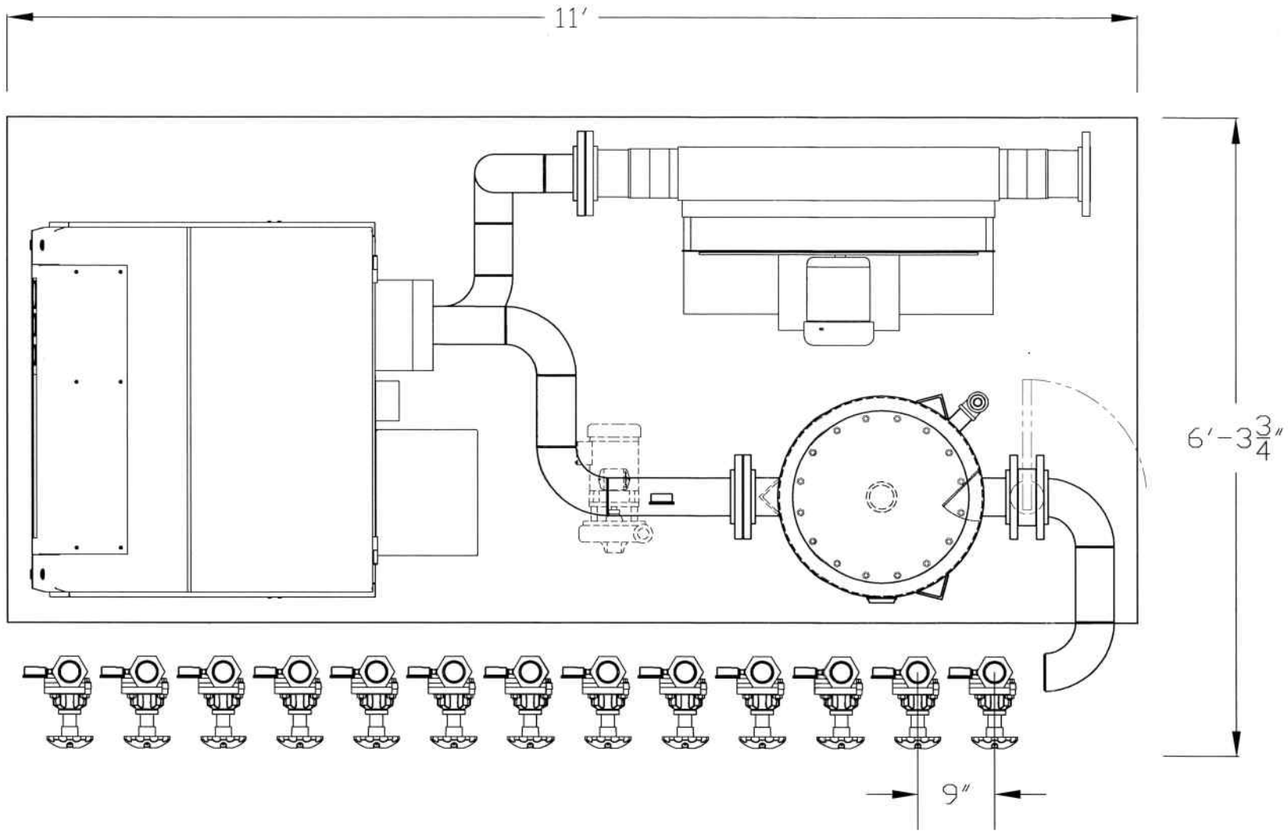
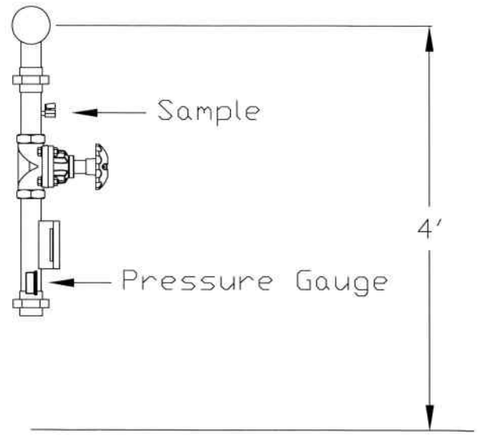
CUSTOMER	PROJECT
AGVIQ ENVIRONMENTAL SERVICES	CECIL FIELD

FINAL EQUIPMENT LAYOUT
FOR
PROPOSED AS MANIFOLD DESIGN

DWN BY	CHK'D BY	APP'D BY	DATE	SCALE	JOB No.	DRAWING No.	REV
DB (TF)	TB (TF)	EP (TF)	OCT 26/04	NTS			0

DEC 1/4/2005





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DEC 14 2005

CUSTOMER	PROJECT
AGVIQ ENVIRONMENTAL SERVICES	CECIL FIELD

PROPOSED EQUIPMENT LAYOUT
FOR
SVE SKID DESIGN

DWN BY	CHK'D BY	APP'D BY	DATE	SCALE	JOB No.	DRAWING No.	REV
DB (TF)	TB (TF)	EP (TF)	AUG 20/04	NTS			0

MASTER BILL OF MATERIAL

ITEM	QTY	DESCRIPTION
100	1	ROTARY COMPRESSOR PACKAGE – MODEL ASD-30, 30 HP – 3PH 460V – W/ROOF ENCLOSURE 134 SCFM @ 125 PSIG, 240 GAL AIR RECEIVER 200 PSIG, FILTERS, AQUAMAT 4 COLLECTION SYSTEM

ITEM	QTY	DESCRIPTION
401	214	DIAPHRAGM VALVE, GE MODEL WTCX223B1.0, 1" FNPT
402	214	PRESSURE REGULATOR, MASTER PNEUMATIC MODEL R180 VI-8, 1" FNPT
403	214	SOLENOID VALVE, BURKERT MODEL 6213LB-A20, 1" FNPT, 120VAC , NC
404	6	BUTTERFLY VALVE, CRANE MODEL 04A1061012, WAFER, ALUM BRONZE DISC, BUNA N, 4"
405	6	BALL VALVE, RUB MODEL S92, FULL PORT, BRONZE, TFE, 1" FNPT
801	214	PRESSURE GAUGE, DWYER MODEL 63060, 0-60 PSIG, 1/4" NPT LB, 2 1/2" DIAL
802	214	FLOW METER, ERDCO MODEL 3214-04T0, 0-30" HG, 1" NPT, 2-20 SCFM
900	1	LEVEL SWITCH, FLOW PLUS, 316 SS FLOATS (1513 SDT), LEVELS {L3(R)=20"} OAL=24"

ITEM	QTY	DESCRIPTION
–		

SYSTEM INTERLOCKS

ALARM	ACTION
–	–

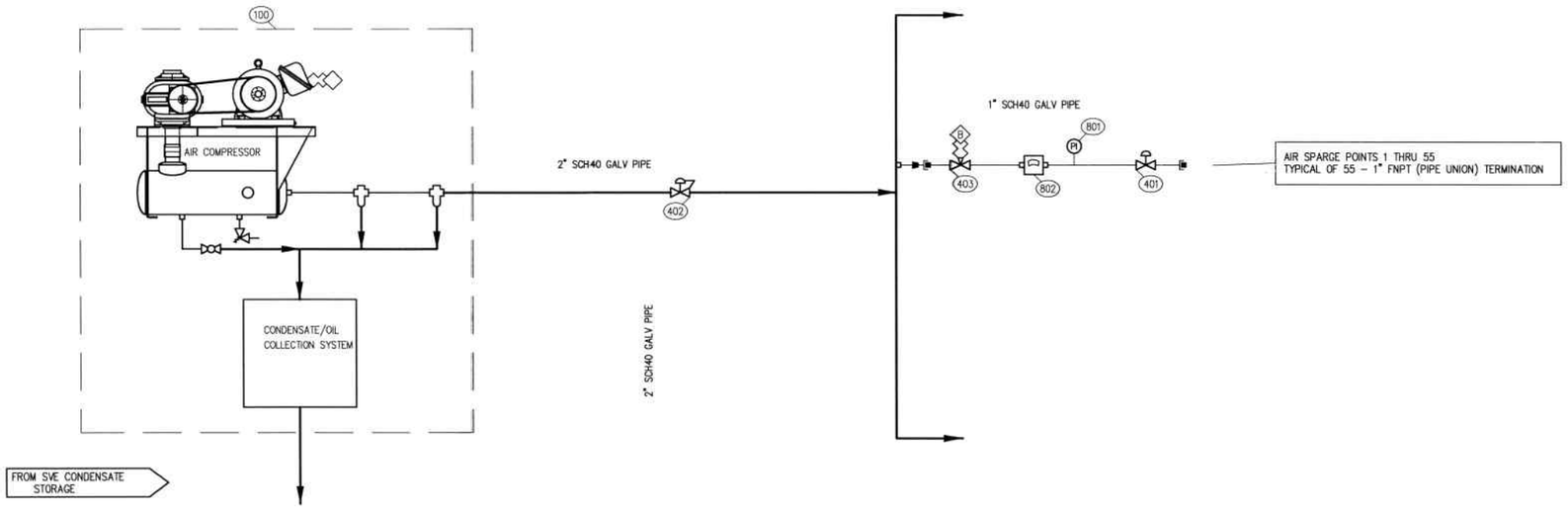
NOTES

1. ALL QUICK CONNECT FITTINGS ALUMINUM WITH BUNA-N GASKETS
2. ALL HOSE GOODYEAR PLICORD HOSE / SYNTHETIC RUBBER
3. PRIMARY SYSTEM VOLTAGE 480V 3 PHASE 60 HZ

BILL OF MATERIAL TAG LEGEND

- 1XX – SPECIALIZED PROCESS EQUIPMENT
- 2XX – STANDARD PROCESS EQUIPMENT
- 3XX – CONTROL PANELS
- 4XX – VALVES
- 5XX – LIGHTING
- 6XX – HEATING AND VENTILATION
- 7XX – NOT USED
- 8XX – INSTRUMENTATION
- 9XX – OTHER
- 0XX – NOT USED

PROCESS



ELECTRICAL TERMINATIONS

- A SOLENOID VALVE 120 VAC – NC (1-01, 1-02 ...)
- B SOLENOID VALVE 120 VAC – NC (2-01, 2-02 ...)
- C SOLENOID VALVE 120 VAC – NC (3-01, 3-02 ...)
- D SOLENOID VALVE 120 VAC – NC (4-01, 4-02 ...)
- E SOLENOID VALVE 120 VAC – NC (5-01, 5-02 ...)
- F SOLENOID VALVE 120 VAC – NC (6-01, 6-02 ...)
- G HIGH LIQUID LEVEL SHUTDOWN WASTEWATER STORAGE – NO
- H HIGH LIQUID LEVEL SHUTDOWN AIR RECEIVER – NO
- I
- J
- K
- L
- M
- N
- O
- P
- Q

PNEUMATIC TERMINATIONS

- 0 –

- BILL OF MAT'L TAG
- PNEUMATIC TAG
- ELECTRICAL TAG
- PRESSURE GAUGE
- DIFF. PRESS. GAUGE
- THERMOMETER
- GAUGE IN PANEL
- CAM FITTING OR UNION
- GATE VALVE
- BALL VALVE
- GLOBE VALVE
- SOLENOID VALVE
- RELIEF VALVE
- SWING CHECK VALVE
- PISTON CHECK VALVE
- IN-LINE CHECK VALVE
- BUTTERFLY CHECK VALVE
- DIAPHRAGM VALVE
- REGULATOR VALVE
- REGULATOR/RELIEF VALVE
- IN LINE FILTER
- Y – STRAINER
- FLOW METER
- ORIFICE PITOT TUBE SENSOR
- PT PRESSURE/VACUUM TRANSDUCER
- FS FLOW SWITCH
- LS LIQUID LEVEL SWITCH
- LSH LEVEL SENSOR – HIGH
- LSL LEVEL SENSOR – LOW
- PSD PRESSURE SENSOR – DIFFERENTIAL
- PSL PRESSURE SENSOR – LOW
- PSH PRESSURE SENSOR – HIGH
- TSH TEMPERATURE SENSOR – HIGH
- RTD RESISTANT TEMPERATURE DETECTOR
- MAIN PROCESS PIPING
- UTILITY PIPING
- FUTURE PIPING / PIPING BY OTHERS
- INST. TUBING AIR, GAS, or OIL
- PROCESS HOSE

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DEC 14 2005

CUSTOMER: AGVIQ ENVIRONMENTAL SERVICES

PROJECT: SVE SYSTEM / CECIL FIELD

PROCESS AND INSTRUMENTATION FLOW DIAGRAM

FOR

AIR SPARGE SYSTEM

DWN BY	CHK'D BY	APP'D BY	DATE	SCALE	JOB No.	DRAWING No.	REV
DB (TF)	TB (TF)	EP (TF)	AUG 25/04	NTS			0

MASTER BILL OF MATERIAL

ITEM	QTY	DESCRIPTION
100	1	VACUUM BLOWER, KAESER MODEL DB235C, 25 HP 3PH 230/460V – 4" FLEX INLET/OUTLET W/ENCLOSURE
101	1	HEAT EXCHANGER, AMERICAN INDUSTRIAL MODEL ACA6361-94386, 3 HP – 3PH 230/460V – 5" ANSI FLNG
102	1	TRANSFER PUMP, GRUNDFOS MODEL HS-100-05, 1/2 HP – 3PH 230/460V TEFC, 1-1/4" x 1"
103	1	AIR/WATER SEPARATOR, TETRASOLV MODEL MV-24, 60 GAL WORKING CAPACITY, 4" ANSI FLNG
106	2	ACTIVATED CARBON COLUMNS, TETRASOLV FILTRATION MODEL VF-10000, 6" FNPT
201	1	SILENCER / AIR FILTER, SOLBERG MODEL FS-15-200, 2" MNPT
204	1	STRAINER, VIKING MODEL F-10131IRN-20, CAST IRON / 20 MESH, 1-1/4" FNPT

ITEM	QTY	DESCRIPTION
401	13	DIAPHRAGM VALVE, GIE MODEL WTCX223B2.0, 2" FNPT
402	17	BALL VALVE, RUB MODEL S92, FULL PORT, BRONZE, TFE, 1/4" FNPT
403	1	BUTTERFLY VALVE, CRANE MODEL 02A1061012, WAFER, ALUM BRONZE DISC, BUNA N, 2"
404	1	BUTTERFLY VALVE, CRANE MODEL 06A1061012, WAFER, ALUM BRONZE DISC, BUNA N, 6"
405	1	BALL VALVE, RUB MODEL S92, FULL PORT, BRONZE, TFE, 1" FNPT
406	1	CHECK VALVE, STRATA-FLO MODEL 400, SPRING CHECK, BRONZE, 1" FNPT
802	15	VACUUM GAUGE, DWYER MODEL 63030V, 0-30" HG, 1/4" NPT LB, 2-1/2" DIAL, LIQUID FILLED
803	13	FLOW METER, ERDCO MODEL 3213-0811, 2" MNPT
804	1	TEMPERATURE TRANSMITTER, MCMASTER-CARR MODEL 38705K44 , -50~400 F, 4-20 MA RTD
805	1	PRESSURE TRANSMITTER, DWYER MODEL 604D-100, 0-100 IN, 4-20 MA
806	3	PRESSURE GAUGE, DWYER MODEL 61060, 0-60" WC, 1/4" NPT LB, 2-1/2" DIAL
807	1	MASS FLOWMETER, EPI MODEL 9840MPNH-SSS-133, 1/2" PROBE, 4-20 MA

ITEM	QTY	DESCRIPTION
900	1	LEVEL SWITCH, FLOW PLUS, 316 SS FLOATS (1513 SDT), LEVELS [L3(R)=10", L2(Y)=18", L3(B)=32"] OAL=34"

SYSTEM INTERLOCKS

ALARM	ACTION
–	–

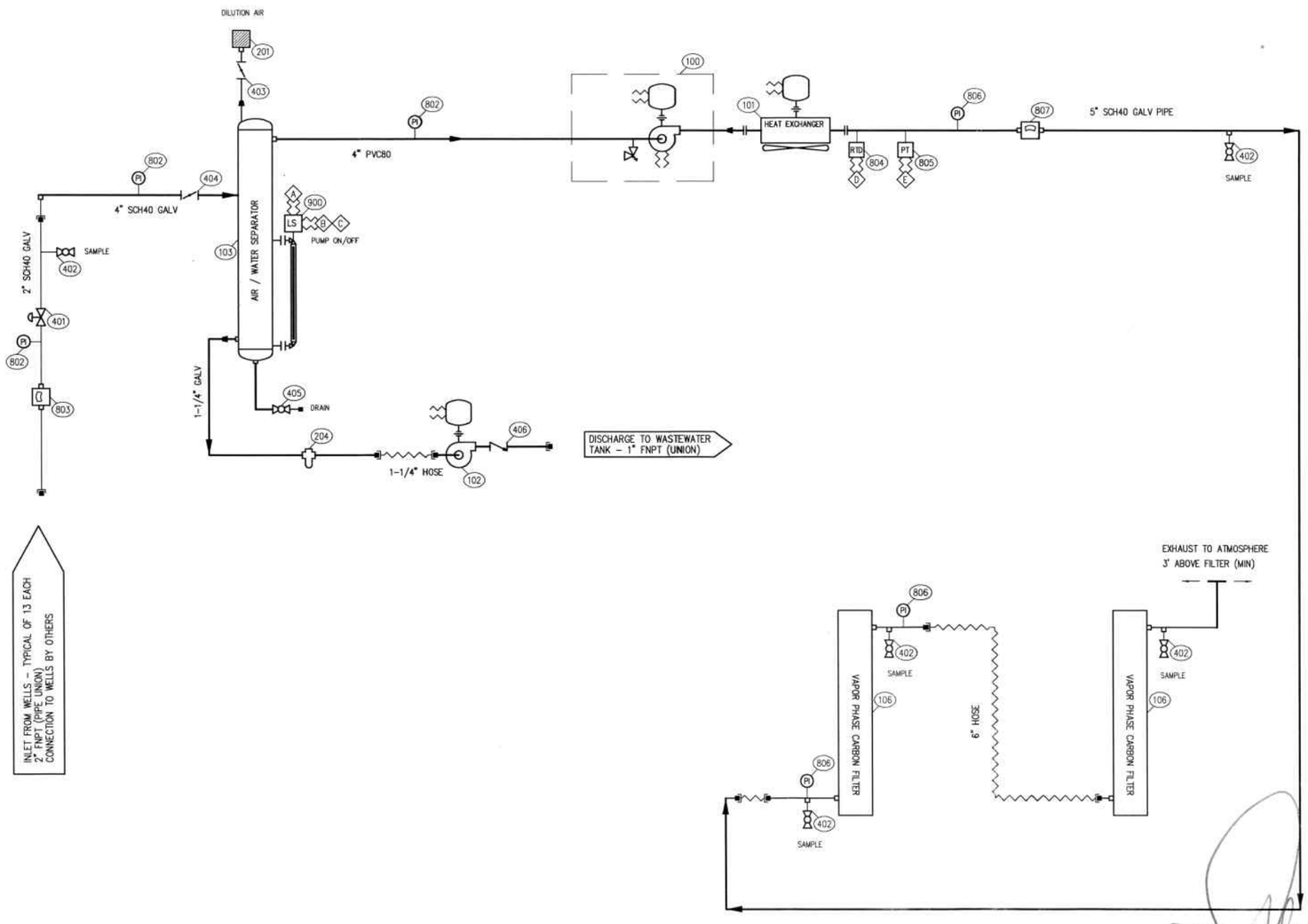
NOTES

1. ALL QUICK CONNECT FITTINGS ALUMINUM WITH BUNA-N GASKETS
2. ALL HOSE GOODYEAR PLICORD HOSE / SYNTHETIC RUBBER
3. PRIMARY SYSTEM VOLTAGE 480V 3 PHASE 60 HZ

BILL OF MATERIAL TAG LEGEND

- 1XX – SPECIALIZED PROCESS EQUIPMENT
- 2XX – STANDARD PROCESS EQUIPMENT
- 3XX – CONTROL PANELS
- 4XX – VALVES
- 5XX – LIGHTING
- 6XX – HEATING AND VENTILATION
- 7XX – NOT USED
- 8XX – INSTRUMENTATION
- 9XX – OTHER
- 0XX – NOT USED

PROCESS



DEC 14 2005

ELECTRICAL TERMINATIONS

- A – HIGH LIQUID LEVEL SHUTDOWN SEPARATOR – NO [ISR]
- B – TRANSFER PUMP ON LIQUID LEVEL SENSOR – NO [ISR]
- C – TRANSFER PUMP OFF LIQUID LEVEL SENSOR – NO [ISR]
- D – HEAT XCHG GAS TEMP – 4-20 MA RTD [ISR]
- E – PROCESS FLOW RATE – 4-20 MA [ISR]

PNEUMATIC TERMINATIONS

- 0 –

BILL OF MAT'L TAG	SWING CHECK VALVE	LIQUID LEVEL SWITCH
PNEUMATIC TAG	PISTON CHECK VALVE	LEVEL SENSOR – HIGH
ELECTRICAL TAG	IN-LINE CHECK VALVE	LEVEL SENSOR – LOW
PRESSURE GAUGE	BUTTERFLY CHECK VALVE	PRESSURE SENSOR – DIFFERENTIAL
DIFF. PRESS. GAUGE	DIAPHRAGM VALVE	PRESSURE SENSOR – LOW
THERMOMETER	REGULATOR VALVE	PRESSURE SENSOR – HIGH
GAUGE IN PANEL	REGULATOR/RELIEF VALVE	TEMPERATURE SENSOR – HIGH
CAM FITTING OR UNION	IN LINE FILTER	RESISTANT TEMPERATURE DETECTOR
GATE VALVE	"Y" – STRAINER	MAIN PROCESS PIPING
BALL VALVE	FLOW METER	UTILITY PIPING
GLOBE VALVE	ORIFICE PITOT TUBE SENSOR	FUTURE PIPING / PIPING BY OTHERS
NEEDLE VALVE	PRESSURE/VACUUM TRANSDUCER	INST. TUBING AIR, GAS, or OIL
RELIEF VALVE	FLOW SWITCH	PROCESS HOSE

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CUSTOMER: AGVIQ ENVIRONMENTAL SERVICES
PROJECT: SVE SYSTEM / CECIL FIELD

PROCESS AND INSTRUMENTATION FLOW DIAGRAM
FOR
SOIL VAPOR EXTRACTION SYSTEM

DWN BY	CHK'D BY	APP'D BY	DATE	SCALE	JOB No.	DRAWING No.	REV
DB (TF)	TB (TF)	EP (TF)	AUG 05/04	NTS			0

PURCHASER: DAKOTA & COMPANY,INC.
PROJECT: FUEL FARM SHED
JOB NUMBER: 5033

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601 SOUTH ELM STREET ----- ADEL, GEORGIA 31620
PHONE:(229)896-2263 ----- FAX:(229)896-4658

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WHERE DISCREPANCIES EXIST BETWEEN THE ADEL STEEL PLANS AND THE PLANS FOR OTHER TRADES, THE STRUCTURAL STEEL PLANS SHALL GOVERN. (SECT. 4.2.1 AISC CODE OF STANDARD PRACTICE 9TH ED.)
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FPAC: MBCI PANELS PBR 1904.2

BUILDING LOADS / DESCRIPTION:

WIDTH: 60 LENGTH: 80 HEIGHT: 16.5 /16.5
(BUILDING DIMENSIONS ARE NOMINAL. REFER TO PLANS).

THIS STRUCTURE IS DESIGNED UTILIZING THE LOADS INDICATED AND APPLIED AS REQUIRED BY : FBC 01 .

THE CONTRACTOR IS TO CONFIRM THAT THESE LOADS COMPLY WITH THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT.

ROOF DEAD LOAD:	2	PSF (ROOF PANELS & PURLINS)
COLLATERAL LOAD:	5	PSF
ROOF LIVE LOAD:	20	PSF
ROOF SNOW LOAD:	0	PSF
WIND SPEED:	120	MPH
SEISMIC COE(Ss*Fa):	0.050	

IMPORTANCE FACTORS:

WIND LOAD:	___	1.00
SNOW LOAD	___	1.0
SEISMIC LOAD	___	1.00

OTHER LOADS

ROOF DETAILS:

PANEL TYPE: PBR ;GAGE: 22 ;COLOR: Desert Sand
INSULATION THICKNESS: n/a ;TYPE: n/a

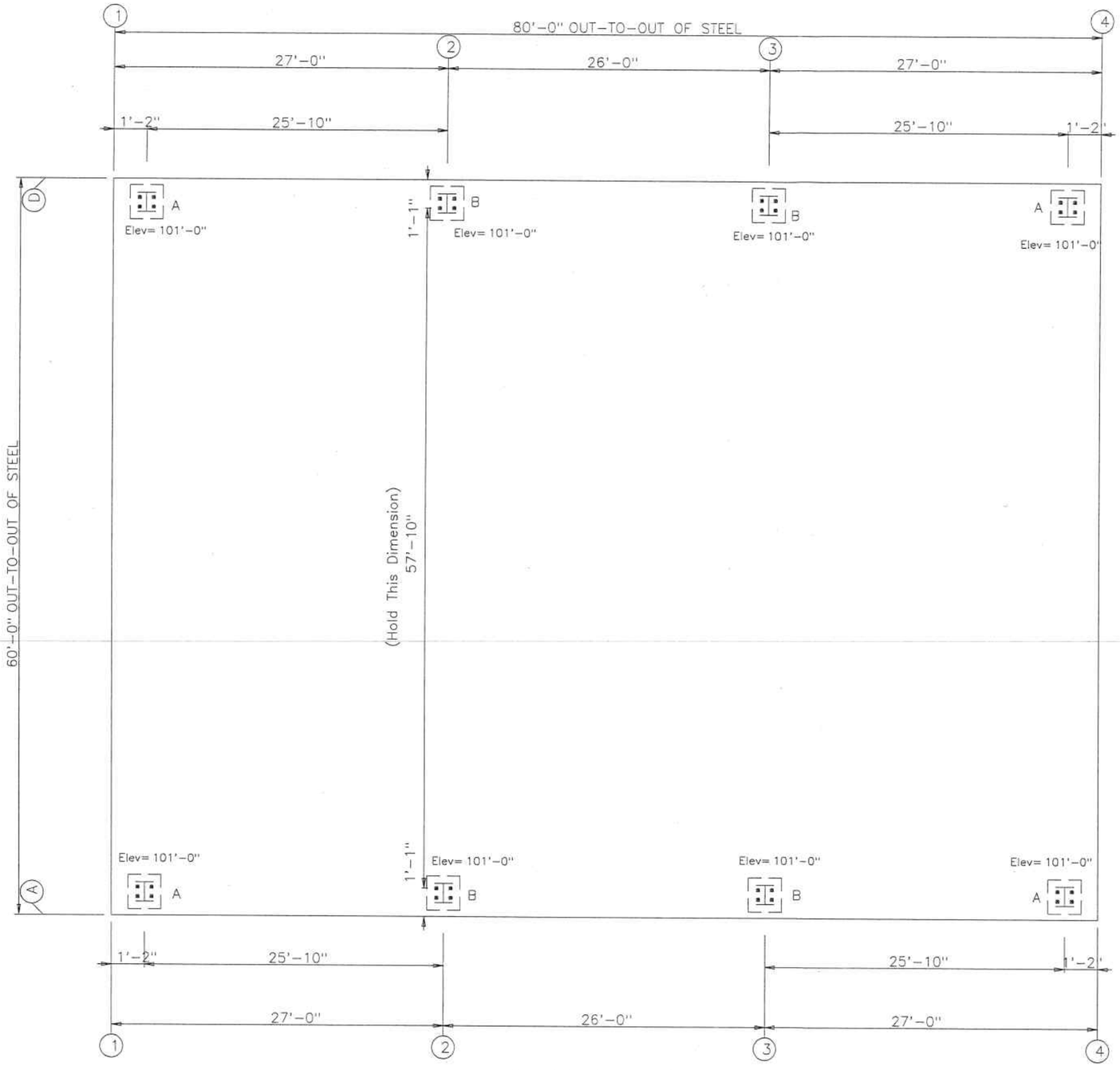
WALL DETAILS:

PANEL TYPE: n/a ;GAGE: n/a ;COLOR: n/a
INSULATION THICKNESS: n/a ;TYPE: n/a

TRIM COLORS:

BASE: n/a EAVE / GUTTER: Desert Sand
RAKE: Desert Sand DOWNSPOUTS: Desert Sand
CORNER: n/a FRAMED OPENINGS: n/a

Kenneth C Vogt
1/28/05



ANCHOR BOLT PLAN

NOTE: All Base Plates @ 100'-0" (U.N.)

○ Dia= 5/8"

⊗ Dia= 3/4"

Kenneth C Vogt
1/26/05

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E-MAIL: STEEL@ADELSTEEL.COM

DESIGN CRITERIA		
FBC 01		BUILDING CODE
12	PSF	LIVE LOAD TO FRAMES
20	PSF	LIVE LOAD TO PURLINS
120	MPH	WIND LOAD
0	PSF	SNOW LOAD
5	PSF	COLLATERAL LOAD
1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_v
0.00		A_s

Anchor Bolt Layout

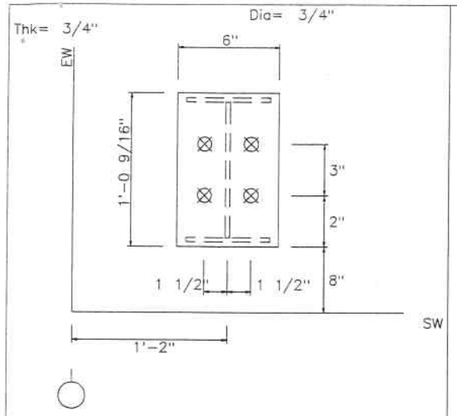
DAKOTA & COMPANY,INC.

5658 COLCORD AVE

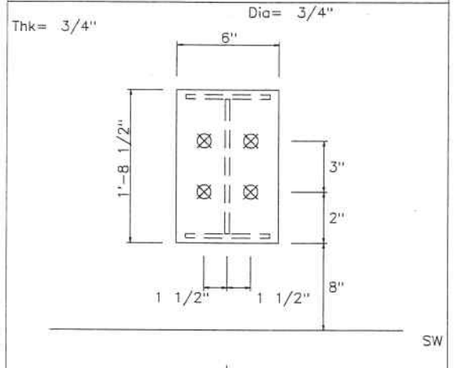
JAVKSONVILLE FL 32211

904-721-8288

Project	Date
5707	12/29/04
Scale	Contact
N.T.S.	
Drawing Number	
5033 AB1	



DETAIL A Base EL. 101'-0"



DETAIL B Base EL. 101'-0"

NOTES FOR REACTIONS

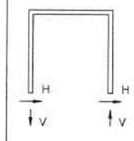
Building reactions are based on the following building data:

Width (ft)	= 60.0
Length (ft)	= 80.0
Eave Height (ft)	= 16.5/16.5
Roof Slope (rise/12)	= 4.0/ 4.0
Dead Load (psf)	= 2.0
Collateral Load (psf)	= 5.0
Roof Live Load (psf)	= 20.0
Frame Live Load (psf)	= 12.0
Wind Speed (mph)	= 120.0
Wind Code	= FBC 01
Exposure	= C
Closed/Open	= C
Importance -- Wind	= 1.00
Importance -- Seismic	= 1.00
Seismic Zone	= A
Seismic Coeff (Fa*Ss)	= 0.05

ANCHOR BOLT SUMMARY

Qnt	Loc	Dia (in)	Proj (in)
⊠ 32	RF	3/4"	2.50

WIND BENT REACTIONS

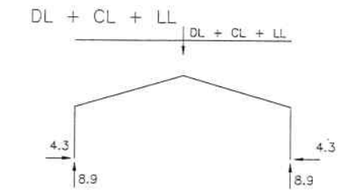


Loc	Wall Line	Col Line	± Reactions Wind(k) Horz	Wind(k) Vert	Seismic(k) Horz	Seismic(k) Vert
F_SW	A	2	3.44	3.65	0.10	0.10
F_SW	A	3	3.44	3.65	0.10	0.10
B_SW	D	3	3.44	3.65	0.10	0.10
B_SW	D	2	3.44	3.65	0.10	0.10

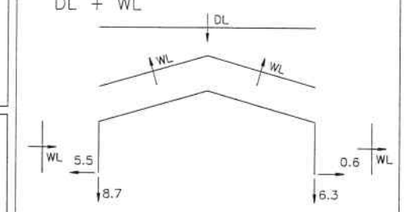
RIGID FRAME REACTIONS (k)

@1 4

DL + CL + LL



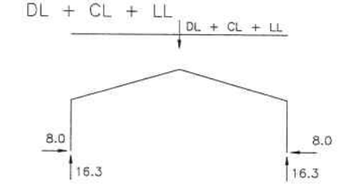
DL + WL



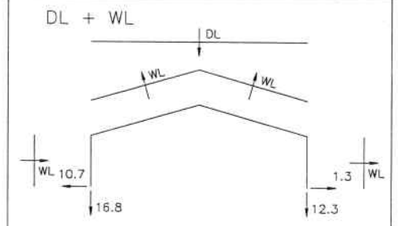
RIGID FRAME REACTIONS (k)

@2 3

DL + CL + LL



DL + WL



BRACING REACTIONS, PANEL SHEAR

Loc	Wall Line		Col Line	± Reactions (k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel Shear (lb/ft)
L_EW	1	Rigid Frame At Endwall						
F_SW	A	Wind Bent In Wall						
R_EW	4	Rigid Frame At Endwall						
B_SW	D	Wind Bent In Wall						

Kenneth E Voga
11/22/05

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DESIGN CRITERIA

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120	MPH	WIND LOAD
0	PSF	SNOW LOAD
5	PSF	COLLATERAL LOAD
1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_v
0.00		A_a

Anchor Bolt Layout

DAKOTA & COMPANY,INC.
5658 COLCORD AVE
JAVKSONVILLE FL 32211
904-721-8288

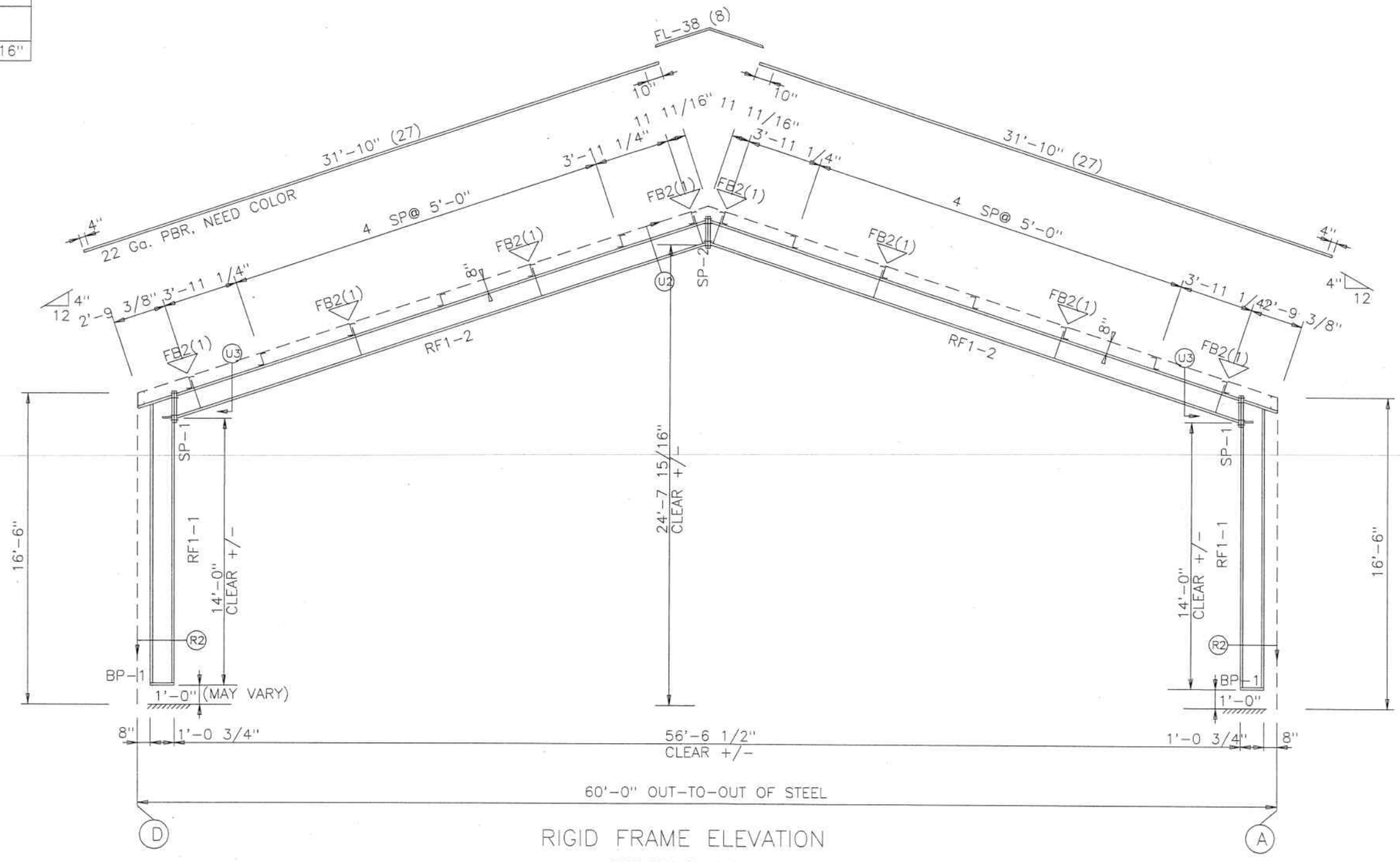
Project 5707	Date 12/29/04
Scale N.T.S.	Contract
Drawing Number 5033 AB2	

SPLICE BOLTS						
Splice Mark	Quan Top/Bot/Int			Bolt Type	Dia	Len
SP- 1	4	4	0	A325	3/4"	2 1/4"
SP- 2	4	4	0	A325	3/4"	2"

▽FLANGE BRACES: Both Sides(U.N.)
FBxxA(1)
A - L2X2X1/8

BASE PLATES			
Col Id	Plate Size Wid	Thick	Length
BP- 1	6"	3/4"	1'-0 9/16"

MEMBER SIZE TABLE (in)						
PIECE	WEIGHT	WEB DEPTH START/END	WEB PLATE THICK	WEB PLATE LENGTH	OUTSIDE FLANGE W x T x LEN	INSIDE FLANGE W x T x LEN
RF1-1	355	12.0/12.0	0.134	166.8	5x1/4" x 54.0	5x5/16"x 54.0
		12.0/12.0	0.250	16.2	5x1/2" x124.9	5x1/2" x112.8
					5x1/2" x 21.2	
RF1-2	501	12.0/12.0	0.134	180.0	5x5/16"x122.2	5x3/8" x126.3
		12.0/12.0	0.134	156.3	5x1/4" x234.0	5x1/4" x229.9
		12.0/12.0	0.134	24.0		



RIGID FRAME ELEVATION

FOR FRAME LINE 1 4

Kenneth E Vogan
1/29/05

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1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_v
0.00		A_a

Frame Cross Section

DAKOTA & COMPANY,INC.
5658 COLCORD AVE
JAVKSONVILLE FL 32211
904-721-8288

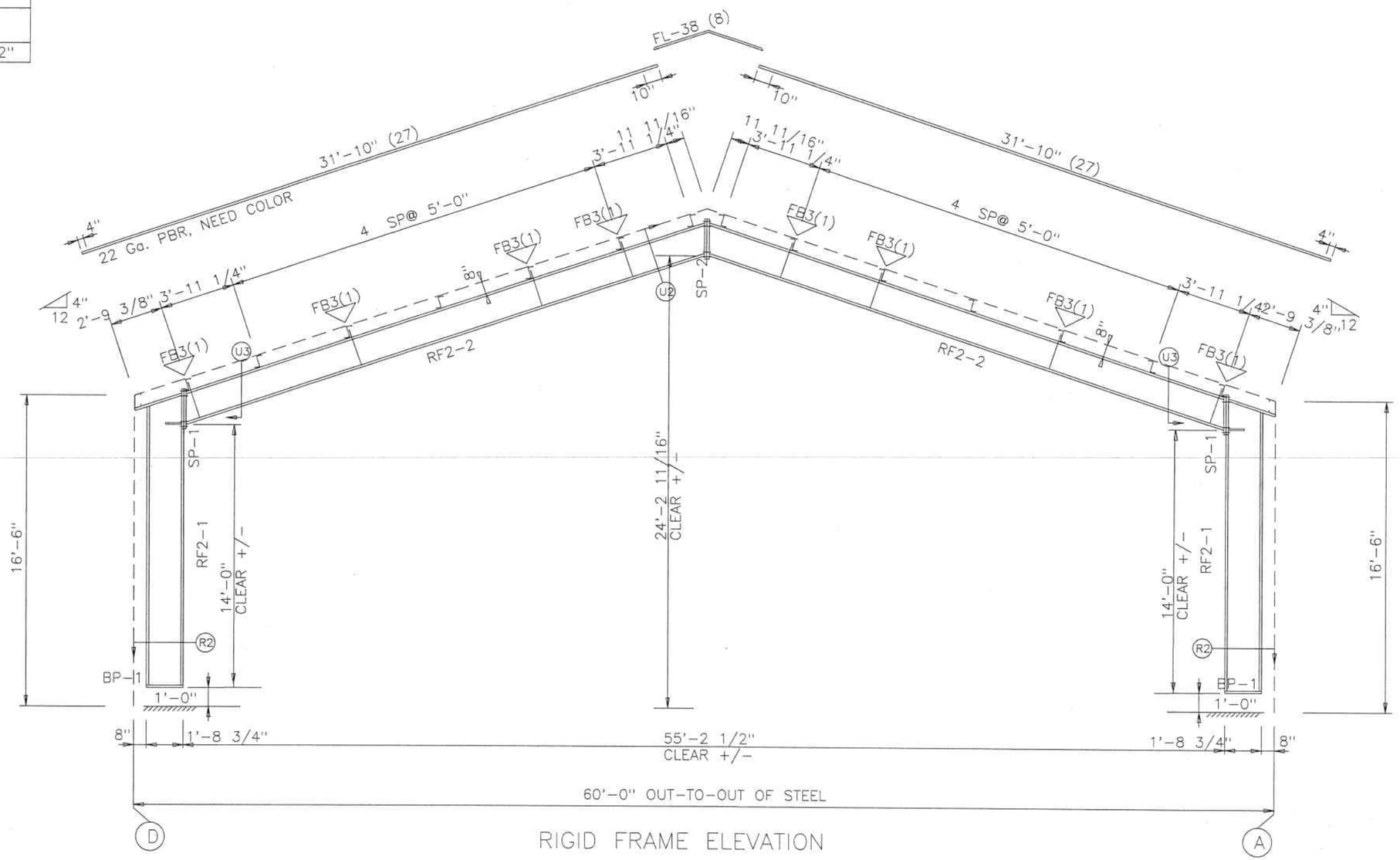
Project	Date
5707	12/29/04
Scale	Contact
N.T.S.	
Drawing Number	
5033 XS1	

SPLICE BOLTS						
Splice Mark	Quan Top/Bot/Int			Bolt Type	Dia	Len
SP- 1	4	4	0	A325	3/4"	2 1/4"
SP- 2	4	4	0	A325	3/4"	2"

▽FLANGE BRACES: Both Sides(U.N.)
FBxxA(1)
A - L2X2X1/8

BASE PLATES			
Col Id	Plate Size Wid	Thick	Length
BP- 1	6"	3/4"	1'-8 1/2"

MEMBER SIZE TABLE (in)						
PIECE	WEIGHT	WEB DEPTH START/END	WEB PLATE THICK	WEB PLATE LENGTH	OUTSIDE FLANGE W x T x LEN	INSIDE FLANGE W x T x LEN
RF2-1	443	20.0/20.0	0.134	164.2	6x1/4" x 54.0	6x1/4" x 54.0
		20.0/20.0	0.250	21.5	6x5/16"x124.9	6x1/2" x110.2
					6x1/2" x 29.6	
RF2-2	595	17.0/17.0	0.134	180.0	5x3/8" x113.7	5x1/2" x119.5
		17.0/17.0	0.134	173.5	5x1/4" x234.0	5x1/4" x228.2



RIGID FRAME ELEVATION

FOR FRAME LINE 2 3

Kenneth E Vogt
1/28/05

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DESIGN CRITERIA		
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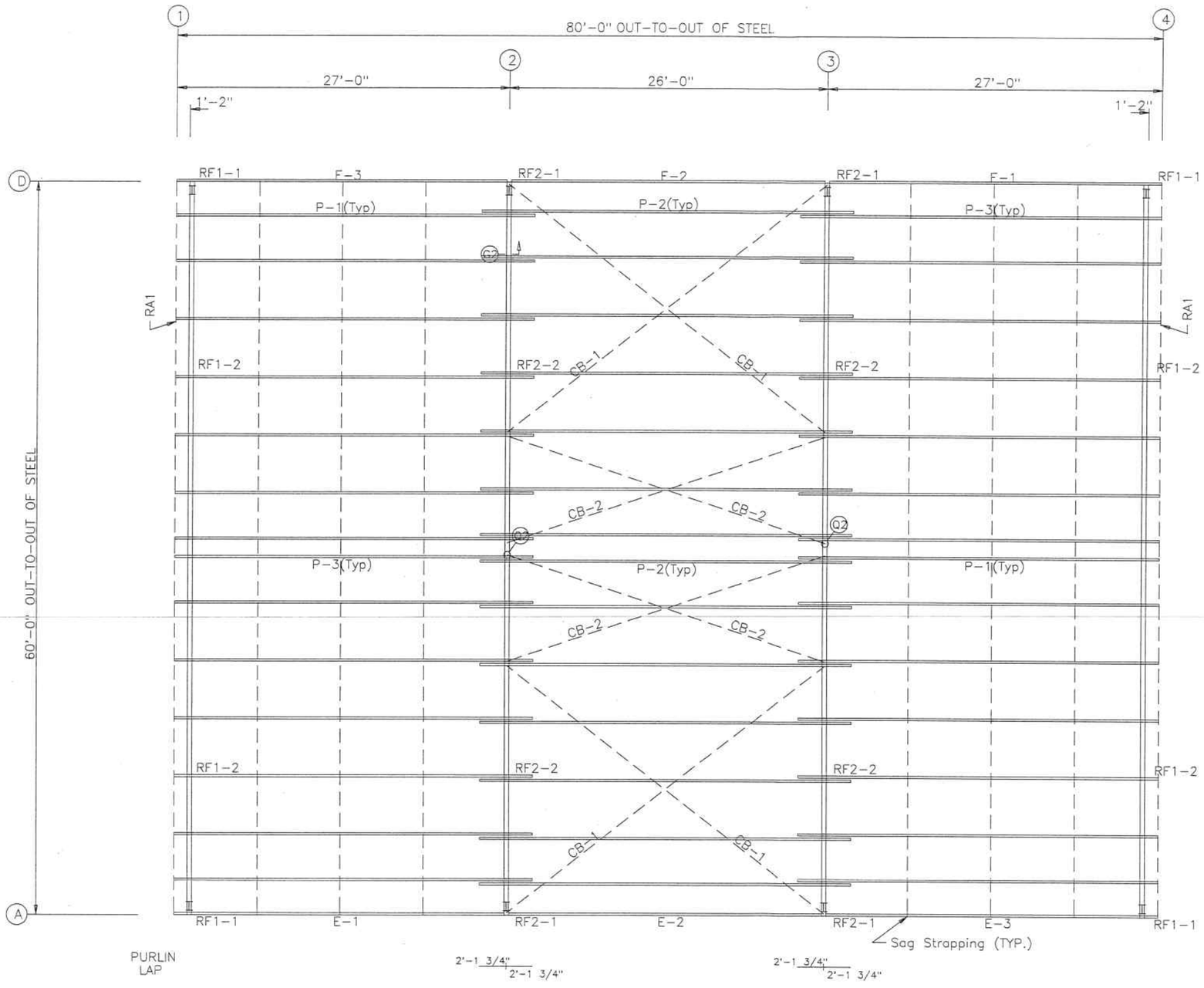
5	PSF	COLLATERAL LOAD
1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_v
0.00		A_a

Frame Cross Section

DAKOTA & COMPANY,INC.
5658 COLCORD AVE
JAVKSONVILLE FL 32211
904-721-8288

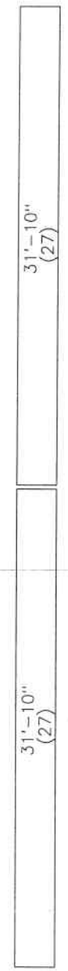
Project	Date
5707	12/29/04
Scale: N.T.S.	Contact
Drawing Number: 5033 XS2	

MEMBER TABLE ROOF PLAN			
QUAN	MARK	PART	LENGTH
14	P-1	8X35z14	29'-1 1/2"
14	P-2	8X35z14	30'-3 1/2"
14	P-3	8X35z14	29'-1 1/2"
2	E-1	8E14	26'-11 1/2"
2	E-2	8E14	25'-11 1/2"
2	E-3	8E14	26'-11 1/2"
4	CB-1	3/8" CBL	31'-3"
4	CB-2	1/4" CBL	25'-11"



ROOF FRAMING PLAN

FL-38
(8)



ROOF SHEETING

PANELS: 22 Ga. PBR
NEED COLOR

Kenneth E Vogt
1/28/05

DESIGN CRITERIA		
FBC 01		BUILDING CODE
12	PSF	LIVE LOAD TO FRAMES
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120	MPH	WIND LOAD
0	PSF	SNOW LOAD
5	PSF	COLLATERAL LOAD
1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_v
0.00		A_s

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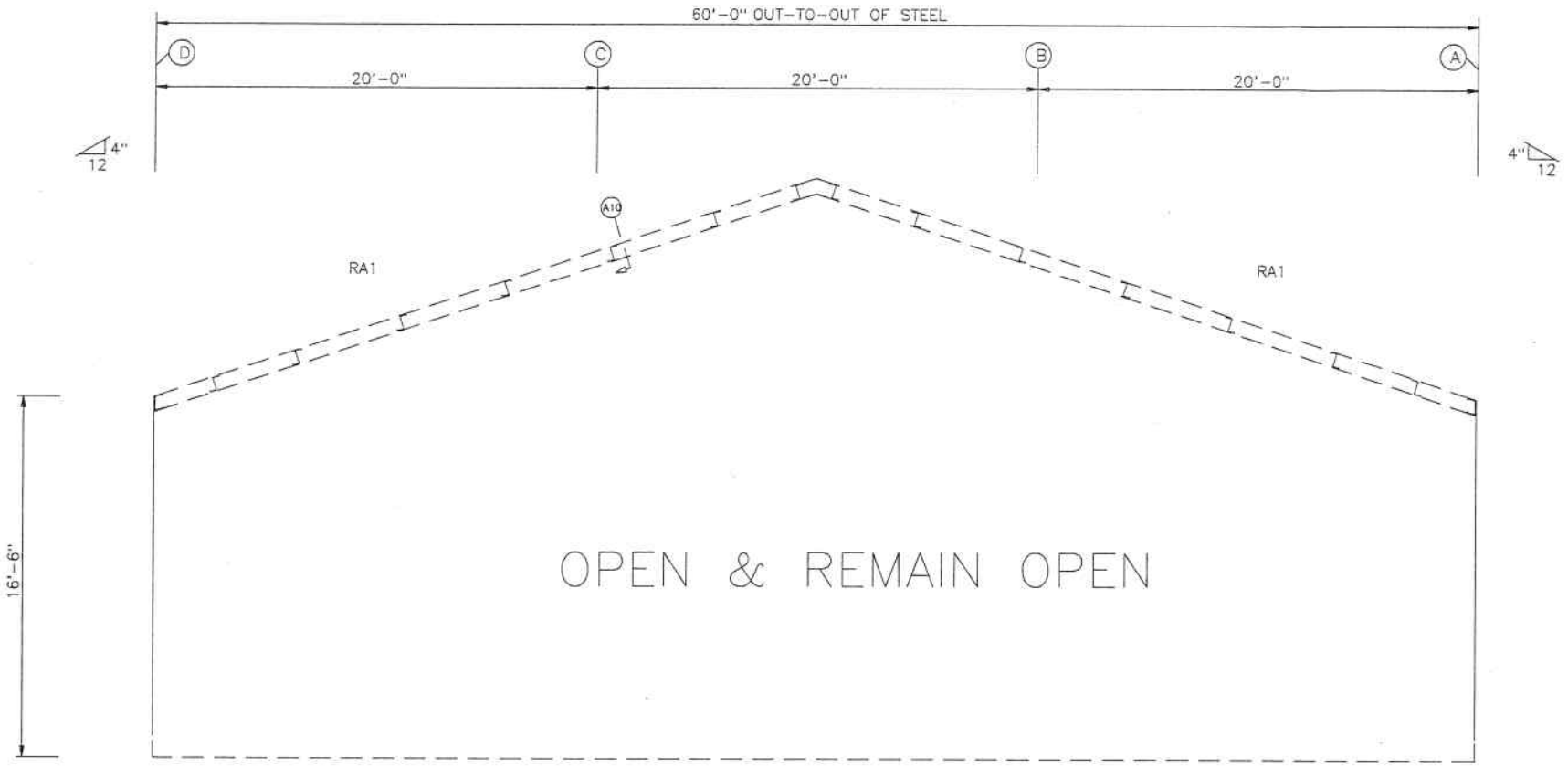
Roof Framing & Sheeting

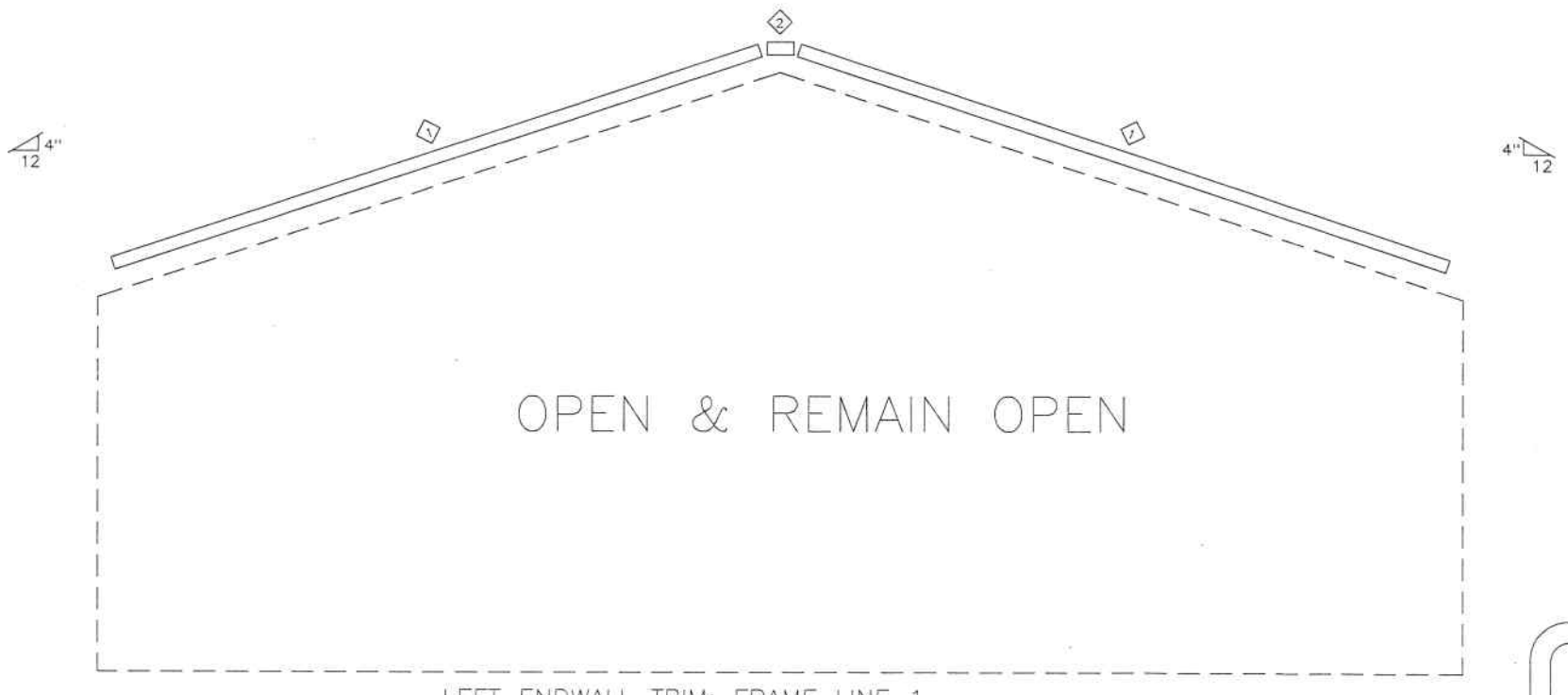
DAKOTA & COMPANY,INC.
5658 COLCORD AVE
JAVKSONVILLE FL 32211
904-721-8288

Project	Date
5707	12/29/04
Scale: N.T.S.	Contact
Drawing Number: 5033 FR1	

TRIM TABLE FRAME LINE 1		
◇ID	MARK	LENGTH
1	FL-16D	20'-3"
2	FL-13C	1'-4"



LEFT ENDWALL FRAMING: FRAME LINE 1



LEFT ENDWALL TRIM: FRAME LINE 1

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1/29/05

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DESIGN CRITERIA		
FBC 01		BUILDING CODE
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120	MPH	WIND LOAD
0	PSF	SNOW LOAD
5	PSF	COLLATERAL LOAD
1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_v
0.00		A_s

Endwall Framing & Trim

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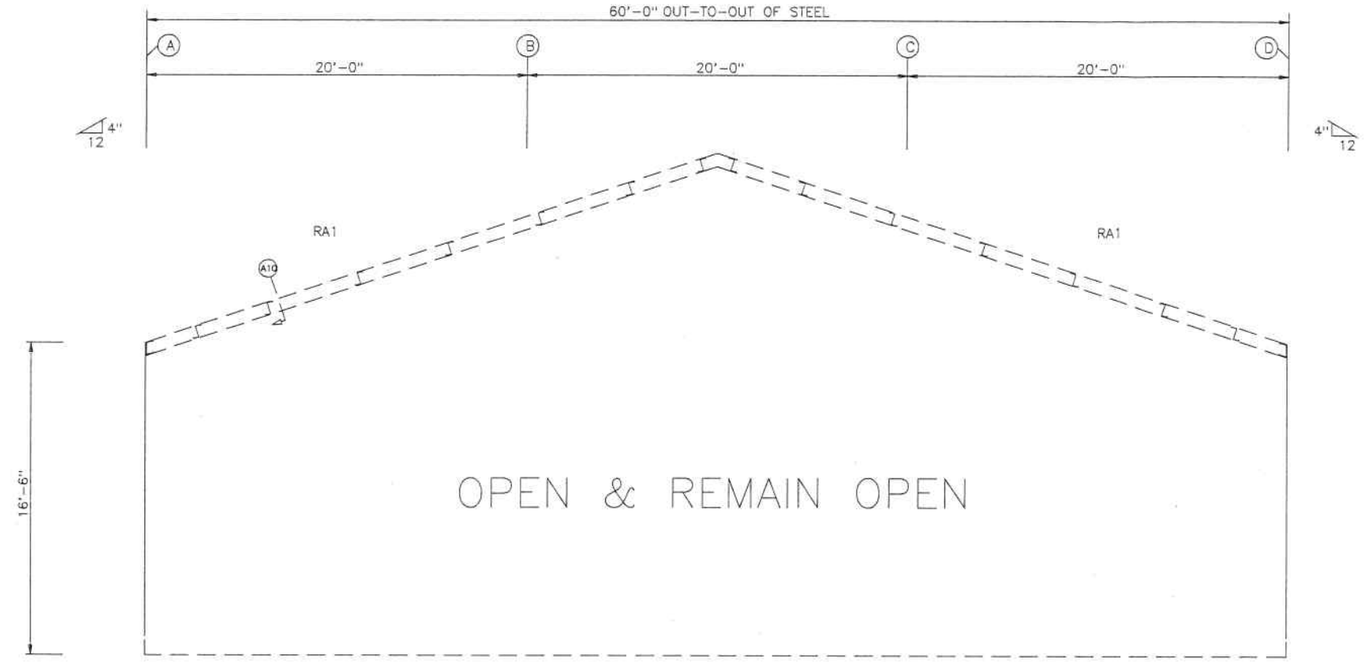
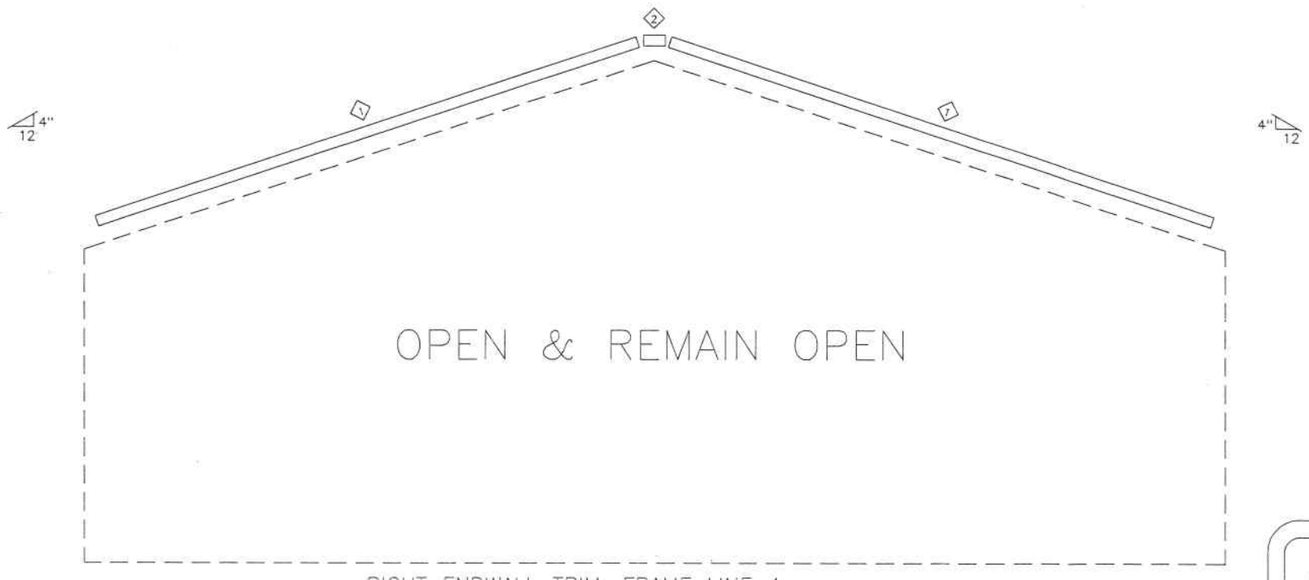
5658 COLCORD AVE
JAVKSONVILLE FL 32211
904-721-8288

Project	Date
5707	12/29/04
Scale	Contact
N.T.S.	
Drawing Number	
5033 FR2	

TRIM TABLE FRAME LINE 4		
◇ID	MARK	LENGTH
1	FL-16D	20'-3"
2	FL-13C	1'-4"



RIGHT ENDWALL FRAMING: FRAME LINE 4



RIGHT ENDWALL TRIM: FRAME LINE 4

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1/20/05

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120	MPH	WIND LOAD
0	PSF	SNOW LOAD
5	PSF	COLLATERAL LOAD
1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.250		A_v
0.00		A_a

Endwall Framing & Trim

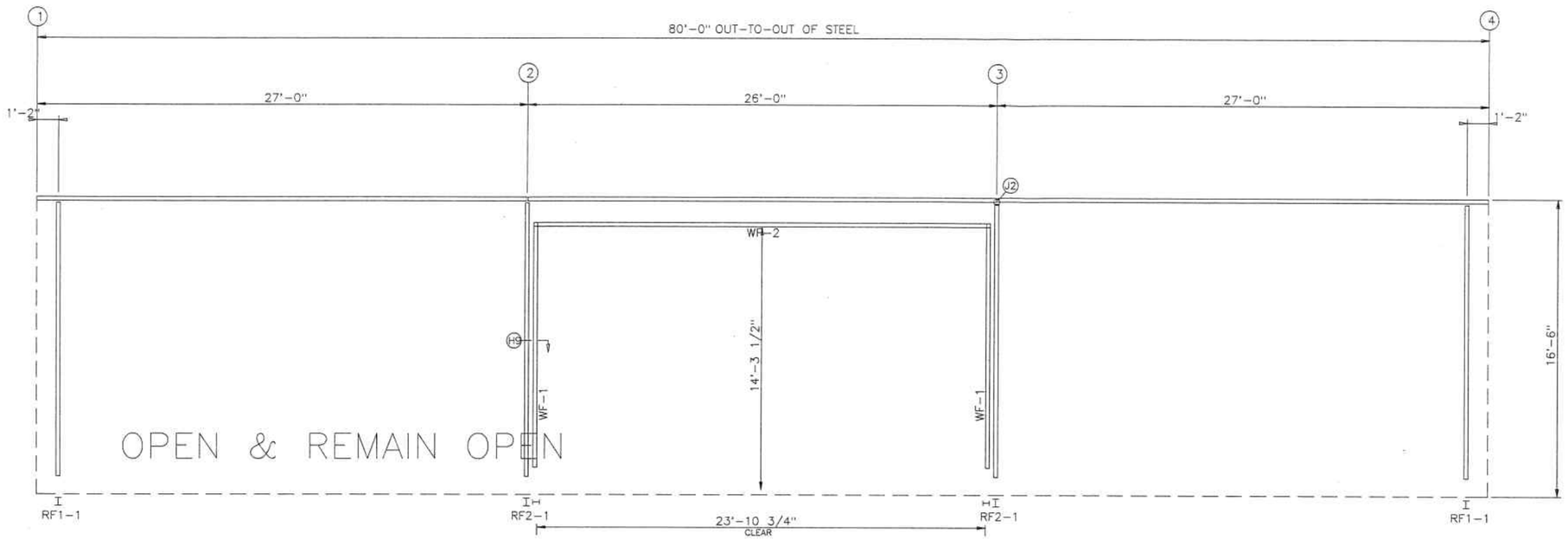
DAKOTA & COMPANY,INC.
5658 COLCORD AVE
JAVKSONVILLE FL 32211
904-721-8288

Project	Date
5707	12/29/04
Scale	Contact
N.T.S.	
Drawing Number	
5033 FR3	

MEMBER TABLE FRAME LINE A			
QUAN	MARK	PART	LENGTH
2	WF-1	W12643	13'-10"
1	WF-2	W12643	23'-10 1/4"

BOLT TABLE FRAME LINE A				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 - WF-2	4	A325	3/4"	2"
WF - FRAME	4	A325	3/4"	2 1/2"

TRIM TABLE FRAME LINE A		
◇ID	MARK	LENGTH
1	FL-18A	6"
2	FL-14D	20'-2"
3	FL-19A	20'-2"



FRONT SIDEWALL FRAMING: FRAME LINE A

FRONT SIDEWALL TRIM: FRAME LINE A

Kenneth C Vogt
1/28/05

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0	PSF	SNOW LOAD
5	PSF	COLLATERAL LOAD
1.00		IMPORTANCE USE FACTOR
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_V
0.00		A_S

Sidewall Framing & Sheeting

DAKOTA & COMPANY,INC.
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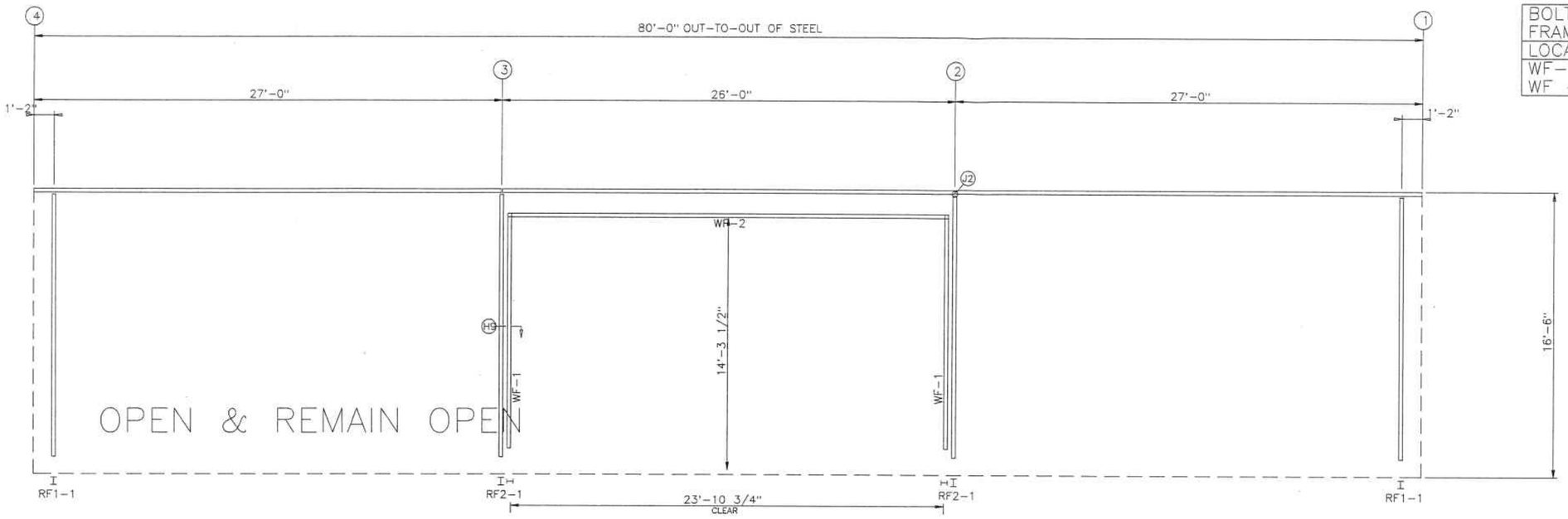
JAVKSONVILLE FL 32211
904-721-8288

Project	Date
5707	12/29/04
Scale	Contact
N.T.S.	
Drawing Number	
5033 FR4	



BACK SIDEWALL FRAMING: FRAME LINE D

MEMBER TABLE FRAME LINE D			
QUAN	MARK	PART	LENGTH
2	WF-1	W12643	13'-10"
1	WF-2	W12643	23'-10 1/4"

BOLT TABLE FRAME LINE D				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 - WF-2	4	A325	3/4"	2"
WF - FRAME	4	A325	3/4"	2 1/2"

TRIM TABLE FRAME LINE D		
◇ID	MARK	LENGTH
1	FL-18A	6"
2	FL-14D	20'-2"
3	FL-19A	20'-2"

(Gutters with 4 downspouts)

BACK SIDEWALL TRIM: FRAME LINE D

Kenneth E Vogt
1/20/05

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DESIGN CRITERIA		
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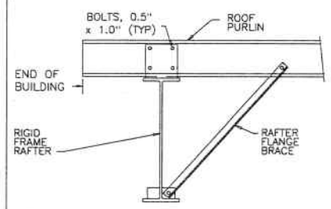
C		EXPOSURE
2.0		SOIL COEFFICIENT
0.050		A_v
0.00		A_s

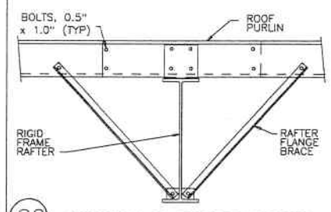
Sidewall Framing & Trim

DAKOTA & COMPANY,INC.
5658 COLCORD AVE
JAVKSONVILLE FL 32211
904-721-8288

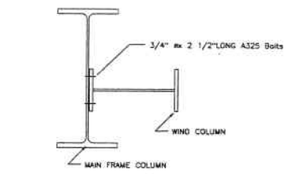
Project	Date
5707	12/29/04
Scale	Contract
N.T.S.	
Drawing Number	
5033 FR5	



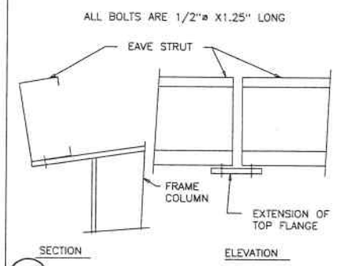
A1 ROOF PURLIN TO EXPANDABLE ENDWALL RIGID FRAME



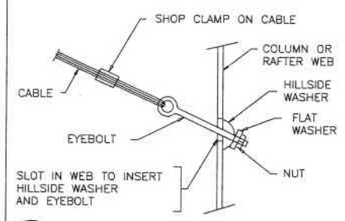
G2 ROOF PURLIN TO INTERIOR FRAME RAFTER



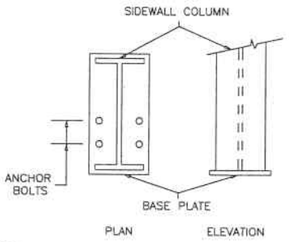
H9 WIND COLUMN TO BUILDING COLUMN



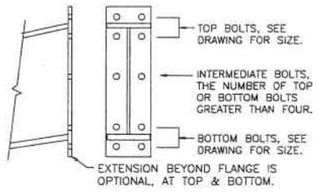
J2 EAVE STRUT TO RIGID FRAME



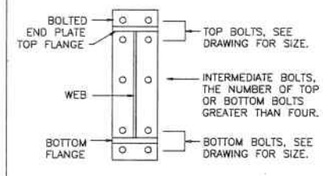
Q2 DIAGONAL CABLE, EYEBOLT END



R2 ANCHOR BOLTS AT SIDEWALL COLUMN



U2 BOLTED END PLATE CONNECTION AT BUILDING PEAK



U3 BOLTS FOR RAFTER TO COLUMN CONNECTION

Kenneth E Cope
1/26/05

Adel Steel, Inc.		DAKOTA & COMPANY,INC.		
PROJECT	FUEL FARM SHED	STRUCTURAL DETAILS		
ID	5033	DESIGN:	DRAFT:	CHECK:
PROJECT ADDRESS	JACKSONVILLE FL	DATE:	SHEET	OF

Appendix H

Concrete Testing Results

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

PROJECT NO: 04JX-3235
REPORT NO: 1
LAB NO: 2-057
DATE: 10/01/2004

RECEIVED OCT 0 7 2004

REPORT OF: MOISTURE DENSITY RELATIONSHIP OF SOILS
PROJECT: Loop Road & Aviation Drive, Cecil Field

ATTENTION: Mr. Randy Dumaop
REPORTED TO: AGVIQ Environmental Services
4663 Haygood Road, Suite 208
Virginia, VA 23455

LOCATION: Compressor Pad
MATERIAL: Dark Brown Fine SAND With Crushed Concrete
SPECIFICATIONS: ASTM D 1557
DATE SAMPLED: 09/29/2004
DATE TESTED: 09/29/2004
MAXIMUM DRY DENSITY: 109.0 P.C.F.
OPTIMUM MOISTURE: 12.1 %
SAMPLED BY: M. Daniels
INSPECTED BY: J. Richmond

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

for Nemer (Nick) Y. Oweis, P.E.
Principal Engineer

DISTRIBUTION:

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

PROJECT NO: 04JX-3235
REPORT NO: 2
LAB NO: 2-
DATE: 10/01/2004

REPORT OF: IN-PLACE DENSITY TESTS
PROJECT: Loop Road & Aviation Drive, Cecil Field

RECEIVED OCT 0 7 2004

ATTENTION: Mr. Randy Dumaop
REPORTED TO: AGVIQ Environmental Services
4663 Haygood Road, Suite 208
Virginia, VA 23455

TEST DATE: 09/29/2004
TEST METHOD: ASTM D-2922
LOCATION: Various Pads
COURSE: Subgrade
MATERIAL: Dark Brown Fine SAND With Crushed Concrete

LOCATION	SPEC. REQ.	DEPTH	THICK NESS	DRY DEN. lbs./cu.ft.	MAX DEN. lbs./cu.ft.	% MAX. DRY DEN.	MOISTURE PERCENT
Control Room Pad	95	0-12"		108.4	109.0	99	10.6
Compressor Pad	95	0-12"		108.6	109.0	100	12.3
S.V.E. Pad	95	0-12"		112.3	109.0	103	10.5

THE ABOVE TESTS MEET SPECIFICATION REQUIREMENTS UNLESS OTHERWISE INDICATED.

INSPECTED BY: M. Daniels

Respectfully submitted,

ELLIS & ASSOCIATES, INC.

for

Nemer (Nick) Y. Oweis, P.E.
Principal Engineer

DISTRIBUTION:

0283A NYO\jlm

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

PROJECT NO: 04JX-3235
REPORT NO: 3
LAB NO: 2-850
DATE: 10/08/2004

REPORT OF: COMPRESSIVE STRENGTH OF CONCRETE CYLINDERS
PROJECT: Loop Road & Aviation Drive, Cecil Field

ATTENTION: Mr. Randy Dumaop
REPORTED TO: AGVIQ Environmental Services
4663 Haygood Road, Suite 208
Virginia, VA 23455

DATE MOLDED: 09/30/2004 **DATE RECEIVED:** 10/02/2004
POUR LOCATION: Control Room, SVE & Compressor Pads
SPEC. REQUIREMENTS: 4000 psi @ 28 days
WEATHER: Clear AIR TEMP:87°F CONCRETE TEMP:88°F
CONCRETE SUPPLIER: Florida Rock Industries TRUCK NO.:2003 TICKET NO.:2895224
SIZE OF LOAD/ON PROJECT: 10 (yd3) TIME SAMPLED:13:58 TIME BATCHED:13:20
SPECIMENS MOLDED BY: M. Daniels SLUMP:1.5"
SPECIMENS MOLDED IN ACCORDANCE TO ASTM C 31: Yes
SPECIMENS INITIALLY CURED IN ACCORDANCE TO ASTM C 31: Yes CONCRETE MIX#:EC52EC
SPECIMENS TESTED IN ACCORDANCE TO ASTM C 39: Yes

SPECIMEN	TYPE OF FRACTURE	DIAMETER (in.)	AREA (sq. in.)	DATE TESTED	AGE DAYS	TOTAL LOAD (lbs.)	UNIT LOAD (psi)	TESTED BY	RPT#
850A	c	6.00	28.27	10/07/2004	7	104,160	3,680	DC	3
850B				10/28/2004	28				
850C				10/28/2004	28				

☒ Cone (a) ☐ Cone/Split (b) ☒ Cone/Shear (c) ☐ Shear (d) ☐ Columnar (e)

Respectfully submitted,
ELLIS & ASSOCIATES, INC.

for Nemer (Nick) Y. Oweis, P.E.
Principal Engineer

DISTRIBUTION:

0322A NYO\jlm

Appendix I

Waste Characterization Analytical Reports and Waste Manifests

04879

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17). NAS JAX., Florida 32212

4. Generator's Phone ( ) 542-

5. Transporter 1 Company Name: Environmental Remediation Svc. | 6. US EPA ID Number: F L D 9 8 3 2 6 1 4 1 2 | A. Transporter's Phone 904/791-9992

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Chesser Island Landfill
Hwy 121 South
Folkston, Georgia 31537

10. US EPA ID Number: Not Required

C. Facility's Phone: 912/496-7918

GENERATOR

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Petroleum Impacted Soil (Drill Cuttings)	022	DM	155.00	P
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above: N/A

E. Handling Codes for Wastes Listed Above: N/A

15. Special Handling Instructions and Additional Information
Approval# WM-VB 2889(NAS Cecil Field)
Drum #'s 142, 143, 149, ~~148~~, 45, 78, 67, 68, 70, 89, 13, 17, 10, 19, 117, 119, 21, 129, 26, 20, 28, 27, 9, 11.

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: Arthur G. Mosby | Signature | Month 10 | Day 04 | Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: HENRY DENKINS | Signature: Henry Denkins | Month 10 | Day 04 | Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

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

GENERATOR'S COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17), NAS JAX., Florida 32212

4. Generator's Phone ( )

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
EnviroAmerican Remediation Svc.	F L D 9 8 4 2 0 1 4 1 2	904/791-9992
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Chesser Island Landfill Hwy 121 South Folkston, Georgia 31537	Not Required	912/496-7918

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Petroleum Impacted Soil (Drill Cuttings)	022	DM	15500	P
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above	E. Handling Codes for Wastes Listed Above
N/A	N/A

15. Special Handling Instructions and Additional Information
Approval# WM-VB 2889(NAS Cecil Field)
Drum #'s 139, 138, 120, 136, 141, 152, 153, 130, 118, 103, 102, 104, 34, 32, 46, 59, 51, 82, 63, 56, 57, 49.

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
Arthur E. Mosley		10	04	04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
T Brown		10	04	04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

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

GENERATOR'S COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17), NAS JAX., Florida 32212

4. Generator's Phone ( )

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Environmental Remediation Svc.	F L D 9 8 [illegible] 4 1 2	904/791-9992
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Chesser Island Landfill Hwy 121 South Folkston, Georgia 31537	Not Required	912/496-7918

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Petroleum Impacted Soil (Drill Cuttings)	018	DM	4100	P
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above	E. Handling Codes for Wastes Listed Above
N/A	N/A

15. Special Handling Instructions and Additional Information
Approval# WM-VB 2809(NAS Cecil Field)
Drum #'s 100, 101, 62, 105, 115, 106, 76, 69, 61, 107, 109, 108, 91, 86, 110, 111 114, 96.

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
Arthur C. Mosley	Arthur C. Mosley	10	04	04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Henry Dennis	Henry Dennis	10	04	04

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

GENERATOR
TRANSPORTER
FACILITY

GENERATOR'S COPY

04873

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 04873 | 2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17), NAS JAX., Florida 32212

4. Generator's Phone ( )

5. Transporter 1 Company Name: Environmental Remediation Svc. | 6. US EPA ID Number: F L D 9 8 4 2 6 1 4 1 2 | A. Transporter's Phone: 904/791-9992

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Industrial Water Services
1640 Talleyrand Ave.
Jacksonville, Florida 32206

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

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. Petroleum Contact Water (PCW)	022	DM	01210 ~~11050~~	G
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above
This PCW does not contain any hazardous constituents above those found in the source of this PCW

E. Handling Codes for Wastes Listed Above
N/A

15. Special Handling Instructions and Additional Information
IWS Approval #024062
Drum #'s 126, 127, 128, 23, 4, 5, 3, 12, 24, 14, 15, 16, 18, 2, 7, 1, 22, 8, 30, 29, 25, 27,

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
Arthur G. Mosley	Arthur G. Mosley	10	05	04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
T Brown	Terri Brown	10	05	04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

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

GENERATOR'S COPY

04874

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17), NAS JAX., Florida 32212

4. Generator's Phone ( )

5. Transporter 1 Company Name: Environmental Remediation Svc. | 6. US EPA ID Number: F L D 9 8 4 2 8 1 4 1 2 | A. Transporter's Phone: 904/791-9992

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Industrial Water Services
1640 Talleyrand Ave.
Jacksonville, Florida 32206

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

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. Petroleum Contact Water (PCW)	019	DM	01045 ~~01045~~	G
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above
This PCW does not contain any hazardous constituents above those found in the source of this PCW

E. Handling Codes for Wastes Listed Above
N/A

15. Special Handling Instructions and Additional Information
IWS Approval #024062
Drum #'s 113, 112, 99, 47, 58, 48, 90, 134, 135, 44, 41, 42, 85, 83, 84, 80, 79, 51, 52,

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
Arthur G. Mosley	Arthur G Mosley	10	05	04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Henry Perkins	Henry Perkins	10	05	04

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

GENERATOR'S COPY

04875

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 04875 | 2. Page 1 of

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17), NAS JAX., Florida 32212

4. Generator's Phone ( )

5. Transporter 1 Company Name: Environmental Remediation Svc. | 6. US EPA ID Number: F L D 9 8 4 2 6 1 4 1 2 | A. Transporter's Phone: 904/791-9992

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Industrial Water Services
1640 Talleyrand Ave.
Jacksonville, Florida 32206

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

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. Petroleum Contact Water (PCW)	026	DM	01430	G
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above
This PCW does not contain any hazardous constituents above those found in the source of this PCW

E. Handling Codes for Wastes Listed Above
N/A

15. Special Handling Instructions and Additional Information
INS Approval #024062
Drum #'s 50, 40, 43, 45, 55, 54, 53, 125, 129, 60, 31, 35, 33, 137, 122, 15, 116, 140, 131, 151, 147, 145, 150, 123, 133, 121.

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: Arthur H. Mealy | Signature | Month 10 | Day 05 | Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Henry Curtis | Signature | Month 10 | Day 05 | Year 04

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

GENERATOR

TRANSPORTER

FACILITY

GENERATOR'S COPY

04876

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . Manifest Document No. 04876

2. Page 1 of

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17), NAS JAX., Florida 32212

4. Generator's Phone ( )

5. Transporter 1 Company Name: Environmental Remediation Svc.

6. US EPA ID Number: F L D 9 8 4 2 6 1 4 1 2

A. Transporter's Phone: 904/791-9992

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Industrial Water Services
1640 Talleyrand Ave.
Jacksonville, Florida 32206

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

C. Facility's Phone: 904/354-0372

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Petroleum Contact Water (PCW)	023	DM	01265	G
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above
This PCW does not contain any hazardous constituents above those found in the source of this PCW

E. Handling Codes for Wastes Listed Above
N/A

15. Special Handling Instructions and Additional Information
IWS Approval #024062
Drum #'s 132, 144, 146, 148, 88, 89, 92, 93, 94, 36, 37, 38, 39, 61, 65, 66, 69, 71, 77
72, 75, 74, 73.

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
Arthur G. Mosley	Arthur G. Mosley	10	05	04

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
T Brown	Tiana Brown	10	05	04

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

GENERATOR

TRANSPORTER

FACILITY

GENERATOR'S COPY

04877

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . | Manifest Document No. 04877 | 2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
Naval Facilities Engineering Command- NAS Cecil Field
Bldg 13 Yorktown & Roosevelt(US 17). NAS JAX., Florida 32212

4. Generator's Phone ( )

5. Transporter 1 Company Name: Environmental Remediation Svc. | 6. US EPA ID Number: F L D 9 8 4 2 6 1 4 1 2 | A. Transporter's Phone: 904/791-9992

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Industrial Water Services
1640 Talleyrand Ave.
Jacksonville, Florida 32206

10. US EPA ID Number: F·L·D·9·8·1·9·2·8·4·8·4 | 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. Petroleum Contact Water (PCW)	008	DM	00440	G
b. N/A				
c. N/A				
d. N/A				

D. Additional Descriptions for Materials Listed Above
This PCW does not contain any hazardous constituents above those found in the source of this PCW

E. Handling Codes for Wastes Listed Above
N/A

15. Special Handling Instructions and Additional Information
IWS Approval #024062
Drum #'s 98, 154, 155, 156, 157, 158, 159, 160.

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: Arthur G. Mosley | Signature: Arthur G Mosley | Month 10 | Day 05 | Year 04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Henry Dejkins | Signature: Henry Dejkins | Month 10 | Day 05 | Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

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

GENERATOR'S COPY

Appendix J

Transportation and Disposal Log

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
1	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	9	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
2	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	10	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
3	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	11	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
4	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	13	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
5	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	17	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
6	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	19	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
7	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	20	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
8	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	21	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
9	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	26	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
10	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	27	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
11	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	28	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
12	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	67	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
13	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	68	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
14	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	70	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
15	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	78	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
16	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	87	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
17	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	117	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
18	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	119	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
19	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	129	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
20	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	142	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
21	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	143	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
22	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	149	1	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04879	N/A	N/A	704	N/A	P			
23	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	32	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
24	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	34	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
25	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	46	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
26	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	49	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
27	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	56	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
28	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	57	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
29	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	59	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
30	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	63	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
31	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	81	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
32	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	82	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
33	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	102	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
34	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	103	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
35	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	104	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
36	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	118	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
37	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	120	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
38	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	130	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
39	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	136	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
40	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	138	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
41	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	139	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
42	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	141	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
43	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	152	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
44	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	153	2	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04880	N/A	N/A	704	N/A	P			
45	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	61	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
46	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	62	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
47	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	69	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
48	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	76	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
49	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	86	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
50	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	91	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
51	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	96	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
52	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	100	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
53	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	101	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
54	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	105	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
55	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	106	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
56	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	107	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
57	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	108	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
58	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	109	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
59	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	110	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
60	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	111	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
61	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	114	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
62	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	WM-VB 2889	CH2M HILL	E.R.S.	4-Oct-04	FLD984261412	115	3	Chesser Island Landfill	N/R	Solid	Non Haz	N/A		04881	N/A	N/A	704	N/A	P			
63	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	1	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
64	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	2	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
65	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	3	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
66	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	4	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
67	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	5	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
68	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	7	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
69	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	8	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
70	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	12	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
71	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	14	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
72	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	15	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
73	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	16	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
74	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	18	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
75	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	22	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
76	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	23	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
77	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	24	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
78	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	25	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
79	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	29	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
80	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	30	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
81	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	97	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
82	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	126	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
83	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	127	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
84	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	128	4	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04873	N/A	55	N/A	N/A	G			
85	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	41	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
86	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	42	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
87	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	44	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
88	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	47	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
89	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	48	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
90	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	51	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
91	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	52	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
92	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	58	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
93	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	79	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
94	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	80	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
95	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	83	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
96	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	84	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
97	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	85	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
98	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	90	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
99	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	99	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
100	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	112	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
101	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	113	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
102	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	134	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
103	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	135	5	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04874	N/A	55	N/A	N/A	G			
104	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	31	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
105	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	33	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
106	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	35	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
107	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	40	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
108	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	43	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
109	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	45	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
110	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	50	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
111	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	53	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
112	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	54	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
113	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	55	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
114	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	60	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
115	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	95	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
116	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	116	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
117	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	121	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
118	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	122	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
119	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	123	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
120	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	124	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
121	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	125	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
122	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	131	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
123	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	133	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
124	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	137	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
125	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	140	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
126	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	145	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
127	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	147	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
128	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	150	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
129	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	151	6	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04875	N/A	55	N/A	N/A	G			
130	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	36	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
131	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	37	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
132	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	38	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
133	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	39	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
134	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	61	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
135	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	64	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
136	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	65	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
137	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	66	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
138	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	71	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
139	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	72	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
140	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	73	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
141	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	74	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
142	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	75	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
143	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	77	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
144	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	88	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
145	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	89	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
146	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	92	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
147	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	93	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
148	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	94	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
149	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	132	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
150	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	144	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
151	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	146	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
152	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	148	7	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04876	N/A	55	N/A	N/A	G			
153	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	98	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			
154	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	154	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			
155	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	155	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			
156	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	156	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			
157	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	157	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			
158	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	158	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			
159	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	159	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			
160	0001	283092	Well Drilling	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	5-Oct-04	FLD984261412	160	8	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		04877	N/A	55	N/A	N/A	G			

	CTO No	Project No	Project Name	Site Description	Container Type	Container Design	Waste Profile Sample No	Contractor	Transporter	Date Transported	Transporter EPA ID	Site Drum #	Load ID	Disposal Facility	Disp Fac EPA ID	Media	Waste Type (Haz, Nonhaz, TSCA)	Waste Code/ Haz Waste No	Disposal Date	Manifest Number	Disposal Treatment Method (Enter disposal quantity under appropriate method)					Certif of Disp/ Destruc Date	Comments/ Notes	File Status (see note)
																					Incineration	Recycle	Landfill	Other	Unit			
161	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	31-Mar-05	FLD984261412	161	9	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		05282	N/A	40	N/A	N/A	G		Generated 09/24/04	
162	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	31-Mar-05	FLD984261412	162	9	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		05282	N/A	40	N/A	N/A	G		Generated 01/24/05	
163	0001	283092	VES GW	North Fuel Farm	Tank	500-Gallon Poly Tank	024062	CH2M HILL	E.R.S.	31-Mar-05	FLD984261412	NA	9	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		05282	N/A	400	N/A	N/A	G			
164	0001	283092	VES GW	North Fuel Farm	Tank	1500-Gallon Poly Tank	024062	CH2M HILL	E.R.S.	31-Mar-05	FLD984261412	NA	9	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A		05282	N/A	1,306	N/A	N/A	G			
165	0001	283092	MW Ground Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	163	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	50	N/A	N/A	G		Generated 05/11/05.	Well Abandonment
166	0001	283092	MW Ground Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	164	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	50	N/A	N/A	G		Generated 05/11/05.	Well Abandonment
167	0001	283092	MW Ground Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	165	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	50	N/A	N/A	G		Generated 05/11/05.	Well Abandonment
168	0001	283092	MW Ground Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	166	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	50	N/A	N/A	G		Generated 05/11/05.	Well Abandonment
169	0001	283092	MW Ground Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	167	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	50	N/A	N/A	G		Generated 05/11/05.	Well Abandonment
170	0001	283092	MW Ground Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	168	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	50	N/A	N/A	G		Generated 05/11/05.	Well Abandonment
171	0001	283092	MW Ground Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	169	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	50	N/A	N/A	G		Generated 05/11/05.	Well Abandonment
172	0001	283092	VES GW	North Fuel Farm	Tank	500-Gallon Poly Tank	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	NA	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	450	N/A	N/A	G			
173	0001	283092	VES GW	North Fuel Farm	Tank	1500-Gallon Poly Tank	024062	CH2M HILL	E.R.S.	22-Jun-05	FLD984261412	NA	10	Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A	22-Jun-05	05483	N/A	185	N/A	N/A	G			
174	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.		FLD984261412	170		Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A			N/A	50	N/A	N/A	G		Generated 11/16/05	
175	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.		FLD984261412	171		Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A			N/A	50	N/A	N/A	G		Generated 2/13/2006	
176	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.		FLD984261412	172		Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A			N/A	50	N/A	N/A	G		Generated 5/11/2006	
177	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.		FLD984261412	173		Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A			N/A	50	N/A	N/A	G		Generated 5/16/2006	
178	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.		FLD984261412	174		Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A			N/A	45	N/A	N/A	G		Generated 08/14/2006	
179	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.		FLD984261412	175		Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A			N/A	45	N/A	N/A	G		Generated 8/15/2006	
180	0001	283092	MW Purge Water	North Fuel Farm	Drum	55-Gallon Drum	024062	CH2M HILL	E.R.S.		FLD984261412	176		Industrial Water Services	FLD981928484	Liquid	Non Haz	N/A			N/A	45	N/A	N/A	G		Generated 8/16/2006	

Appendix K

Final Inspection Letter

DEPARTMENT OF THE NAVY
ENGINEERING FIELD ACTIVITY SOUTHEAST
RESIDENT OFFICER IN CHARGE OF CONSTRUCTION JACKSONVILLE
P. O. BOX 139,
BUILDING 13
JACKSONVILLE, FL 32212-0139

4330
05SS/05BS/05AM
N62467-03-D-0260-0001
April 18, 2005

From: Officer in Charge of Construction, Jacksonville, FL
To: Distribution

Subj: CONTRACT N62467-03-D-0260-0001, NORTH FUEL FARM SITE REMEDIAL ACTION, CECIL COMMERCE CENTER, JACKSONVILLE, FL

Ref: (a) SOUTHNAVFACENGCOMINST 4355.4C

Encl: (1) List of Attendees at Inspection/Punchlist

1. Pursuant to FAR 52.236-11, the Government Final Inspection of North Fuel Farm Site Remedial Action, Cecil Commerce Center, was held April 15, 2005. Warranty provisions as applicable became effective as of April 15, 2005. A list of those attending the inspection is included as enclosure (1). The Punchlist items at time of inspection are identified on enclosure (1).

2. For the Contractor: The contractor is relieved of maintenance and security of the facilities noted above. Warranty provisions as applicable will be made by Facilities Environmental Department (FED), Code 182DB, and should be handled promptly according to the urgency indicated by Code 182DB. If response is not within a reasonable time, based on the nature of the problem, the Government shall have the right to repair, replace, or otherwise remedy the situation and refer such charges to the contractor per FAR 52.246-21. All warranty responses shall provide to Code 182DB's representative, a written statement of the action taken.

3. For the Government: The above noted facilities are transferred to the Commanding Officer, Naval Air Station Jacksonville, FL, for use, maintenance and protection as of April 15, 2005. Per reference (a), all warranty items should be referred by telephone and followed up by letter to the prime contractor, AGVIQ-CH2MHILL-JVII, 115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346, Phone (770) 604-9182. If the contractor fails to respond within a reasonable time, based on the nature of the situation, the matter should be referred to this office for appropriate action.

N62467-03-D-0260-0001
NORTH FUEL FARM SITE, REMEDIAL ACTION
CECIL COMMERCE CENTER, JACKSONVILLE, FL

FINAL INSPECTION APRIL 15, 2005

LIST OF ATTENDEES:

Name	Organization
Brenda Schwelling	ROICC, JAX
Art Mosley	ROICC, JAX
Roberto Santos	ROICC, JAX
Joe Colella	AGVIQ – CH2M HILL
Sam Naik	AGVIQ – CH2M HILL
Scott Hendershot	AGVIQ – CH2M HILL
Randy Dumaop	AGVIQ – CH2M HILL

PUNCHLIST ITEMS: