Part 11

South Carolina Electric and Gas
V. C. Summer Nuclear Station, Units 2 & 3
COL Application

COLA Table of Contents Navigation Page

V. C. Summer Nuclear Station, Units 2 and 3

COL Application

Part 11

COLA Enclosure 1 —
Subsurface Report

Revision 0

FINAL DATA REPORT

RESULTS OF GEOTECHNICAL EXPLORATION AND TESTING
SCE&G COL PROJECT
V.C. SUMMER NUCLEAR STATION

Jenkinsville, Fairfield County, South Carolina
February, 2007

Prepared By:

MACTEC ENGINEERING AND CONSULTING

CHARLOTTE, NORTH CAROLINA

MACTEC PROJECT NUMBER 6234-06-3534

Submitted To:

BECHTEL POWER CORPORATION

Frederick, MD

BECHTEL SUBCONTRACT NUMBER 25242-102-HC4-CY00-00001

DCN SC360 Revision 2
2-28-2007

MACTEC

engineering and constructing a better tomorrow

February 28, 2007

Mr. James Robertson, P.E.
Project Manager
SCE&G COL Project
Bechtel Power Corporation
5275 Westview Drive
Frederick, MD 21703-8306

Phone: (301) 228-6085 Direct
(301) 228-6000 Main

Subject: **Data Report**
SCE&G COL Project
V.C. Summer Nuclear Plant
Subsurface Investigation and Laboratory Testing
Bechtel Subcontract No. 25242-102-HC4-CY00-00001
MACTEC Job No. 6234-06-3534

Dear Mr. Robertson:

MACTEC Engineering & Consulting, Inc., is pleased to submit this Data Report for the geotechnical exploration and laboratory testing for the SCE&G COL Project located adjacent to the existing V.C. Summer Nuclear Plant in Fairfield County, South Carolina. This Revision 2 corrects legibility of Tables 2A, 2B, and 2C from those submitted with Revision 1 dated February 16.

It has been a pleasure to perform the work described in the attached report. If you have any questions, or if we may be of further service, we hope that you will contact us at your convenience.

Very truly yours,

MACTEC ENGINEERING & CONSULTING, INC.

Michael D. Sufnarski, P.E.
Project Manager

Matthew F. Cooke ces

Matthew F. Cooke, P.G.
Senior Geologist
Site Superintendent
Registered SC 2363

Clay E. Sams

Clay E. Sams, P.E.
Senior Principal
Registered SC 3667

DCN SC360 Revision 2
2-28-2007

MACTEC Engineering and Consulting, Inc.
2801 Yorkmont Road, Suite 100 • Charlotte, NC 28208 • Phone: 704.357.8600 • 704.357.8638 www.mactec.com

TABLE OF CONTENTS

List of Tables

List of Figures

List of Attachments (Submitted under Separate Covers on Various Dates)

LIST OF ACRONYMS, SYMBOLS AND TERMINOLOGY

AP1000	Nuclear Technology by Westinghouse Electric Company
ASTM	American Society for Testing and Materials
Bechtel	Bechtel Power Corporation
bpf	blows per foot
BSRI	Bechtel Savannah River, Inc.
c	total cohesion
c'	effective cohesion
C'	bearing capacity index
C_c	compression index
C_e	SPT Energy Ratio to ER=60%
CD	consolidated drained triaxial test
cf	cubic feet
CH	highly plastic clay
CL	clay of low plasticity
C_n	vertical effective stress correction factor for SPT-N
COC	Chain of Custody
COE	Corps of Engineers
COL	Combined Construction and Operating License
CPT	cone penetration test sounding (used in lieu of SCPTU or CPTU where distinction is not important)
CPTU	piezocone penetration test sounding
C_r	recompression index
CU	consolidated undrained triaxial test
Cv	coefficient of consolidation
D_{50}	mean grain size
DCC	Document Control Center
DCN	Document Control Number
DOE	Department of Energy
D_r	relative density
EPA	Environmental Protection Agency
ER	Energy Ratio for Standard Penetration Test

e_o	initial void ratio
fps	feet per second
fr or FR	CPT friction ratio
fs	CPT sleeve stress (also called sleeve friction)
FS	factor of safety
ft	foot or feet
g	acceleration of gravity
G	shear modulus
GPS	Global Positioning System (See also RTK-GPS)
gINT	Geotechnical Data presentation Software provided by gINT, Inc.
G_{max}	low strain shear modulus
GW	groundwater table or groundwater depth
H	layer thickness
HSA	hollow stem auger
K	soil permeability coefficient (hydraulic conductivity)
K_a	active earth pressure coefficient
K_d	Distribution Coefficient
K_o	at-rest earth pressure coefficient
K_p	passive earth pressure coefficient
kip	1,000 pounds
km	kilometer
ksf	kips per square foot
LL	liquid limit
LL	Live Load, force or pressure
m/sec	meters per second
MACTEC	MACTEC Engineering and Consulting, Inc. f/k/a LAW
MH	high plasticity silt
micaceous	containing mica
ML	low plasticity silt
mm	millimeter
MOD	modified
MSL	mean sea level, ft

M&TE	Measuring and Test Equipment
N-value	Sum of second and third set of recorded blows from the SPT
N60, N_{60}	SPT N-value corrected to 60 percent energy ratio (ER)
N_1	SPT N-value normalized to 1 tsf
$(N_1)_{60}$	SPT N-value normalized to 1 tsf and 60% max. hammer energy ratio (also modified to account for room for liner but no sample liner used for Project)
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
MDD	maximum dry density, pcf (laboratory compaction test)
OCR	overconsolidation ratio
OD	outside diameter
OMC	optimum moisture content, % (laboratory compaction test)
OW	Observation Well
P	P-wave, compressional seismic wave
P	Pitcher Samples (UD, Soil Sampling)
p - q	total stress path strength parameters
p' - q'	effective stress path strength parameters
pH	Index of acidity
p_c or P_c	preconsolidation pressure (also called σ_c')
p_o or P_o	existing vertical effective stress (also called σ_o')
pcf	pounds per cubic foot
pci	pounds per cubic inch
PDA	pile driving analyzer
PI	plasticity index
PL	plastic limit
Pitcher	Pitcher Sampler (Undisturbed (UD) soil sampling, also see ST)
psf	pounds per square foot
psi	pounds per square inch
PWR	Partially Weathered Rock
QA	quality assurance
QAPD	Quality Assurance Project Document
QAR	Quality Assurance Representative

Q_a	allowable bearing pressure
q_c or Q_c	measured CPT tip resistance
$Q_{t,}$, q_{NT}	normalized CPT tip resistance $Q_t = (q_t - \sigma_{vo}) / \sigma'_o$
$q_{t,}$, qT	CPTU tip stress corrected for unequal area effects
$(q_c)_1$	CPT tip resistance normalized to 1 ton per square foot
QC	quality control
RC	Relative Compaction
RCTS	Resonant Column Torsional Shear (Laboratory Test)
REC	Recovery (Rock cores, SPT Samples, UD Samples)
RTK-GPS	
SCDHEC	South Carolina Department of Health and Environmental Control
SCE&G	South Carolina Electric & Gas Co.
r_u	pore water pressure ratio = $\Delta u / \sigma_0'$
SC	clayey sand
SCPTU	seismic piezocone penetration test sounding
slickenside surface	parting surface in sample with particles oriented parallel to surface, giving shiney appearance
SM	silty sand
SP	poorly graded sand
SPT	Standard Penetration Test
Specification	1) Bechtel Technical Specification 25242 000 3PS CY00 00001, Rev 4, Issued 12/7/06 Subsurface Investigation and Laboratory Testing.
SRP	Standard Review Plan
SRS	Savannah River Site of DOE
ST	Shelby tube (undisturbed (UD) soil sampling)
STD	standard
STDEV	standard deviation (also known as σ)
S_u	undrained shear strength
t	time
TP	Test Pit
tsf	tons per square foot
TX	triaxial

UD	undisturbed (soil sampling, either ST (Shelby Tube), pushed or P (Pitcher Sample), drilled
US	United States
USCS	Unified Soil Classification System (e.g. SM. SC, etc.)
USNRC	U. S. Nuclear Regulatory Commission
UU	Unconsolidated Undrained Triaxial Test
v_s	S-wave velocity (Shear wave velocity)
$(v_s)_1$	S-wave velocity normalized to 1 ton per square foot
WI	Work Instruction
WC or W	water content (moisture content)
WGI	Washington Group International
WSRC	Washington Savannah River Company
α	total stress path angle
α'	effective stress path angle
ε or γ	normal strain or shear strain
ε_r or γ_r	reference strain
ϕ	total stress friction angle
ϕ'	effective stress friction angle
γ	unit weight of soil
γ_s	saturated unit weight of soil
γ'	effective or buoyant unit weight of soil, $\gamma_s - \gamma_w$
γ_w	unit weight of water
ρ	mass density of the soil
σ	standard deviation
σ_1, σ_3	principal normal stresses
σ_c'	preconsolidation pressure
σ_o'	initial effective vertical stress
σ_v'	effective vertical stress
σ_{vo}	initial total vertical stress
τ	shear stress
υ	Poisson's ratio

SECTION 1
OVERVIEW

1.1 INTRODUCTION

MACTEC Engineering and Consulting (MACTEC) was retained by Bechtel Power Corporation (Bechtel) to conduct a geotechnical exploration and associated laboratory testing at the COL Project Site for South Carolina Electric and Gas Co. The site is located adjacent to the existing V.C. Summer Nuclear Station near the crossroads known as Jenkinsville in Fairfield County, South Carolina. MACTEC executed these services per Bechtel Subcontract Number 25242-102-HC4-CY00-00001.

The geotechnical services were completed as part of the combined construction and operating license (COL) project for South Carolina Electric and Gas Co. The field work commenced on April 10, 2006 and was substantially completed on August 18, 2006. Some borehole abandonment (grouting) activity occurred after August 18. Surveying field activities to locate the actual test locations were completed on September 18, 2006.

The Scope of Work was defined in Exhibit D of the Technical Specification, Bechtel Technical Specification 25242-000-3PS-CY00-00001, Rev 4, Subsurface Investigation and Laboratory Testing. The scope of work is briefly described below:

- Prepare and submit a quality plan (Quality Assurance Project Document).
- Submit a qualified Safety Program.
- Submit a Work Plan.
- Obtain permits to install the observation wells from SCDHEC.
- Provide quality assurance inspectors (surveillance) of the field and laboratory work activities.
- Locate exploration points by survey using coordinates contained in the specifications.
- Coordinate the location of overhead and underground utilities with plant personnel prior to advancing any exploratory activities (boreholes or test pits)
- Drill geotechnical and observation well exploratory borings at locations specified by Bechtel, adjust as necessary and as approved by Bechtel's representatives to accommodate access and utility conflicts. Geotechnical borings were completed at locations identified in Tables 2A and 2B.
- Conduct Standard Penetration Testing (SPT) to obtain samples of soil, undisturbed sampling of soil as directed by Bechtel field representatives, and rock coring to obtain samples of rock.
- Complete drilling, with soil and rock sampling, for Bechtel's planning for the installation of water level observations wells at 31 locations identified in Tables 2A and 2B.
- Install the observation wells adjacent to the sampled locations.
- Prepare field logs for all drilling and sampling and transfer all samples to a secure, on-site sample storage facility, provided by SCE&G.
- Seal all boreholes by grouting, except for those which observation (monitoring) wells were installed.
- Develop the observation wells and conduct field permeability testing using slug testing methods. A limited amount of field permeability testing using the double packer method was performed in four boreholes.
- Install locking well covers and concrete will pads at observation well locations.
- Collect ground water samples and analyze for water quality.

- Perform electronic cone penetrometer tests (CPT) in 36 locations; perform down-hole seismic tests; perform pore pressure dissipation tests at locations selected by Bechtel. The CPT numbers are identified in Tables 2A and 2B.
- Perform down-hole geophysical logging in 8 locations.
- Perform down-hole acoustic televiewer logging in 8 locations.
- Perform suspension P-S velocity logging in 8 locations
- Perform 4 pole field electrical resistivity tests along six arrays. These are identified on Page 6 of Table 2A and pages 5 and 6 of Table 2B.
- Excavate test pits at 4 locations determined by Bechtel. Obtain bulk samples of the excavated material as directed by the Bechtel field representative. The 4 corners of each test pit location are identified on Page 4 of Tables 2A and 2B. Two additional bulk samples were obtained from an off-site quarry's stockpiles of crusher screenings. This was the Martin Marietta North Columbia Quarry.
- Conduct laboratory testing on soil, rock and groundwater samples as assigned by Bechtel.

The work was completed under a Quality Assurance Program meeting the Code of Federal Regulations 10CFR50, Appendix B and conforming to the provisions of ANSI/ASME N45.2-1977.

This Data Report describes the field and laboratory testing methods and presents the results.

1.2 PERSONNEL

All work to prepare this report was performed by MACTEC with assistance from SCE&G in providing office space, office facilities, and the sample storage facility located at the (old) Nuclear Training Center, 1162 State Highway 213, Jenkinsville, SC 29065. This facility is now known as the NND office. After MACTEC completed its work at the site, the soil samples were placed on shelving installed in the tool storage room of the NND offices, and the boxes containing the rock core samples were relocated to a locked warehouse adjacent to the NND office building. The logistical assistance and NNSD Safety Training sessions given to numerous MACTEC and subcontractor personnel provided by Messrs. Robert Whorton, Duke Bell and James LaBorde of SCE&G are gratefully acknowledged. Bechtel site representatives during the field work were Garrett Day, Jennifer Dean, John Davie, Dr. Frank Syms, and Gerald Lefevre. MACTEC personnel and their responsibilities were:

Michael D. Sufnarski, P.E., Project Manager
Clay E. Sams, P.E., Senior Principal Engineer
Matthew F. Cooke, P.G., Site Superintendent (Site Coordinator)

Rig Geologist/Engineers:

Chris J. Gaskins, P.G.	Bill Sharp, P.G.	Jimmy Jordan, P.G.
Jeremiah Harmon	Chris Gandy	Chris Bruce, P.G.
Mandel Harvey	Kyle Miller	Stephen Woodham
Johnny Liles	Mike DePalma	Joseph Lachewitz

Karina Solis, Geologist, prepared gINT Boring Logs
Michael O. Hamlett, Drilling Coordinator, Laboratory Services Manager
James Starnes, Staff Engineer, Laboratory Test Checking
Brian Reinicker, P.G., P.E., Laboratory Testing Coordinator
Andrew Kottenstette, Quality Assurance Representative

John E. Lynch, Quality Assurance Manager
Robert E. Smith, P.E., Chief Engineer

The organizations that performed on-site work or laboratory testing of samples as part of this effort are listed in Table 1.

1.3 ORGANIZATION OF REPORT

This report and its attachments are organized in the following sequence; this report consists of the transmittal letter; table of contents; list of tables; list of figures; acronyms, symbols and terminology; text; tables; and figures. The attachments are in separate volumes submitted on various dates and are as follows:

Attachment	Contains
A	Survey Data and Test Locations
B	Geotechnical Borings Logs, (Soil and Rock Logs), Geotechnical Test Pit Logs, and SPT Energy Ratio Measurements
C	Observation Well Logs and Development Records, Slug and Packer Test Data
D	Cone Penetrometer Test Results
E	Geophysical Test Data (Downhole) Field Electrical Resistivity
F	Laboratory Testing Data (Geotechnical) (Except for RCTS tests, see Attachment I)
G	Field and Laboratory Testing Data (Groundwater)
H	Laboratory Testing Data (K_d, Distribution Coefficient)
I	Resonant Column Torsional Shear (RCTS) Tests

1.4 QUALITY ASSURANCE

Quality related activities performed by MACTEC and its subcontractors organizations during the work herein presented were in accordance with the MACTEC Quality Assurance Manual and the MACTEC Quality Assurance Project Document. The MACTEC QA program complies with NQA-1 Subpart 2.2 and to the requirements of 10CFR50 Appendix B.

SECTION 2
TEST METHODS

2.1 SURVEYING

The Surveyor was Glenn Associates Surveying, Inc. of Jenkinsville, South Carolina, a MACTEC subcontractor.

The surveying for the project was conducted in two phases. The initial phase was to complete ("stake") preliminary boring layout based on initial coordinates for test locations provided by the specifications. After completing an initial assessment of test locations and potential utility and access conflicts, relocation of some borings were proposed by MACTEC field personnel and approved by Bechtel. The relocation borings were referenced to the staked locations left by Glenn Associates by sketches showing the revised locations.

Some of the boring locations required bulldozer clearing to remove vegetation and/or to level the surface for drilling access. The stake marking the location was referenced to offset "witness points outside the area to be disturbed, and then re-established after the access was completed. Some locations, such as the observation wells, required multiple holes to be drilled (e.g. one hole to sample the soil and rock and establish the groundwater depth for guidance in setting of the well screen, and a nearby hole or holes for the observation wells themselves). In all cases, a marked stake was placed in the grouted, abandoned hole to mark the as-drilled location or, in the case of the observation wells, an engraved metal tag identifying the well location was affixed to the well cover.

Because of their work for SCE&G to prepare the topographic map for the COL site, a project control network had been previously established by Glenn Associates Surveying, Inc. and this was used for the basis for subsurface investigation location site staking.

Boring locations were staked using RTK-GPS when possible. When tree canopy or other obstructions occurred, coordinate traverse points were established using RTK-GPS. Then, conventional survey was used to stake planned boring locations from those established traverse points. Stakes were driven in place to mark the surveyed locations.

Glenn Associates performed their work under MACTEC's Quality Program. Calibration records for their surveying equipment was submitted to MACTEC. Daily field survey activities began with pre-data acquisition checks on the previously established project control monuments. The base receiver was set on project control point 1009. The survey crew collected control points (101, 1020, 1021) using a different quality check point number for each control point. A coordinate comparison was made in the field between the control monument coordinates and the quality check point coordinates for each control point observed to ensure matching coordinates. The daily boring site locations were then staked.

Daily field survey activities concluded with post-data acquisition checks on project control monuments. The survey crew collected a minimum of one control point (101, 1020, 1021) using a different quality checkpoint number than the morning quality check point number. A coordinate comparison between the control monument coordinates and post data acquisition check point coordinates was observed to ensure matching coordinates remained the same throughout the workday.

Daily survey activities concluded by preparing a daily quality assurance report. The report shows a point to point inverse comparison between control monument coordinates and quality check point coordinates and comparison between planned bore site locations and staked bore site locations.

The second phase of surveying was done after completion of drilling in a particular location. The surveyor returned to the site and determined the locations and elevations of the actual, as drilled boring and test pit locations. This information is contained in Table 2. Full details are contained in Attachment A.

2.2 UTILITY LOCATION

Representatives of MACTEC reviewed the intended boring locations with SCE&G personnel who could find no evidence that underground utilities might exist except at one minor location, that being the underground live utility line serving an on site air sampling station which leads from a nearby pole (about 10 feet away) and is obvious from field observation. Therefore, underground utility surveying methods were not required.

There are several overhead power lines on the site. The following pre-drilling activities were accomplished to avoid encounters with power lines:

1. The poles for the overhead power lines were marked with paint or flagging to make them more visible;
2. Each pole in the area where borings were planned was inspected for lines leading underground, such as the one near the air monitoring station; SCE&G was to be asked to check whether any lines thus located are energized;
3. Except for the obvious route of the short underground line at the air monitoring station, any other energized underground lines indicated in step (2) were to be traced for short distances and marked with paint on the ground surface so they could be avoided. If there were indications the underground line may pass near a boring, the locations within a 10 ft radius of the planned boring were marked; and
4. During the bulldozer clearing of trees, care was taken to avoid felling trees into the overhead lines or poles.

Excavation locations for test pits were also reviewed to avoid, as reasonably possible from field observations, encountering underground features such as visible storm drain pipelines or the like. However, such drains would not pose a safety hazard should they be encountered. If live underground utility lines were suspected from step (2) above, the locations of underground utilities within a 10-foot radius of each planned boring, cone penetrometer, observation well, or test pit were to be marked by representatives of SCE&G or MACTEC's Subcontractor. MACTEC would then review the marked locations with Bechtel and relocate exploration points which have utility interferences. Relocated points that are outside areas previously surveyed for live utilities were checked by the same procedure. New locations would be marked and reported to the MACTEC Site Coordinator who may arrange for survey location to be done.

2.3 DRILLING EQUIPMENT/METHODS

Drilling equipment mobilized to the site included the following:

Serial Marker	Owner	Drill Rig	Driller	SPT	Rock Core Sizes (1)
233517	Gregg	CME75	Burnett	Yes	NQ
90117	Trigon	Mobile B57	Toothman	Yes	HQ
212393	MACTEC	CME550	Akins	Yes	NQ
209195	MACTEC	CME55	Meyerson	Yes	NQ
285584	MACTEC	CME45	Gibson/Christian	Yes	NQ
190742	Trigon	CME850	Whichard	Yes	HQ
311025	Gregg	CME55	Smith, Burnett	Yes	HQ,NQ
219907	MACTEC	CME75	Oglesby	Yes	NQ
100	MACTEC	Diedrich D50	Skoglund/Cain	Yes	NQ
211797	MACTEC	CME75	Christian/Gibson	Yes	HQ,NQ
331145	MACTEC	CME55LC	White	Yes	HQ,NQ
X020158	Gregg	Fraste	Smith	No	NQ
337153	MACTEC	CME550	Banks	Yes	HQ,NQ
N/A	McCall	Ingersol-Rand T3W	Nichols, Sherrill	N/A (Air Rig for OWs)	N/A
N/A	Gregg	20Ton CPT Track-Mounted	Hyer, Aguilar	N/A (CPT Rig)	N/A – CPT
N/A	Gregg	RHINO	Poole	N/A (Auger Rig for OWS)	N/A

(1) NQ core is approximately 1 – 7/8 inches; HQ core is approximately 2 ½ inches; N/A = Not applicable; CPT = Cone Penetration Test

In addition, rubber-tired highway-type water tanker trucks were utilized to haul water for the drill rigs from the Parr Reservoir. A Caterpillar D-6 bulldozer was used for the initial access clearing by Little Mountain Construction Co., and a D-4 bulldozer owned by MACTEC was dedicated to the site for additional minor clearing or access assistance to the drills and water trucks, as needed.

A Caterpillar Model 416 rubber-tired backhoe from Little Mountain Construction Co. was used to excavate and then to backfill the shallow test pits for soil sampling purposes.

Borings for geotechnical purposes were advanced in soil using hollow stem auger (HSA) and mud rotary wash drilling techniques until refusal (defined as the physical inability to advance the hole using wash drilling procedures) was encountered. In some geotechnical borings, the HSA was used in the upper 15 ft or less. Borings for the Relocated Access Road were drilled using the hollow stem augers (HSA) because no rock coring was required and the SPT tests relevant to characterizing the conditions for the roadway were above the water table. In geotechnical borings except those in the Relocated Access Road, the drilling method for depths greater than 15 ft was mud rotary. Once refusal was encountered, and if required by the Specification, a steel or PVC casing was set, and the holes were advanced using wire-line rock coring equipment and procedures described in ASTM D 2113. A five foot or ten foot long "NQ" or "HQ" core barrel was used for all rock coring.

Fresh water obtained from Parr Reservoir was used for the majority of drilling and coring operations. A minor amount of fresh water was used during the first part of July, 2006 from a well located at the Fairfield Hydro Project. This well was utilized during rainy weather, which limited access to Parr Reservoir.

Exploratory borings for the OW locations may be classified as two types. The first type is those where the exploratory boring was not for geotechnical engineering information, but served only to obtain the information necessary for Bechtel to determine the depth for the OW screen. The soil portion of this type of exploratory boring may have been drilled with hollow-stem augers (HSA) and soil samples were obtained at approximately 5 ft depth intervals using the SPT sampler. These soil samples were suitable for laboratory testing but the SPT blow counts will not be used for geotechnical engineering purposes. The HSA drilling extended to the depth specified or to refusal to HSA drilling, and a one inch diameter PVC pipe (slotted) was placed in the boring as necessary to allow measurement of the water table depth over time for one to several days after the augers are removed. The depth to the water in the temporary PVC pipe was measured until the approximate stabilized water table depth was evaluated, after which the HSA boring was tremie grouted (using the one-inch PVC pipe as the tremie) and abandoned.

The second type of exploratory boring is one that is to be used for geotechnical information. In these, the drilling method was mud rotary (except within the upper 15 ft in some borings, where hollow stem augers were used) and the SPT samples were taken according to the Specification for the geotechnical borings. A temporary PVC pipe or other casing was used to keep these boreholes open, as necessary, to allow the water level within the borehole to equalize with the surrounding water table to provide the information necessary to determine the depth for the well screen(s) in the OW.

Following Bechtel's review of the exploratory borings including the depth to the water table as described above, the exploratory borings were filled with grout and abandoned. The observation wells were then installed using HSA, mud rotary, or air rotary drilling methods in accordance with the Specification and following Bechtel's directions for depth and other details. Diagrams of the wells are provided. The wells consist of PVC screen and riser pipe, sand filter pack, bentonite chips or pellets and cement bentonite grout. Protective steel well covers and concrete pads were placed at the surface as noted in the Specification.

Specific equipment used at each borehole is included on the borehole logs included in Attachment B.

All boreholes and the grouted-in PVC casings for geophysical tests plus the CPT locations were filled prior to demobilizing from the site using a cement-bentonite grout. The grout was placed by pumping through a tremie pipe. The grout mixture in Specification Section 4.13 (approximately 8 gallons of water and 2.5 pounds of bentonite per 94 pound sack of cement) was used.

2.4 SPT ENERGY MEASUREMENTS

SPT energy measurements were made on the drill rigs performing standard penetration testing (SPT). Energy measurements were recorded during sampling at the depth intervals shown in Attachment B, Table B-1. The length of the drill rod string, including the instrumented drill rod insert for each sample was generally 4 feet longer than the depth of the sample being collected.

The energy measurements were performed with a Pile Driving Analyzer (PDA) model PAK and calibrated accelerometers and strain gages. A section of appropriately sized drill rod, 2 feet long and instrumented with dedicated strain gages, was inserted at the top of the drill rod string immediately below the SPT automatic hammer. The inserted rod was also instrumented with two piezoresistive accelerometers that were bolted to the outside of the rod.

The work was done in general accordance with ASTM D 4633-05. The strain and acceleration signals were converted to force and velocity by the PDA, and the data was interpreted by the PDA according to the Case Method equation. The EFV method of energy calculation is recommended in ASTM Standard D4633-05. The maximum energy transmitted to the drill rod string (as measured at the location of the strain gages and accelerometers) was calculated by the PDA using the EFV method equation, as shown below:

$$EFV = \int F(t) * V(t) * dt$$

Where: EFV = Transferred energy (EFV equation), or Energy of FV
F(t) = Calculated force at time t
V(t) = Calculated velocity at time t

The EFV method of energy calculation is recommended in ASTM Standard D4633-05. The EFV equation, integrated over the complete wave event, measures the total energy content of the event using both force and velocity measurements. The EFV values associated with each blow analyzed were tabulated and averaged to obtain the average measured energy at each depth tested.
The ratio of the average measured energy to the theoretical potential energy of the SPT system (140 lb weight with the specified 30 inch fall) is the ETR.

The ETR range of the automatic hammers used at the site is 72% to 86.5% of the theoretical potential energy. These ETR values are at within the range of typical values for automatic hammers. The ETR values (as percent of the theoretical value) are shown in Attachment B, Table B-1.

2.5 SAMPLING IN GEOTECHNICAL BORINGS

2.5.1 Standard Penetration Test Sampling (SPT)

Soil sampling in the geotechnical borings using the SPT was conducted at intervals ranging from 2.5 feet within the upper 15 feet and thereafter at 5 feet using equipment and methods described in ASTM D 1586. For one boring in each Nuclear Island, the 2.5 ft sample interval was extended full depth of the soil to accomplish continuous sampling of the soil. Automatic Hammers were used to perform the SPT tests. The sampler was typically driven 18 inches in soil with blows recorded for each six inch interval of penetration. In very hard soils and weathered rock, driving was terminated at 50 blows and the actual penetration recorded, (e.g., 50 blows / 3 inches).

The split tube sampler was opened at the drill site and the recovered materials were visually described and classified by MACTEC's rig geologist or engineer. A selected portion of the sample (typically the material for the lower portion of the sample) was placed in a glass sample jar with a moisture proof lid. Sample jars were labeled, placed in cardboard boxes, and transported to the on-site storage area.

2.5.2 Rock Core Sampling

The technical specifications defined SPT refusal as 50 blows for 6 inches or less of penetration. For purposes of determining the depth at which to begin rock coring procedures, refusal to soil drilling was defined as physical inability to advance the hole using wash drilling procedures. In practice, the sampler was typically struck with 50 blows and the actual penetration measured and recorded on the boring logs. Rock recovered by the coring process, which was done according to ASTM D 2113, was carefully removed from the inner barrel and placed in wooden core boxes with wooden blocks used to mark ends of runs. When core recovery was less than 100%, the rig geologist placed foam, PVC, or wood spacers in the core box to stabilize the core laterally. Filled core boxes were taken to the on-site sample storage facility. Photographs of the cores were taken in the field. Digital (electronic) files containing the core photographs are included in Attachment B.

The rig geologist visually described the core and noted the presence of joints and factures, distinguishing mechanical breaks from natural breaks where possible. The rig geologist also calculated percent recovery and Rock Quality Designation, (RQD) prior to moving the core from the drill site. Field boring logs and photographs were used to document the drilling operations and recovered materials, and are retained in the DCC. The digital photographs are in the DVD in Attachment B. The construction of casing for completion of drilling was recorded on the casing installation field log, which is retained in the DCC. In borings to be geophysically logged, PVC casing was grouted in place in lieu of the temporary casing. Grouting was used to abandon all borings except the OWs to be used for groundwater monitoring, and the grouting is recorded on grouting field logs which are retained in the DCC. Boring results are summarized in Tables 2A, 2B and 2C.

2.5.3 Undisturbed Soil Sampling

Undisturbed soil samples were taken when directed by Bechtel, using a 3-inch thin-walled tube sampler in accordance with ASTM D 1587.

When subsurface material was too dense or hard to allow satisfactory samples to be recovered by pressing the tube sampler into the material, a Pitcher sampler was used where requested by Bechtel. The Pitcher is a rotary sampler drills the 3-inch tube into the subsurface material. All undisturbed samples were sealed at the top and bottom against moisture loss, labeled, kept in an upright condition and transported to the climate-controlled on-site storage area following ASTM D4220

2.6 BORING LOGS

The soil description on the boring logs in Attachment B are based on the field descriptions (ASTM D 2488) by the rig geologist or engineer, modified according to ASTM D 2487 where lab test results are available. The rock core descriptions in Attachment B are based on the rig geologist's or rig engineer's description. The water depths on these boring logs are from observations during drilling. Because water was introduced during rotary and core drilling, the water depths on the boring logs may not represent the stabilized water depths. For stabilized water depths, the information in Attachment C, Table C-7 should be consulted. The stabilized water depth at individual boring locations could be estimated by interpolation between the depths or elevations of stabilized water at the observation well locations in Attachment C, Table C-7. The boring logs in Attachment B were prepared using the computer program "gINT" (Version 7). Electronic files with gINT data were provided with Attachment B.

2.7 SAMPLING IN GEOTECHNICAL TEST PITS

Test pits were excavated at four locations identified by Bechtel (field-located). The rubber-tired backhoe was used to excavate the pits. The Bechtel field representative selected the materials to be sampled. A MACTEC rig geologist collected the bulk samples. As approved by Bechtel, the bulk samples were placed in new 5-gallon plastic buckets with handles for carrying. Two buckets of each sampled material were obtained. Glass jar samples were obtained and sealed for moisture retention. The backhoe was used to backfill the test excavation using the excavated materials. The backfilled materials were tamped in-place using the backhoe. The rig geologist placed a stake for later survey location.

The buckets and jar samples were labeled and transported to the on-site storage area. The rig geologist prepared a Geotechnical Test Pit Log based on visual description of the excavated materials according to ASTMD 2488. These descriptions were modified according to ASTM D 2487 where lab test results are available. The Geotechnical Test Pit Logs are included in Attachment B. The surveyed locations of the test pits are contained in Attachment A and Tables 2A and 2B herein.

2.8 OBSERVATION WELLS

2.8.1 Well Installation

Thirty one observation wells were installed on the site as part of this project – screened in the soil/weathered rock zone and in the rock. The wells were installed per Section 5.3 of the Specification.

Boreholes for installation of all observation wells were advanced using either hollow stem auger, mud rotary or air rotary drilling to make a nominal 6 inch hole diameter. The holes were advanced to depths specified by Bechtel's field representative.

As discussed in Section 2.3, the observation wells were installed in separate borings made nearby the geotechnical borings as instructed by Bechtel, with the exception of OW-227, OW-617, OW-622, and OW-625. The geotechnical borings B-227, B-617, OW-622, and B-625 were reamed out and/or deepened for installation of these associated monitoring wells. The lithology shown on the Observation Well Logs for OW-227, OW-617, OW-622, and OW-625 is from the borehole in which the well was installed. The lithology shown on the remainder of the Observation Well Logs is from the nearby companion geotechnical borehole. The geotechnical borings were generally made between about 5 and 20 feet from the observation well (See survey coordinates for actual offset distance).

Upon reaching the designated depth for a well, slotted PVC casing connected to solid sections was set. A sand pack and bentonite seal were then placed. A grout plug was placed from the top of the bentonite seal to the ground surface to each borehole. The grout mix specified in Section 4.13 of the Specification was used.

The depth of the screened interval, length of the screen and general well configuration were designated in the field for each well by Bechtel's field representative. Since the ground surface elevations at the wells sites were not determined until after the well pads were placed, the top of the PVC casing elevation, less the casing stickup above ground surface as measured at the time of installation, was used to back-calculate the ground surface elevation shown on the observation well logs. All water depth measurements are referenced to the top of the PVC casing. The elevation of the top of the casing was also used along with measurements of the well sections to calculate elevations for the well monitoring interval.

Construction details for all 31 wells are included in Appendix C-1 Attachment C.

All wells were capped with a lockable steel well cover extending approximately two feet above grade. A concrete pad, two feet square and six inches thick, was also placed around each well cover per the Specification.

A summary Table with pertinent observation well information is provided in Attachment C, Table C-1.

2.8.2 Well Development

After well installation was completed, wells were developed by pumping and bailing. The development procedure agreed to with Bechtel was first to bail until the water shows minimal sediment, then pump to remove at least 3 standing well volumes of water, cycling the pump on and off to create a surging effect. A well was considered developed when the pumped water was reasonably clear of suspended sediment and relatively clear to sight.

All wells were developed satisfactorily using the planned procedure. Well development records are included in Attachment C, Appendix C-2.

2.8.3 Field Permeability Tests

2.8.3.1 Slug Tests

Field permeability testing was conducted in each observation well (except OW 501)using procedures described in Section 8 of ASTM D 4044. This procedure is commonly termed the slug test method. Slug testing involves establishing a static water level, lowering a solid cylinder into the well to cause an increase of water level in the well and monitoring the time rate for the well water level to return to the pre-test static level. This method is commonly called the "slug-in" method. After that stabilization, the slug is rapidly removed to create a lowering of the water level in the well, and the time rate for water to recover to the pre-test static level is recorded. This method is commonly called the "Slug-out" method. Electronic transducers and data loggers are used for measuring the water levels and times during the test.

Attachment C, Table C-2 is a Slug Test Data Summary Sheet. Charts (graphs) of the water surface versus time during the slug tests are in Attachment C, Appendix C-3. The test data, the data logger output sheets, are contained on the CD included in Attachment C.

2.8.3.2 Packer tests

Field permeability testing by the packer method was conducted in selected exploratory borings using test procedures described in ASTM D 4630, modified to use a manually read flow meter rather than a digitally recorded one. The packer testing method involved establishing and maintaining a constant pressure in the packer test interval or test length, measured by an electronic transducer, and determining the rate of inflow associated with maintaining the pressure. The test method is thus know as the constant head injection test". Five pressure values were generally used in each test interval. The boring locations for packer testing were identified in Bechtel's letter No. 25242-102-T14-CY00-00022 dated June 9, 2006.

That letter changes the test location and depths shown in the Specification to a scope of two test lengths (packer intervals) in each of four borings (B205, B212, B305, and B330). Boring B212 displayed difficulty in inserting the packers leading to concern about retrieving the packer assembly from the bore hole. Accordingly, Bechtel changed the requested test location from B212 to B201. Bechtel also requested a test length (packer interval) of 10 feet in all the tested borings instead of 5 feet as stated in the Specifications.

The purpose of the packer testing was to establish coefficient of permeability (also called hydraulic conductivity) of the rock in the packer test length. Attachment C, Tables C-3 through C-6 show the calculated coefficient of permeability from the packer tests. Attachment C, Figures C-1 through C-4 show the flow rate versus pressure. The CD with the test data is included in Attachment C.

2.8.4 Water Level Measurements

On June 23, 2006 and again on July 25, 2006, MACTEC representatives checked water levels in all wells installed plus additional wells designated by Bechtel. Measurements were made using an electric water level meter and referenced to the notched top of the casing. Water levels recorded are shown in Table C-7 in Attachment C.

2.9 CONE PENETOMETER TESTING

Locations for 36 Cone Penetrometer Tests, (CPT) were included in the original scope of work for this project. Specified probe depths were to refusal (the limit of the pushing capacity of the CPT rig) except for certain locations where a maximum depth of 40 feet was assigned.

CPT testing was completed by Gregg Drilling and Testing, Inc. (Gregg), a subcontractor to MACTEC. Gregg utilized a 20 ton self-contained rig mounted on a tracked ATV carrier to complete the work. Seismic testing was completed in eight of the CPTs at intervals of one meter. Pore pressure dissipation tests were performed in six of the CPTs. All testing was done in accordance with project Specifications and ASTM 5778. The CPT Data are found in Attachment D.

2.10 BOREHOLE GEOPHYSICAL LOGGING

Downhole geophysical logging was performed in 8 borings as required by the Specifications. GEOVision, a MACTEC subcontractor, performed this work in accordance with ASTM D 5753. The results are found in Attachment E. The following down hole geophysical logs were performed in the selected borings.

2.10.1 Natural Gamma

Gamma logs record the amount of natural gamma radiation emitted by the soil and rocks surrounding the boring.

2.10.2 Long and Short Normal Resistivity

Normal-resistivity logs record the electrical resistivity of the borehole environment and surrounding rocks and water as measured by variably spaced potential electrodes on the logging probe. Typical spacing for potential electrodes are 16 inches for short-normal resistivity and 64 inches for long normal resistivity. Normal resistivity logs are affected by bed thickness, borehole diameter, and borehole fluid and can only be collected in water or mud filled open holes.

2.10.3 Three Arm Caliper

Caliper logs record borehole diameter. Changes in borehole diameter are related to boring construction, such as casing or drilling bit size, and to fracturing or caving along the borehole wall. Because borehole diameter commonly affects log response, the caliper log may be useful in the analysis of other geophysical logs.

2.10.4 Data

Data was recorded in digital format and are contained in Attachment E. Also contained in Attachment E are printout of the geophysical logs and the associated lithology.

2.11 BOREHOLE ACOUSTIC TELEVIEWER LOGGING

Televiewer logging was performed in 8 borings as required by the Specifications. GEOVision, a MACTEC Subcontractor, performed this work. The acoustic televiewer measures amplitude and travel time of the reflected acoustic signal and produces a magnetically oriented photographic image of the acoustic reflectivity of the boring wall.

The acoustic televiewer is limited to open boreholes filled with water or drilling mud.

The acoustic televiewer field data, in digital format, are contained in Attachment E, along with televiewer logs and a tabulated summary of the interpreted discontinuities.

2.12 SUSPENSION P-S VELOCITY LOGGING

Suspension P-S velocity logging was performed in 8 borings as required by the Specifications. Compression (P) and shear (S) were velocity measurements were made at 1 meter intervals or less. Attachment E contains the results.

2.13 FIELD ELECTRICAL RESISTIVITY TESTING

Field electrical resistivity testing was performed along 6 arrays in the proposed switch yard area of the site. The locations were adjusted from those in the Specifications with approval of Bechtel due to topographic features and extensive clearing requirements associated with the initial locations. The Wenner four electrode method was used to perform the tests in accordance with ASTM G57. Electrode spacing ranging from 3 feet up to 300 feet were used in order to determine the soil resistivity at increasing depths. The resistivity data interpreted from the tests are contained in Attachment E.

SECTION 3
SAMPLE STORAGE

3.1 ON-SITE SAMPLE STORAGE FACILITY

Consistent with MACTEC's QAPD Requirements, an on-site sample storage facility was established. The sample storage facility was provided by SCE&G by designating a lockable sample storage room in their old Nuclear Training Facility, 1162 State Highway 213, Jenkinsville, S.C. 29065. This facility is now known as the NND facility. After MACTEC completed its work, the soil samples were placed on shelving installed in the tool storage room of the NND facility, and the boxes of rock core samples were relocated to a locked warehouse adjacent to the NND facility. This facility, as indicated on Figure 2, is conveniently located south of the existing V.C. Summer Station and the proposed site. The facility is fully climate controlled.

Samples were transported daily from the field to the sample storage room by the rig geologists/engineers. SPT samples were transported as Group "B" samples in their compartmentalized cardboard boxes, each labeled to show the contents therein. The rock cores were transported in their wooden core boxes, kept horizontal and each labeled to show the contents. The UD samples were transported according to ASTM D4220, Group C samples.

Since copies of the field boring logs were kept at the facility, their logs served as the sample inventory for the storage facility. A chain of custody form was completed for all samples removed from the facility.

SECTION 4
LABORATORY TESTING - GEOTECHNICAL

Laboratory testing was performed on disturbed, undisturbed, and remolded soil samples, and on rock cores obtained during the subsurface investigation. All testing was performed in accordance with ASTM standards or other standards where applicable. Selection of the samples to be tested and the tests to be performed on the samples were done by Bechtel. Bechtel provided Geotechnical Laboratory Test Assignment Sheets dated July 7, August 10, August 24, October 5, 2006 and December 4, 2006. Each later assignment sheet supplemented the earlier sheets with new assignments.

The laboratory personnel determined that some of the assigned tests on soil samples could not be performed because of insufficient sample volume. Some of the rock cores on which tests were assigned contained fractures or geometric characteristics that made them unsuitable to test; this information was reported to Bechtel and they assigned replacement tests on other samples.

Testing of soil and rock samples, except for chemical tests, distribution coefficient and resonant column torsional shear (RCTS) testing, was done in MACTEC's laboratories in Charlotte, North Carolina and Atlanta, Georgia.

Chemical testing for pH, sulfates and chlorides in selected soil samples as assigned by Bechtel was done by Severn Trent Laboratories, Inc. (STL), a subcontractor to MACTEC.

The distribution coefficient, Kd, was determined by the Savannah River National Laboratory, located at the Savannah River Site of the DOE in Aiken, South Carolina and operated by the Washington Savannah River Company. The Washington Savannah River Company LLC, under a Work for Others Agreement with MACTEC, performed the Kd tests. The Kd tests are presented in Attachment H.

Resonant Column Torsional Shear (RCTS) testing of soil samples as assigned by Bechtel was done by the Fugro Consultants laboratory in Houston, Texas, a subcontractor to MACTEC, under the technical overview of Dr. K.H. Stokoe of the University of Texas. The tests on the samples selected for RCTS testing, including the classification tests on these samples, are presented in Attachment I.

Excluding the Kd and RCTS tests, the following tests were assigned, performed and the results are presented in Attachment F:

4.1 IDENTIFICATION TESTS

- Moisture content, ASTM D 2216-05
- Atterberg limits, ASTM D 4318-05
- Sieve and hydrometer analysis, ASTM D 422-63 (2002) and ASTM D 6913-04
- Specific gravity of soil, ASTM D 854-06
- Chemical analysis, (pH, Chloride, Sulfate) EPA SW846 9045C and EPA MCAWW 300.0A
- Unit weight of soil, ASTM D 5084-03 (Sections 5.7 – 5.9. 8.1, 11.3.2)

4.2 COMPRESSIBILITY TEST

- Consolidation tests, ASTM D 2435-04

4.3 COMPACTION AND STRENGTH TESTS

- Unconsolidated-undrained triaxial compression, ASTM D 2850-03
- Consolidated – undrained triaxial compression, ASTM D 4767-04
- Direct shear – Soil, ASTM D 3080-04
- Moisture-density, ASTM D 1557-02
- CBR testing, ASTM D 1883-05
- Specimen preparation – Rock Cores, ASTM D 4543-04
- Compressive Strength and Elastic Moduli – Rock Cores, ASTM D 7012–04

4.4 REPORTING

Except for the Kd and RCTS tests, the laboratory test reports, consisting of individual test data and results sheets as required by the testing standard, are contained in Attachment F. A summary of the test results on soil samples in Attachment F is found in Table 6-1 of the Data Report, which is Table F-1 of Attachment F. The compaction and CBR tests on the remolded soil samples are summarized in Table 6-2, which is Table F-2 of Attachment F. The summary of the test results on rock core samples in Attachment F is provided in Table 6-3, which is Table F-3 of Attachment F. The distribution coefficient tests (Kd) are found in Attachment H. The RCTS tests, including the data and report reviewed by Dr. K. H. Stokoe, are found in Attachment I. The classification tests on the RCTS tests are also found in Attachment I.

4.5 DESCRIPTIONS

Brief descriptions of the tests performed are contained in Attachment F.

SECTION 5
WATER SAMPLING, FIELD AND LABORATORY TESTING

Water sampling of the observation wells and field and laboratory testing was done as described in the Specifications.

5.1 WELL DEVELOPMENT

Well development was described in Section 2.5.2 of this report, and the results are contained in Attachment C.

5.2 WELL PURGING AND WATER SAMPLING

Water sampling was performed using a submersible pump placed approximately one foot above the bottom of the well. The sampling method used was consistent with "sampling based on fixed volume combined with indicator parameter stabilization" as described in ASTM D 6452.

Well purging was performed until field-measured water quality indicator parameters "stabilized" and at least three well volumes were purged, as measured by MACTEC and agreed upon by Bechtel.

Groundwater sampling and testing were performed as required by the specification or modified as agreed by Bechtel. The specification requires a combination of Fixed Volume Purging (ASTM D6452, Section 7.1, and Purging Based on Stabilization of Indicator Parameters (ASTM D6452, Section 7.2), and requires that at least three well volumes (including the saturated porous volume of the filter pack) be removed from the well and stabilization of the indicator parameters to occur. This was modified as follows, per Bechtel's instructions: Should wells go dry during the purging before sampling; the following procedure will be followed:

1. When possible, decrease the flow rate as low as possible and monitor the specified field (indicator) parameters during well purging activities. If the parameters have stabilized, proceed with collecting the required water samples for laboratory analyses regardless of if three well volumes have been removed form the well.
2. If the well is purged dry prior to parameter stabilization, allow the well to recover and collect the required water samples per USEPA, Region 4 Environmental Investigation Standard Operating Procedures and Quality Assurance Manual. Obtain final field parameter readings. (Reference EPA Region 4 Manual EISOPQAM Nov. 2001.)

The samples collected were controlled by the procedures provided in Attachment 7 of the Work Plan.

Field instruments, (whose calibration records are contained in the Appendix to Attachment G herein), were used to measure indicator parameters as specified. The field indicator parameters which were measured are temperature, pH, electrical conductivity (specific conductance), turbidity, oxidation-reduction potential (Eh or redox), and dissolved oxygen, in accordance with ASTM D 6452. Field measurement methods complied with appropriate standards for these parameters:

- Temperature – EPA Method 170.1.

- pH - ASTM 1293 (Method B), or EPA Method 150.2, or EPA Method 9040B or 9041A (SW 846).
- Electrical conductivity – ASTM D 1125, or EPA Method 120.1, or EPA Method 9050A (SW 846).
- Turbidity – ASTM D 1889, or EPA Method 180.1.
- Oxidation-reduction potential – ASTM D 1498.
- Dissolved oxygen – ASTM D 4562 or D 888 (Method B), or EPA Method 360.1.

Water sampling was performed using a submersible pump placed approximately one foot above the bottom of the well. The sampling method used was consistent with "sampling based on fixed volume combined with indicator parameter stabilization" as described in ASTM D 6452. The pumping rate during well sampling was kept low enough to minimize sample turbidity, sample aeration, bubble formation, and turbulent filling of sample containers.

5.3 SAMPLE CONTAINERS AND SHIPPING

Only sample containers obtained from the testing laboratory were used for collecting water samples. The laboratory indicated on each sample container the laboratory analysis which is to be performed, and the preservative which was added to the container. Samples were shipped to the testing laboratory using coolers.

5.4 LABORATORY ANALYSES OF SAMPLES

Laboratory testing for general water quality parameters was performed as assigned by Bechtel and consisted of those listed below:

- Total dissolved solids – EPA Method 160.1
- Inorganic ions (bromide, chloride, fluoride, sulfide) – EPA Method 300.0
- Alkalinity (bicarbonate/carbonate) – EPA Method 310.1
- Ammonia – EPA Method 350.1
- Nitrate/nitrite –EPA Method 353.1
- Cation/anion balance – Laboratory standard procedures.

It is noted that results for cation/anion balance could not be calculated and reported as no analysis for cations was requested.

The laboratory results are summarized herein in Table G-1.

5.5 DECONTAMINATION AND CLEANING

All equipment, accessories, tools and supplies used for measurement of field parameters were kept decontaminated following ASTM D 5088. The equipment and tools were decontaminated before work began, between each well, at the completion of the work or as directed by Bechtel.

5.6 REPORTING

Attachment G contains the results of the work described in this Chapter. Table 7, which is the same as Table G-1 in Attachment G, summarizes the laboratory test results on the groundwater samples.

SECTION 6
K_d TESTING OF SOIL AND ROCK

Specialized testing for the distribution coefficient, K_d, of soil and rock samples assigned by Bechtel is performed at the Savannah River National Laboratory of the DOE at the Savannah River Site near Aiken, South Carolina. Dr. Dan Kaplan will perform these tests as assigned by Bechtel. These results are present in Attachment H.

SECTION 7
RCTS TESTING OF SOIL

Resonant Column - Torsional Shear (RCTS) testing of soil samples assigned by Bechtel is performed by Fugro Consults of Houston, Texas, and the results are reviewed by Dr. K.H. Stokoe of the University of Texas, Austin. These test results as well as the classification tests for the undisturbed samples upon which RCTS testing is performed are contained in Attachment I. Classification test results for two remolded samples on which RCTS tests are performed are contained in Attachment F and are also repeated in Attachment I.

List of Tables

Organization	Function
MACTEC Engineering and Consulting, Inc.	SPT tests; Core Drilling; Undisturbed Sampling; Bulk Sampling; Geotechnical Laboratory Testing for Soil and Rock samples; SPT Energy Measurement on Drill Rigs of MACTEC and Subcontractors; Slug Testing; installation of silt fencing where indicated by SCE&G.
Gregg Drilling and Testing, Inc.	SPT Tests; Core Drilling; Undisturbed Sampling; Observation Well Installation; CPT Tests
Trigon Engineering Consultants, Inc.	SPT Tests; Core Drilling
Washington Savannah River Co. Savannah River National Laboratory	K_d Tests
McCall Brothers, Inc.	Observation Well Installation
STL Laboratories	Laboratory Chemical Testing Soil & Water Samples
Miller Drilling, Inc.	Packer Testing
GEOVision	Downhole geophysical logging; natural gamma; short and long normal resistivity; 3 arm caliber; acoustic televiewer; p-s suspension logging; field electrical resistivity test arrays.
Glenn Associates Surveying, Inc.	Surveying of borings, observation wells, CPTs, test pits and field electrical resistivity tests
Little Mountain Construction	Clearing for access and grading as necessary for drill access to boring and OW locations; installation of silt fencing where indicated by SCE&G; excavation of test pits
Fugro Consultants – Houston, Texas	RCTS Tests
Prof. K.H. Stokoe, University of Texas / Austiin Consultants	Review of RCTS Tests

TABLE 1
ORGANIZATIONS PERFORMING WORK AT THE SITE OR IN THE LABORATORY

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Top of Fill (ft, bgs)	Top of Alluvial Soil (ft, bgs)	Top of Residual Soil (ft, bgs) [1]	Top of Saprolite (ft, bgs) [1]	Top of PWR (ft, bgs) [1]	Top of Rock (ft, bgs) [4]	Top of Sound Rock (ft, bgs) [8]
B-201(DH)	Nuclear Island/Down-hole Geophysical	892740.9	1903285.1	423.7	350.0	NE	NE	0.0	18.5	38.8	50.3	62.2
B-201UDP [2]	Nuclear Island/Down-hole Geophysical	892737.8	1903293.2	423.8	47.0	NE	NE	NE	NE	NE	NE	NE
B-202	Nuclear Island	892792.7	1903302.6	423.9	175.5	NE	NE	0.0	18.5	NE	46.0	64.0
B-203	Nuclear Island	892696.1	1903268.9	423.5	151.5	0	NE	1.0	22.0	NE	51.5	51.5
B-204	Nuclear Island	892754.6	1903400.2	424.5	150.0	NE	NE	0.0	23.5	47.0	47.0	79.0
B-205	Nuclear Island	892840.4	1903199.2	423.1	175.0	NE	NE	0.0	41.5	54.0	54.0	65.0
B-206(DH)	Nuclear Island/Down-hole Geophysical	892683.5	1903416.2	424.3	214.8	NE	NE	0.0	19.0	NE	72.0	76.0
B-207(DH)	Power Block/Down-hole Geophysical	892824.8	1902949.7	423.9	175.0	0	NE	0.5	8.5	38.5	43.0	50.0
B-208	Power Block	892989.8	1902925.3	422.0	10.5	NE	NE	0.0	NE	NE	NE	NE
B-208A [3]	Power Block	892990.7	1902928.9	421.7	115.0	NE	NE	0.0	22.0	33.5	34.5	91.5
B-209	Power Block	893015.1	1903210.9	407.9	150.0	NE	NE	0.0	23.5	53.5	54.0	83.0
B-210	Power Block	892842.5	1903457.4	416.5	115.0	NE	NE	0.0	13.5	59.7	66.0	76.0
B-211(DH)	Adjacent to Power Block/Down-hole Geophysical	892570.0	1903213.8	422.2	176.0	NE	NE	0.0	5.5	NE	42.0	45.0
B-211A [3]	Adjacent to Power Block/Down-hole Geophysical	892568.4	1903205.5	421.8	39.0	NE	NE	NE	NE	NE	NE	NE
B-212	Adjacent to Power Block	893100.7	1903027.4	397.2	68.5	NE	NE	0.0	18.5	50.5	68.5	NE
B-212A [3]	Adjacent to Power Block	893099.4	1903031.8	397.8	115.4	NE	NE	NE	NE	55.0	56.0	83.2
B-213	Adjacent to Power Block	892986.5	1903458.5	401.5	150.0	NE	NE	0.0	13.5	58.0	59.2	69.8
B-214	Power Block	892735.7	1903158.7	423.4	115.0	NE	NE	0.0	8.0	34.3	38.5	54.3
B-215	Power Block	892789.9	1903053.3	423.4	175.0	NE	NE	0.0	3.5	48.5	48.5	53.8
B-216	Power Block	892871.6	1902884.1	423.1	85.0	NE	NE	0.0	6.5	27.0	48.0	54.7
B-216UDP [2]	Power Block	892863.6	1902876.4	423.1	40.5	NE	NE	NE	NE	NE	NE	NE
B-217	Power Block	892933.8	1902898.3	423.3	175.0	NE	NE	0.0	6.0	49.8	51.0	74.0
B-218	Power Block	892898.9	1902973.4	423.0	115.0	NE	NE	0.0	13.5	41.0	58.5	80.0
B-218UDP [2]	Power Block	892909.2	1902978.1	422.8	50.5	NE	NE	NE	NE	NE	NE	NE
B-219	Power Block	892859.6	1903080.5	423.0	86.0	0	NE	0.5	13.5	47.5	52.0	76.0
B-220	Power Block	892976.3	1903010.5	421.5	105.0	0	NE	0.5	22.0	62.0	73.8	85.0
B-221	Power Block	892928.8	1903108.9	421.7	69.5	0	NE	1.5	11.0	58.0	69.5	NE
B-221A [3]	Power Block	892934.9	1903109.9	421.6	91.2	NE	NE	NE	NE	NE	60.0	86.2
B-222	Power Block	892879.6	1903150.9	423.2	115.0	NE	NE	0.0	23.5	58.5	58.5	59.5
B-223	Power Block	892961.9	1903324.3	410.5	85.3	NE	NE	0.0	16.8	38.5	40.7	66.7
B-224	Power Block	892895.9	1903344.4	419.2	116.2	NE	NE	0.0	18.5	53.5	69.5	69.7
B-224UDP [2]	Power Block	892889.9	1903354.9	419.0	55.5	NE	NE	NE	NE	NE	NE	NE
B-225	Power Block	892926.5	1903216.4	425.2	85.0	NE	NE	0.0	16.0	33.5	34.0	65.6
B-226	Power Block	892723.8	1903532.7	422.3	112.5	NE	NE	0.0	11.0	NE	71.0	79.5
B-227	Adjacent to Power Block	892494.0	1903408.0	425.1	54.5	NE	NE	0.0	3.5	51.5	NE	NE
B-228	Adjacent to Power Block	892304.0	1903395.0	419.2	85.1	NE	NE	0.3	13.0	NE	55.5	72.0
B-229	Adjacent to Power Block	892394.7	1903147.6	423.2	85.7	NE	NE	0.0	13.0	55.0	55.2	58.8
B-230	Adjacent to Power Block	892658.4	1903033.9	424.5	85.3	NE	NE	0.0	5.5	36.5	39.3	42.0
B-231	Adjacent to Power Block	892519.0	1902844.2	428.4	115.0	NE	NE	0.0	8.5	51.0	54.4	54.4
B-232	Adjacent to Power Block	892767.1	1902865.1	424.0	55.4	NE	NE	0.0	18.5	NE	35.4	40.5
B-233	Adjacent to Power Block	892784.5	1902686.9	426.1	75.0	NE	NE	0.0	8.5	NE	37.4	46.5
B-234	Adjacent to Power Block	893072.0	1902801.4	421.1	55.0	NE	NE	0.0	21.5	NE	NE	NE

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Top of Fill (ft, bgs)	Top of Alluvial Soil (ft, bgs)	Top of Residual Soil (ft, bgs) [1]	Top of Saprolite (ft, bgs) [1]	Top of PWR (ft, bgs) [1]	Top of Rock (ft, bgs) [4]	Top of Sound Rock (ft, bgs) [5]
B-235	Adjacent to Power Block	893192.6	1902941.0	379.4	85.5	NE	NE	0.0	23.5	48.5	62.5	76.0
B-236	Adjacent to Power Block	893133.1	1903296.0	374.7	27.3	NE	NE	0.0	8.5	NE	27.3	NE
B-236A [3]	Adjacent to Power Block	893140.6	1903298.7	374.4	115.1	NE	NE	NE	NE	32.0	38.5	78.0
B-301(DH)	Nuclear Island/Down-hole Geophysical	891906.9	1902949.2	417.1	129.8	NE	NE	0.0	12.5	NE	58.0	60.0
B-301A [3]	Nuclear Island/Down-hole Geophysical	891895.0	1902945.0	416.2	350.9	NE	NE	NE	NE	NE	54.5	58.5
B-302	Nuclear Island	891954.5	1902970.9	417.2	175.8	NE	NE	0.0	10.0	NE	53.5	60.0
B-303	Nuclear Island	891861.4	1902923.5	415.1	150.0	NE	NE	0.0	21.5	NE	51.5	56.0
B-304	Nuclear Island	891921.7	1903063.2	415.3	150.0	NE	NE	0.0	13.0	NE	52.7	55.5
B-305	Nuclear Island	892004.9	1902859.1	423.9	175.0	NE	NE	0.0	32.0	51.5	57.5	60.6
B-305UDP [2]	Nuclear Island	891997.6	1902844.2	424.0	55.5	NE	NE	NE	NE	NE	NE	NE
B-306(DH)	Nuclear Island/Down-hole Geophysical	891854.8	1903077.2	413.4	215.0	NE	NE	0.0	13.0	43.5	44.5	50.8
B-307(DH)	Power Block/Down-hole Geophysical	891989.1	1902613.3	402.6	176.0	NE	NE	0.0	8.0	38.5	40.0	40.0
B-307A [3]	Power Block/Down-hole Geophysical	891982.7	1902610.6	402.4	40.0	NE	NE	NE	NE	NE	NE	NE
B-308	Power Block	892154.5	1902587.6	418.3	115.0	NE	NE	0.0	6.0	NE	39.5	46.4
B-309	Power Block	892160.7	1902842.7	422.6	150.0	NE	NE	0.0	8.5	NE	46.5	57.5
B-310	Power Block	892010.5	1903114.7	417.0	105.8	NE	NE	0.0	3.5	NE	53.3	55.0
B-311(DH)	Adjacent to Power Block/Down-hole Geophysical	891747.1	1902871.4	419.5	175.0	NE	NE	0.0	38.5	52.0	56.5	72.0
B-312	Adjacent to Power Block	892269.4	1902694.0	425.2	115.0	NE	NE	0.0	16.5	31.5	35.0	41.7
B-313	Adjacent to Power Block	892151.4	1903120.7	420.5	150.0	NE	NE	0.0	23.5	46.5	61.0	61.0
B-313A [3]	Adjacent to Power Block	892138.9	1903121.8	420.1	35.0	NE	NE	NE	NE	NE	NE	NE
B-314	Power Block	891905.1	1902819.6	417.8	115.0	NE	NE	NE	NE	NE	59.0	60.0
B-314A [3]	Power Block	891905.0	1902814.2	417.9	59.0	0	NE	9.5	21.0	NE	NE	NE
B-315	Power Block	891945.4	1902714.1	413.4	175.0	0	9	NE	18.5	43.0	43.0	60.0
B-316	Power Block	892005.9	1902534.6	401.2	85.0	0	NE	8.5	23.5	NE	37.0	47.6
B-317	Power Block	892095.2	1902571.1	415.5	175.3	NE	NE	0.0	9.0	25.0	27.0	49.2
B-317A [3]	Power Block	892095.9	1902567.2	415.3	27.0	NE	NE	NE	NE	NE	NE	NE
B-318	Power Block	892066.6	1902642.7	420.2	115.2	NE	NE	0.0	10.5	48.5	49.0	55.7
B-319	Power Block	892046.7	1902720.5	420.5	85.5	NE	NE	0.0	13.5	48.5	48.5	59.8
B-320	Power Block	892140.4	1902674.8	422.5	115.0	NE	NE	0.0	8.0	NE	50.5	50.5
B-321	Power Block	892101.3	1902773.3	422.8	85.1	NE	NE	0.0	5.5	54.8	55.0	55.5
B-322	Power Block	892048.6	1902812.5	425.3	115.5	NE	NE	0.0	13.5	48.5	48.5	65.4
B-323	Power Block	892134.3	1902992.0	420.1	84.9	NE	NE	0.0	8.5	45.0	46.7	48.0
B-324	Power Block	892054.4	1903009.4	419.4	115.2	NE	NE	NE	0.0	NE	52.0	58.0
B-325	Power Block	892084.9	1902905.1	420.3	85.0	NE	NE	0.0	9.0	49.5	55.0	58.5
B-325UDP [2]	Power Block	892088.1	1902912.0	420.0	48.5	NE	NE	NE	NE	NE	NE	NE
B-326	Power Block	891942.1	1903185.1	412.7	115.0	NE	NE	0.0	21.5	NE	55.0	64.5
B-327	Adjacent to Power Block	891669.1	1903076.7	410.8	59.3	NE	NE	0.0	11.7	48.5	49.3	NE
B-328	Adjacent to Power Block	891465.0	1903044.6	424.6	85.0	NE	NE	0.0	3.0	NE	75.5	75.8
B-329	Adjacent to Power Block	891561.8	1902808.3	410.0	85.0	NE	NE	0.0	10.5	57.0	60.0	73.2
B-330	Adjacent to Power Block	891818.9	1902689.4	401.6	86.0	NE	NE	0.0	NE	48.5	48.8	55.0
B-331	Adjacent to Power Block	891714.2	1902465.4	352.8	116.3	NE	NE	0.0	10.5	NE	25.7	36.7
B-332	Adjacent to Power Block	891931.5	1902530.0	398.4	58.8	NE	0	16.5	21.5	43.5	43.8	53.8

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Top of Fill (ft, bgs)	Top of Alluvial Soil (ft, bgs)	Top of Residual Soil (ft, bgs) [1]	Top of Saprolite (ft, bgs) [1]	Top of PWR (ft, bgs) [1]	Top of Rock (ft, bgs) [4]	Top of Sound Rock (ft, bgs) [5]
B-333	Adjacent to Power Block	891946.5	1902319.6	394.4	86.0	NE	NE	0.0	11.0	22.0	26.1	48.0
B-334	Adjacent to Power Block	892235.2	1902463.7	418.7	55.5	NE	NE	0.0	8.5	32.0	34.3	35.5
B-335	Adjacent to Power Block	892354.8	1902604.2	426.3	85.0	NE	NE	0.0	3.5	38.5	40.0	43.5
B-336	Adjacent to Power Block	892359.6	1903068.4	424.3	115.0	NE	NE	0.0	6.5	37.0	37.0	57.5
B-401	Cooling Tower	891028.4	1903589.1	404.0	120.0	0	NE	2.0	8.0	61.5	64.0	69.0
B-402	Cooling Tower	891102.4	1903999.8	403.9	61.5	NE	NE	0.0	8.5	NE	47.7	51.0
B-403	Cooling Tower	890640.6	1903819.7	400.7	82.0	NE	NE	0.0	6.0	43.5	56.0	72.0
B-404	Cooling Tower	890206.7	1904139.7	410.9	112.6	NE	NE	0.0	13.5	67.5	112.6	NE
B-405	Cooling Tower	890180.1	1903635.0	392.0	52.6	NE	NE	0.0	5.5	38.5	47.2	NE
B-406	Cooling Tower	890109.4	1903182.2	384.7	64.7	NE	NE	0.0	13.5	42.5	53.5	53.5
B-421	Cooling Tower	891447.2	1902586.2	396.0	78.0	NE	NE	0.0	8.5	63.5	NE	NE
B-421A	Cooling Tower	891444.9	1902585.1	396.2	95.0	NE	NE	NE	NE	NE	78.9	86.0
B-422	Cooling Tower	891422.1	1902840.4	411.8	83.5	NE	NE	0.0	3.5	63.5	71.0	72.0
B-423	Cooling Tower	892033.8	1903520.8	408.0	77.4	NE	NE	0.0	11.0	NE	67.0	67.0
B-424	Cooling Tower	891283.9	1903783.6	387.3	60.7	NE	NE	0.0	23.5	NE	48.9	48.9
B-501	Makeup Water Structure	897815.3	1903693.7	430.0	80.0	0	NE	26.5	42.0	62.5	NE	NE
B-501A [3]	Makeup Water Structure	897814.0	1903688.9	430.0	10.0	NE	NE	NE	NE	NE	NE	NE
B-502	Makeup Water Structure	897841.4	1903750.9	426.8	80.0	0	NE	42.0	52.0	78.5	NE	NE
B-601	Switchyard	892885.4	1902148.3	418.8	85.0	NE	NE	0.0	23.5	48.5	55.2	63.5
B-602	Switchyard	892808.5	1902336.0	438.4	115.8	NE	NE	0.0	28.5	61.0	63.9	64.0
B-603	Switchyard	892736.6	1902523.0	429.3	55.3	NE	NE	0.0	11.5	NE	48.2	48.0
B-604	Switchyard	892508.3	1902001.9	414.6	86.0	0	NE	3.0	23.5	68.5	69.6	69.6
B-605	Switchyard	892437.8	1902187.0	432.2	55.0	NE	NE	0.0	11.0	NE	NE	NE
B-606	Switchyard	892343.2	1902368.3	424.2	85.0	NE	NE	0.0	18.5	47.0	50.1	50.0
B-607	Switchyard	892137.3	1901852.6	432.0	55.0	NE	NE	0.0	13.5	NE	NE	NE
B-608	Switchyard	892054.3	1902009.8	411.8	46.0	NE	NE	0.0	6.0	43.5	46.0	NE
B-608A [2]	Switchyard	892053.8	1902007.6	412.1	85.8	NE	NE	NE	NE	NE	31.0	51.0
B-609	Switchyard	891984.6	1902227.2	406.1	53.5	NE	NE	0.0	NE	NE	53.5	NE
B-610	Relocated Access Road	893456.0	1904107.8	422.5	40.0	NE	NE	0.0	13.5	NE	NE	NE
B-611	Relocated Access Road	892895.3	1904453.2	405.4	40.0	NE	NE	0.0	1.5	NE	NE	NE
B-612	Relocated Access Road	892396.1	1904222.2	405.0	62.0	NE	NE	0.0	13.5	58.5	NE	NE
B-613	Relocated Access Road	892503.1	1903763.1	412.8	40.0	NE	NE	0.0	13.5	NE	NE	NE
B-614	Relocated Access Road	891686.1	1903545.0	375.0	34.8	NE	NE	0.0	18.5	33.5	34.8	NE
B-615	Relocated Access Road	890997.3	1902873.2	387.9	40.0	NE	NE	NE	0.0	38.5	NE	NE
B-616	Relocated Access Road	890514.7	1902642.5	400.3	40.0	NE	NE	0.0	11.5	NE	NE	NE
B-617	Existing Access Road	889886.3	1902373.7	450.1	105.0	NE	NE	0.0	34.0	98.5	105.0	NE
B-618	South of Switchyard	890962.5	1901499.0	308.2	32.6	NE	NE	0.0	18.5	NE	32.6	NE
B-619	West of Southern Nuclear Island	892586.7	1901845.3	405.1	66.0	NE	NE	0.0	38.5	64.0	66.0	NE
B-620	North of Northern Nuclear Island	893600.9	1903011.1	381.7	100.0	NE	NE	0.0	1.5	66.5	NE	NE
B-621	North of Northern Nuclear Island	893742.3	1903670.2	421.5	101.0	NE	NE	0.0	6.5	51.5	58.5	76.0
B-622	North of Northern Nuclear Island	894292.4	1904134.3	437.7	45.0	NE	NE	0.0	28.5	34.5	45.0	NE
B-623	Northeast of Nuclear Island	893814.0	1904949.3	439.6	73.9	NE	NE	0.0	28.5	68.5	73.9	NE
B-624	East of Nuclear Island	891608.9	1904614.0	359.0	31.6	NE	NE	0.0	1.5	11.0	31.6	NE
B-625	East of Cooling Tower Area	889889.7	1904938.0	404.2	110.0	NE	NE	0.0	33.5	108.5	110.0	NE

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing (7)	Easting (7)	Elevation (ft) (7)	Total Depth (ft, bgs)	Top of Fill (ft, bgs)	Top of Alluvial Soil (ft, bgs)	Top of Residual Soil (ft, bgs) (1)	Top of Saprolite (ft, bgs) (1)	Top of PWR (ft, bgs) (1)	Top of Rock (ft, bgs) (4)	Top of Sound Rock (ft, bgs) (5)
B-626	Existing Access Road	893200.4	1904143.7	417.2	103.6	NE	NE	0.0	10.5	97.5	103.6	NE
B-627	South of Nuclear Island	891226.4	1902128.7	326.3	101.5	0	1.5	NE	16.5	46.0	57.5	61.5
C-201	Power Block	892773.0	1903149.7	423.4	33.8							
C-202(S)	Power Block/Seismic Cone	892888.5	1903062.6	422.5	49.4							
C-203	Power Block	892915.3	1902940.3	422.8	39.5							
C-204	Power Block	892848.9	1903329.6	428.3	50.7							
C-205	Power Block	892713.8	1903499.0	423.1	37.9							
C-206	Outside Power Block	893044.5	1902877.5	420.5	76.1							
C-207(S)	Outside Power Block/Seismic Cone	892903.1	1903451.5	413.0	50.5							
C-208	Outside Power Block	892800.9	1902817.8	423.4	30.0							
C-209(S)	Outside Power Block/Seismic Cone	892471.8	1902958.6	427.0	36.4							
C-210	Outside Power Block	893241.2	1903128.5	367.7	20.1							
C-301	Power Block	891941.9	1902811.3	421.0	54.8							
C-302(S)	Power Block/Seismic Cone	892052.1	1902726.6	421.3	47.2							
C-303	Power Block	892040.7	1902622.5	415.9	42.7							
C-304	Power Block	892013.7	1902992.9	418.1	51.3							
C-305	Power Block	891841.4	1903149.5	413.0	47.0							
C-306	Outside Power Block	892210.3	1902541.3	417.4	29.7							
C-307(S)	Outside Power Block/Seismic Cone	892076.1	1903116.6	418.7	52.0							
C-308	Outside Power Block	891967.1	1902484.2	398.9	37.6							
C-309(S)	Outside Power Block/Seismic Cone	891638.6	1902622.3	397.2	47.6							
C-310	Outside Power Block	892406.1	1902791.8	427.6	31.8							
C-401	Cooling Tower	890975.6	1904482.2	407.9	66.0							
C-402(S)	Cooling Tower/Seismic Cone	890576.8	1903321.4	399.7	58.0							
C-403	Cooling Tower	889805.7	1903955.5	401.0	57.0							
C-407	Cooling Tower	891688.6	1903553.1	374.0	24.0							
C-409	Cooling Tower	891306.3	1903124.9	390.5	36.0							
C-501	Makeup Water Structure	897785.5	1903807.9	427.9	64.0							
C-601	Switchyard	892737.0	1902205.3	433.6	60.0							
C-602	Switchyard	892669.2	1902376.0	433.5	59.0							
C-603	Switchyard	892262.8	1902038.0	422.2	67.0							
C-604	Switchyard	892193.1	1902215.5	424.2	60.0							
C-605	Relocated Access Road	893092.5	1904069.5	415.3	40.0							
C-606	Relocated Access Road	893211.6	1904476.0	412.0	40.0							
C-607	Relocated Access Road	892575.2	1904318.2	407.2	40.0							
C-608	Relocated Access Road	892406.2	1904230.0	405.8	40.0							
C-609	Relocated Access Road	891462.6	1903410.2	397.2	40.0							
C-610	Relocated Access Road	890608.9	1902714.0	393.4	40.0							
TP-201	Nuclear Island Down-hole Geophysical	892745.5	1903290.3	423.6	6.0	0.0	NE	1.0	NE	NE	NE	NE
TP-201	Nuclear Island Down-hole Geophysical	892753.7	1903291.9	423.4	6.0	0.0	NE	1.0	NE	NE	NE	NE
TP-201	Nuclear Island Down-hole Geophysical	892752.2	1903296.1	423.4	6.0	0.0	NE	1.0	NE	NE	NE	NE
TP-201	Nuclear Island Down-hole Geophysical	892745.3	1903296.4	423.7	6.0	0.0	NE	1.0	NE	NE	NE	NE
TP-227	Adjacent to Power Block	892489.8	1903411.7	422.6	5.0	NE	NE	0.0	3.0	NE	NE	NE
TP-227	Adjacent to Power Block	892487.3	1903418.9	422.4	5.0	NE	NE	0.0	3.0	NE	NE	NE

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Top of Fill (ft, bgs)	Top of Alluvial Soil (ft, bgs)	Top of Residual Soil (ft, bgs) [1]	Top of Saprolite (ft, bgs) [1]	Top of PWR (ft, bgs) [1]	Top of Rock (ft, bgs) [4]	Top of Sound Rock (ft, bgs) [5]
TP-227	Adjacent to Power Block	892484.3	1903417.3	422.4	5.0	NE	NE	0.0	3.0	NE	NE	NE
TP-227	Adjacent to Power Block	892487.3	1903410.2	422.7	5.0	NE	NE	0.0	3.0	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891900.2	1902968.9	415.6	3.0	NE	NE	0.0	NE	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891893.0	1902972.7	415.4	3.0	NE	NE	0.0	NE	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891890.0	1902969.3	415.4	3.0	NE	NE	0.0	NE	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891898.0	1902964.7	415.6	3.0	NE	NE	0.0	NE	NE	NE	NE
TP-405	Cooling Tower	890185.9	1903648.7	392.4	4.0	NE	NE	NE	0.0	NE	NE	NE
TP-405	Cooling Tower	890193.9	1903649.0	392.5	4.0	NE	NE	NE	0.0	NE	NE	NE
TP-405	Cooling Tower	890191.8	1903640.0	392.2	4.0	NE	NE	NE	0.0	NE	NE	NE
TP-405	Cooling Tower	890185.0	1903639.9	392.3	4.0	NE	NE	NE	0.0	NE	NE	NE
OW-205a [6]	Nuclear Island	892829.3	1903189.8	425.9	110.0							
OW-205b	Nuclear Island	892842.4	1903192.5	425.0	60.0							
OW-212	Adjacent to Power Block	893105.1	1903036.8	399.3	68.0							
OW-213	Adjacent to Power Block	892975.6	1903457.3	404.5	55.3							
OW-227	Adjacent to Power Block	892494.0	1903408.0	425.1	84.3							
OW-233	Adjacent to Power Block	892786.5	1902693.4	428.3	120.0							
OW-305a	Nuclear Island	892008.7	1902841.2	427.8	141.0							
OW-305b	Nuclear Island	891996.7	1902857.5	426.3	66.5							
OW-312	Adjacent to Power Block	892256.5	1902709.6	427.1	36.5							
OW-313	Adjacent to Power Block	892167.6	1903132.5	423.8	59.0							
OW-327	Adjacent to Power Block	891669.2	1903084.1	413.4	66.0							
OW-333	Adjacent to Power Block	891954.4	1902319.6	397.1	71.0							
OW-401a	Cooling Tower	891017.8	1903595.5	406.3	92.5							
OW-401b	Cooling Tower	891013.1	1903585.0	406.8	66.0							
OW-405	Cooling Tower	890180.4	1903650.2	395.4	58.5							
OW-501	Makeup Water Structure	897817.4	1903702.3	431.9	32.0							
OW-612	Relocated Access Road	892415.5	1904227.3	409.4	62.0							
OW-614	Relocated Access Road	891671.1	1903536.1	379.1	33.0							
OW-617	Existing Access Road	889886.3	1902373.7	450.1	108.0							
OW-618	South of Switchyard	890955.6	1901480.1	310.5	32.5							
OW-619	West of Southern Nuclear Island	892594.0	1901843.9	407.7	104.0							
OW-620	North of Northern Nuclear Island	893593.8	1903017.2	385.0	91.0							
OW-621a	North of Northern Nuclear Island	893732.7	1903676.2	423.5	97.0							
OW-621b	North of Northern Nuclear Island	893742.6	1903677.8	423.6	71.0							
OW-622	North of Northern Nuclear Island	894292.2	1904118.1	440.7	62.0							
OW-623	Northeast of Nuclear Island	893819.9	1904946.1	441.8	90.0							
OW-624	East of Nuclear Island	891595.7	1904623.8	361.6	62.0							
OW-625	East of Cooling Tower Area	889895.0	1904957.3	405.9	108.0							
OW-626	Existing Access Road	893202.4	1904129.9	418.8	85.0							
OW-627a	South of Nuclear Island	891239.9	1902130.4	330.3	86.0							
OW-627b	South of Nuclear Island	891231.6	1902129.7	329.5	56.0							
R-1/end north	Electrical Resistivity Test/Switchyard	892725.8	1902531.4	429.2	NA							
R-1/end south	Electrical Resistivity Test/Switchyard	892081.0	1902042.5	408.4	NA							
R-1/R-2 center	Electrical Resistivity Test/Switchyard	892448.2	1902299.7	429.5	NA							

TABLE 2A
TEST LOCATION SUMMARY (DEPTH BELOW GROUND SURFACE)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing (7)	Easting (7)	Elevation (ft) (7)	Total Depth (ft, bgs)	Top of Fill (ft, bgs)	Top of Alluvial Soil (ft, bgs)	Top of Residual Soil (ft, bgs) (1)	Top of Saprolite (ft, bgs) (1)	Top of PWR (ft, bgs) (1)	Top of Rock (ft, bgs) (4)	Top of Sound Rock (ft, bgs) (5)
R-2/end north	Electrical Resistivity Test/Switchyard	892803.5	1902028.0	416.7	NA							
R-2/end south	Electrical Resistivity Test/Switchyard	892101.2	1902584.0	415.9	NA							
R-3/end east	Electrical Resistivity Test/U2 Transformers	892369.5	1902956.3	425.5	NA							
R-3/end west	Electrical Resistivity Test/U2 Transformers	892209.0	1902090.7	426.4	NA							
R-4/end north	Electrical Resistivity Test/U2 Transformers	892619.8	1902297.1	436.6	NA							
R-4/end south	Electrical Resistivity Test/U2 Transformers	891993.0	1902781.1	421.9	NA							
R-3/R-4 center	Electrical Resistivity Test/U2 Transformers	892273.6	1902534.8	422.6	NA							
R-5/center	Electrical Resistivity Test/U1Transformers	892658.0	1902916.1	425.5	NA							
R-5/end north	Electrical Resistivity Test/U1Transformers	893101.9	1902871.1	412.8	NA							
R-5/end south	Electrical Resistivity Test/U1Transformers	892212.5	1902960.9	426.2	NA							
R-6 center	Electrical Resistivity Test/U1Transformers	892816.9	1903101.3	423.2	NA							
R-6/east end	Electrical Resistivity Test/U1Transformers	892599.0	1903498.8	423.4	NA							
R-6/end west	Electrical Resistivity Test/U1Transformers	893086.3	1902702.0	407.3	NA							

Notes:

(1) The depths shown are the depths at which Residual Soil, Saprolite, and PWR were first encountered in the boring. In some isolated cases, mulitple layers of either residual soil, saprolite or PWR where encountered in an interlayered manner.

(2) Borings with the suffix "UDP" were drilled as directed by Bechtel to obtain undisturbed samples. Refer to the original boring for geologic layer information.

(3) Borings with the suffix "A" were drilled adjacent to the original location due to either difficulties encountered during drilling in the original location; for SPT Energy Measurements; or for geophysical logging purposes. Refer to original boring for geologic layering information

(4) "Top of Rock" tabulated above is the depth at which diamond coring techniques began to advance the borehole. If no diamond coring was performed, then the depth shown is the depth of soil boring refusal.

(5) "Top of Sound Rock" is defined as generally hard, slightly discolored to fresh (bright mineral surfaces) rock with slight alteration/staining localized along joints and shears in the rock mass. RQD typically exceeds about 70%. May be underlain by zones of RQD < 70% but that are composed of mostly slightly weathered to fresh rock

Special Note: Top of Sound Rock depths are MACTEC's interpretation and are generally based on the definition of Sound Rock described above and in the Data Report. Alternate interpretations of depth to Top of Sound Rock could be made by Bechtel for some of the borings, including but not limited to the following:

B-205: Highly weathered seam 82.5 - 85.0 feet; alternate Top of Sound Rock deeper = 85.0

B-206: Highly weathered seams 76.5-77.2, 80.0-80.5, and 81.6-82.5; alternate Top of Sound Rock deeper = 82.5

B-217: Low RQD (32%) due to moderate weathering and jointing 79.0-84.0, weathered seam 88.8-91.0; alternate Top of Sound Rock deeper = 91.0

B-219: Lower RQDs 66.0-71.0 (57%) and 71.0-76.0 (60%); alternate Top of Sound Rock shallower = 52.0

B-333: Highly weathered seams 52.2-53.5, 59.8-60.5, 63.0-65.4,and 67.8-68.2; alternate Top of Sound Rock = 68.2

(6) Coordinates and Elevations shown for Observation Wells are for the PVC casing. Refer to Attachment A for coordinates and elevations of concrete pad and ground surface adjacent to the pad.

(7) From Attachment A

NE Not Encountered

NA Not Applicable

PWR Partially Weathered Rock

bgs Below ground surface

msl Mean sea level

NA Not Applicable

Matt Cooke 10/27/06
Clay E Sams 10/30/06

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION, ft)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing (7)	Easting (7)	Elevation (ft) (7)	Total Depth (ft, bgs)	Bottom of Hole Elevation (ft)	Top of Fill (ft)	Top of Alluvial Soil (ft)	Top of Residual Soil (ft) (1)	Top of Saprolite (ft) (1)	Top of PWR (ft) (1)	Top of Rock (ft) (4)	Top of Sound Rock (ft) (5)
B-201(DH)	Nuclear Island/Down-hole Geophysical	892740.9	1903285.1	423.7	350.0	73.7	NE	NE	423.7	405.2	384.9	373.4	361.5
B-201UDP (2)	Nuclear Island/Down-hole Geophysical	892737.8	1903293.2	423.8	47.0	376.8	NE	NE	NE	NE	NE	NE	NE
B-202	Nuclear Island	892792.7	1903302.6	423.9	175.5	248.4	NE	NE	423.9	405.4	NE	377.9	359.9
B-203	Nuclear Island	892696.1	1903268.9	423.5	151.5	272.0	423.5	NE	422.5	401.5	NE	372.0	372.0
B-204	Nuclear Island	892754.6	1903400.2	424.5	150.0	274.5	NE	NE	424.5	401.0	377.5	377.5	345.5
B-205	Nuclear Island	892840.4	1903199.2	423.1	175.0	248.1	NE	NE	423.1	381.6	369.1	369.1	358.1
B-206(DH)	Nuclear Island/Down-hole Geophysical	892683.5	1903416.2	424.3	214.8	209.5	NE	NE	424.3	405.3	NE	352.3	348.3
B-207(DH)	Power Block/Down-hole Geophysical	892824.8	1902949.7	423.9	175.0	248.9	423.9	NE	423.4	415.4	385.4	380.9	373.9
B-208	Power Block	892989.8	1902925.3	422.0	10.5	411.5	NE	NE	422.0	NE	NE	NE	NE
B-208A (3)	Power Block	892990.7	1902928.9	421.7	115.0	306.7	NE	NE	421.7	399.7	388.2	387.2	330.2
B-209	Power Block	893015.1	1903210.9	407.9	150.0	257.9	NE	NE	407.9	384.4	354.4	353.9	324.9
B-210	Power Block	892842.5	1903457.4	416.5	115.0	301.5	NE	NE	416.5	403.0	356.8	350.5	340.5
B-211(DH)	Adjacent to Power Block/Down-hole Geophysical	892570.0	1903213.8	422.2	176.0	246.2	NE	NE	422.2	416.7	NE	380.2	377.2
B-211A (2)	Adjacent to Power Block/Down-hole Geophysical	892568.4	1903205.5	421.8	39.0	382.8	NE	NE	NE	NE	NE	NE	NE
B-212	Adjacent to Power Block	893100.7	1903027.4	397.2	68.5	328.7	NE	NE	397.2	378.7	346.7	328.7	NE
B-212A (3)	Adjacent to Power Block	893099.4	1903031.8	397.8	115.4	282.5	NE	NE	NE	NE	342.8	341.8	314.6
B-213	Adjacent to Power Block	892986.5	1903458.5	401.5	150.0	251.5	NE	NE	401.5	388.0	343.5	342.3	331.7
B-214	Power Block	892735.7	1903158.7	423.4	115.0	308.4	NE	NE	423.4	415.4	389.1	384.9	369.1
B-215	Power Block	892789.9	1903053.3	423.4	175.0	248.4	NE	NE	423.4	419.9	374.9	374.9	369.6
B-216	Power Block	892871.6	1902884.1	423.1	85.0	338.1	NE	NE	423.1	416.6	396.1	375.1	368.4
B-216UDP (2)	Power Block	892863.6	1902876.4	423.1	40.5	382.6	NE	NE	NE	NE	NE	NE	NE
B-217	Power Block	892933.8	1902898.3	423.3	175.0	248.3	NE	NE	423.3	417.3	373.5	372.3	349.3
B-218	Power Block	892898.9	1902973.4	423.0	115.0	308.0	NE	NE	423.0	409.5	382.0	364.5	343.0
B-218UDP (2)	Power Block	892909.2	1902978.1	422.8	50.5	372.3	NE	NE	NE	NE	NE	NE	NE
B-219	Power Block	892859.6	1903080.5	423.0	86.0	337.0	423.0	NE	422.5	409.5	375.5	371.0	347.0
B-220	Power Block	892976.3	1903010.5	421.5	105.0	316.5	421.5	NE	421.0	399.5	359.5	347.7	336.5
B-221	Power Block	892928.8	1903108.9	421.7	69.5	352.2	421.7	NE	420.2	410.7	363.7	352.2	NE
B-221A (3)	Power Block	892934.9	1903109.9	421.6	91.2	330.4	NE	NE	NE	NE	NE	361.6	335.4
B-222	Power Block	892879.6	1903150.9	423.2	115.0	308.2	NE	NE	423.2	399.7	364.7	364.7	363.7
B-223	Power Block	892961.9	1903324.3	410.5	85.3	325.2	NE	NE	410.5	393.7	372.0	369.8	343.8
B-224	Power Block	892895.9	1903344.4	419.2	116.2	303.0	NE	NE	419.2	400.7	365.7	349.7	349.5
B-224UDP (2)	Power Block	892889.9	1903354.9	419.0	55.5	363.5	NE	NE	NE	NE	NE	NE	NE
B-225	Power Block	892926.5	1903216.4	425.2	85.0	340.2	NE	NE	425.2	409.2	391.7	391.2	359.6
B-226	Power Block	892723.8	1903532.7	422.3	112.5	309.8	NE	NE	422.3	411.3	NE	351.3	342.8
B-227	Adjacent to Power Block	892494.0	1903408.0	425.1	54.5	370.6	NE	NE	425.1	421.6	373.6	NE	NE
B-228	Adjacent to Power Block	892304.0	1903395.0	419.2	85.1	334.1	NE	NE	418.9	406.2	NE	363.7	347.2
B-229	Adjacent to Power Block	892394.7	1903147.6	423.2	85.7	337.5	NE	NE	423.2	410.2	368.2	368.0	364.4
B-230	Adjacent to Power Block	892658.4	1903033.9	424.5	85.3	339.2	NE	NE	424.5	419.0	388.0	385.2	382.5
B-231	Adjacent to Power Block	892519.0	1902844.2	428.4	115.0	313.4	NE	NE	428.4	419.9	377.4	374.0	374.0
B-232	Adjacent to Power Block	892767.1	1902865.1	424.0	55.4	368.6	NE	NE	424.0	405.5	NE	388.6	383.5
B-233	Adjacent to Power Block	892784.5	1902686.9	426.1	75.0	351.1	NE	NE	426.1	417.6	NE	388.7	379.6
B-234	Adjacent to Power Block	893072.0	1902801.4	421.1	55.0	366.1	NE	NE	421.1	399.6	NE	NE	NE
B-235	Adjacent to Power Block	893192.6	1902941.0	379.4	85.5	293.9	NE	NE	379.4	355.9	330.9	316.9	303.4
B-236	Adjacent to Power Block	893133.1	1903296.0	374.7	27.3	347.4	NE	NE	374.7	366.2	NE	347.4	NE
B-236A (3)	Adjacent to Power Block	893140.6	1903298.7	374.4	115.1	259.3	NE	NE	NE	NE	342.4	335.9	296.4
B-301(DH)	Nuclear Island/Down-hole Geophysical	891906.9	1902949.2	417.1	129.8	287.3	NE	NE	417.1	404.6	NE	359.1	357.1

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION, ft)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Bottom of Hole Elevation (ft)	Top of Fill (ft)	Top of Alluvial Soil (ft)	Top of Residual Soil (ft) [1]	Top of Saprolite (ft) [1]	Top of PWR (ft) [1]	Top of Rock (ft) [4]	Top of Sound Rock (ft) [5]
B-301A [3]	Nuclear Island/Down-hole Geophysical	891895.0	1902945.0	416.2	350.9	65.3	NE	NE	NE	NE	NE	361.7	357.7
B-302	Nuclear Island	891954.5	1902970.9	417.2	175.8	241.5	NE	NE	417.2	407.2	NE	363.7	357.2
B-303	Nuclear Island	891861.4	1902923.5	415.1	150.0	265.1	NE	NE	415.1	393.6	NE	363.6	359.1
B-304	Nuclear Island	891921.7	1903063.2	415.3	150.0	265.3	NE	NE	415.3	402.3	NE	362.6	359.8
B-305	Nuclear Island	892004.9	1902859.1	423.9	175.0	248.9	NE	NE	423.9	391.9	372.4	366.4	363.3
B-305UDP [2]	Nuclear Island	891997.6	1902844.2	424.0	55.5	368.5	NE	NE	NE	NE	NE	NE	NE
B-306(DH)	Nuclear Island/Down-hole Geophysical	891854.8	1903077.2	413.4	215.0	198.4	NE	NE	413.4	400.4	369.9	368.9	362.6
B-307(DH)	Power Block/Down-hole Geophysical	891989.1	1902613.3	402.6	176.0	226.6	NE	NE	402.6	394.6	364.1	362.6	362.6
B-307A [3]	Power Block/Down-hole Geophysical	891982.7	1902610.6	402.4	40.0	362.4	NE	NE	NE	NE	NE	NE	NE
B-308	Power Block	892154.5	1902587.6	418.3	115.0	303.3	NE	NE	418.3	412.3	NE	378.8	371.9
B-309	Power Block	892160.7	1902842.7	422.6	150.0	272.6	NE	NE	422.6	414.1	NE	376.1	365.1
B-310	Power Block	892010.5	1903114.7	417.0	105.8	311.2	NE	NE	417.0	413.5	NE	363.7	362.0
B-311(DH)	Adjacent to Power Block/Down-hole Geophysical	891747.1	1902671.4	419.5	175.0	244.5	NE	NE	419.5	381.0	367.5	363.0	347.5
B-312	Adjacent to Power Block	892269.4	1902694.0	425.2	115.0	310.2	NE	NE	425.2	408.7	393.7	390.2	383.5
B-313	Adjacent to Power Block	892151.4	1903120.7	420.5	150.0	270.5	NE	NE	420.5	397.0	374.0	359.5	359.5
B-313A [3]	Adjacent to Power Block	892138.9	1903121.8	420.1	35.0	385.1	NE	NE	NE	NE	NE	NE	NE
B-314	Power Block	891905.1	1902819.6	417.8	115.0	302.8	NE	NE	NE	NE	NE	358.8	357.8
B-314A [3]	Power Block	891905.0	1902814.2	417.9	59.0	358.9	417.9	NE	408.4	396.9	NE	NE	NE
B-315	Power Block	891945.4	1902714.1	413.4	175.0	238.4	413.4	404.4	NE	394.9	370.4	370.4	353.4
B-316	Power Block	892005.9	1902534.6	401.2	85.0	316.2	401.2	NE	392.7	377.7	NE	364.2	353.6
B-317	Power Block	892095.2	1902571.1	415.5	175.3	240.2	NE	NE	415.5	406.5	390.5	388.5	366.3
B-317A [3]	Power Block	892095.9	1902567.2	415.3	27.0	388.3	NE	NE	NE	NE	NE	NE	NE
B-318	Power Block	892066.6	1902642.7	420.2	115.2	305.0	NE	NE	420.2	409.7	371.7	371.2	364.5
B-319	Power Block	892046.7	1902720.5	420.5	85.5	335.0	NE	NE	420.5	407.0	372.0	372.0	360.7
B-320	Power Block	892140.4	1902674.8	422.5	115.0	307.5	NE	NE	422.5	414.5	NE	372.0	372.0
B-321	Power Block	892101.3	1902773.3	422.8	85.1	337.7	NE	NE	422.8	417.3	368.0	367.8	367.3
B-322	Power Block	892048.6	1902812.5	425.3	115.5	309.8	NE	NE	425.3	411.8	376.8	376.8	359.9
B-323	Power Block	892134.3	1902992.0	420.1	84.9	335.2	NE	NE	420.1	411.6	375.1	373.4	372.1
B-324	Power Block	892054.4	1903009.4	419.4	115.2	304.2	NE	NE	NE	419.4	NE	367.4	361.4
B-325	Power Block	892084.9	1902905.1	420.3	85.0	335.3	NE	NE	420.3	411.3	370.8	365.3	361.8
B-325UDP [2]	Power Block	892088.1	1902912.0	420.0	48.5	371.5	NE	NE	NE	NE	NE	NE	NE
B-326	Power Block	891942.1	1903185.1	412.7	115.0	297.7	NE	NE	412.7	391.2	NE	357.7	348.2
B-327	Adjacent to Power Block	891669.1	1903076.7	410.8	59.3	351.5	NE	NE	410.8	399.1	362.3	361.5	NE
B-328	Adjacent to Power Block	891465.0	1903044.6	424.6	85.0	339.6	NE	NE	424.6	421.6	NE	349.1	348.8
B-329	Adjacent to Power Block	891561.8	1902808.3	410.0	85.0	325.0	NE	NE	410.0	399.5	353.0	350.0	336.8
B-330	Adjacent to Power Block	891818.9	1902689.4	401.6	86.0	315.6	NE	NE	401.6	NE	353.1	352.8	346.6
B-331	Adjacent to Power Block	891714.2	1902465.4	352.8	116.3	236.5	NE	NE	352.8	342.3	NE	327.1	316.1
B-332	Adjacent to Power Block	891931.5	1902530.0	398.4	58.8	339.6	NE	398.4	381.9	376.9	354.9	354.6	344.6
B-333	Adjacent to Power Block	891946.5	1902319.8	394.4	86.0	308.4	NE	NE	394.4	383.4	372.4	368.3	346.4
B-334	Adjacent to Power Block	892235.2	1902463.7	418.7	55.5	363.2	NE	NE	418.7	410.2	386.7	384.4	383.2
B-335	Adjacent to Power Block	892354.8	1902604.2	426.3	85.0	341.3	NE	NE	426.3	422.8	387.8	386.3	382.8
B-336	Adjacent to Power Block	892359.6	1903068.4	424.3	115.0	309.3	NE	NE	424.3	417.8	387.3	387.3	366.8
B-401	Cooling Tower	891028.4	1903589.1	404.0	120.0	284.0	404.0	NE	402.0	396.0	342.5	340.0	335.0
B-402	Cooling Tower	891102.4	1903999.8	403.9	61.5	342.4	NE	NE	403.9	395.4	NE	356.2	352.9
B-403	Cooling Tower	890640.6	1903819.7	400.7	82.0	318.7	NE	NE	400.7	394.7	357.2	344.7	328.7
B-404	Cooling Tower	890206.7	1904139.7	410.9	112.6	298.3	NE	NE	410.9	397.4	343.4	298.3	NE
B-405	Cooling Tower	890180.1	1903635.0	392.0	52.6	339.4	NE	NE	392.0	386.5	353.5	344.8	NE

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION, ft)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Bottom of Hole Elevation (ft)	Top of Fill (ft)	Top of Alluvial Soil (ft)	Top of Residual Soil (ft) [1]	Top of Saprolite (ft) [1]	Top of PWR (ft) [1]	Top of Rock (ft) [4]	Top of Sound Rock (ft) [5]
B-406	Cooling Tower	890109.4	1903182.2	384.7	64.7	320.0	NE	NE	384.7	371.2	342.2	331.2	331.2
B-421	Cooling Tower	891447.2	1902586.2	396.0	78.0	318.0	NE	NE	396.0	387.5	332.5	NE	NE
B-421A	Cooling Tower	891444.9	1902585.1	396.2	95.0	301.2	NE	NE	NE	NE	NE	317.3	310.2
B-422	Cooling Tower	891422.1	1902840.4	411.8	83.5	328.3	NE	NE	411.8	408.3	348.3	340.8	339.8
B-423	Cooling Tower	892033.8	1903520.8	408.0	77.4	330.6	NE	NE	408.0	397.0	NE	341.0	341.0
B-424	Cooling Tower	891283.9	1903783.6	387.3	60.7	326.6	NE	NE	387.3	363.8	NE	338.4	338.4
B-501	Makeup Water Structure	897815.3	1903693.7	430.0	80.0	350.0	430.0	NE	403.5	388.0	367.5	NE	NE
B-501A [3]	Makeup Water Structure	897814.0	1903688.9	430.0	10.0	420.0	NE	NE	NE	NE	NE	NE	NE
B-502	Makeup Water Structure	897841.4	1903750.9	428.8	80.0	348.8	428.8	NE	386.8	376.8	350.3	NE	NE
B-601	Switchyard	892885.4	1902148.3	418.8	85.0	333.8	NE	NE	418.8	395.3	370.3	363.6	355.3
B-602	Switchyard	892808.5	1902336.0	438.4	115.8	322.6	NE	NE	438.4	409.9	377.4	374.5	374.4
B-603	Switchyard	892736.6	1902523.0	429.3	55.3	374.0	NE	NE	429.3	417.8	NE	381.1	381.3
B-604	Switchyard	892508.3	1902001.9	414.6	86.0	328.6	414.6	NE	411.6	391.1	346.1	345.0	345.0
B-605	Switchyard	892437.8	1902187.0	432.2	55.0	377.2	NE	NE	432.2	421.2	NE	NE	NE
B-606	Switchyard	892343.2	1902368.3	424.2	85.0	339.2	NE	NE	424.2	405.7	377.2	374.1	374.2
B-607	Switchyard	892137.3	1901852.6	432.0	55.0	377.0	NE	NE	432.0	418.5	NE	NE	NE
B-608	Switchyard	892054.3	1902009.8	411.8	46.0	365.8	NE	NE	411.8	405.8	368.3	365.8	NE
B-608A [3]	Switchyard	892053.8	1902007.6	412.1	85.8	326.3	NE	NE	NE	NE	NE	381.1	361.1
B-609	Switchyard	891984.6	1902227.2	406.1	53.5	352.6	NE	NE	406.1	NE	NE	352.6	NE
B-610	Relocated Access Road	893456.0	1904107.8	422.5	40.0	382.5	NE	NE	422.5	409.0	NE	NE	NE
B-611	Relocated Access Road	892895.3	1904453.2	405.4	40.0	365.4	NE	NE	405.4	403.9	NE	NE	NE
B-612	Relocated Access Road	892396.1	1904222.2	405.0	62.0	343.0	NE	NE	405.0	391.5	346.5	NE	NE
B-613	Relocated Access Road	892503.1	1903763.1	412.8	40.0	372.8	NE	NE	412.8	399.3	NE	NE	NE
B-614	Relocated Access Road	891686.1	1903545.0	375.0	34.8	340.2	NE	NE	375.0	356.5	341.5	340.2	NE
B-615	Relocated Access Road	890997.3	1902873.2	387.9	40.0	347.9	NE	NE	NE	387.9	349.4	NE	NE
B-616	Relocated Access Road	890514.7	1902642.5	400.3	40.0	360.3	NE	NE	400.3	388.8	NE	NE	NE
B-617	Existing Access Road	889886.3	1902373.7	450.1	105.0	345.1	NE	NE	450.1	416.1	351.6	345.1	NE
B-618	South of Switchyard	890962.5	1901499.0	308.2	32.6	275.6	NE	NE	308.2	289.7	NE	275.6	NE
B-619	West of Southern Nuclear Island	892586.7	1901845.3	405.1	66.0	339.1	NE	NE	405.1	366.6	341.1	339.1	NE
B-620	North of Northern Nuclear Island	893600.9	1903011.1	381.7	100.0	281.7	NE	NE	381.7	380.2	315.2	NE	NE
B-621	North of Northern Nuclear Island	893742.3	1903670.2	421.5	101.0	320.5	NE	NE	421.5	415.0	370.0	363.0	345.5
B-622	North of Northern Nuclear Island	894292.4	1904134.3	437.7	45.0	392.7	NE	NE	437.7	409.2	403.2	392.7	NE
B-623	Northeast of Nuclear Island	893814.0	1904949.3	439.6	73.9	365.7	NE	NE	439.6	411.1	371.1	365.7	NE
B-624	East of Nuclear Island	891608.9	1904614.0	359.0	31.6	327.4	NE	NE	359.0	357.5	348.0	327.4	NE
B-625	East of Cooling Tower Area	889889.7	1904936.0	404.2	110.0	294.2	NE	NE	404.2	370.7	295.7	294.2	NE
B-626	Existing Access Road	893200.4	1904143.7	417.2	103.6	313.6	NE	NE	417.2	406.7	319.7	313.6	NE
B-627	South of Nuclear Island	891226.4	1902128.7	326.3	101.5	224.8	326.3	324.8	NE	309.8	280.3	268.8	264.8
C-201	Power Block	892773.0	1903149.7	423.4	33.8	389.6							
C-202(S)	Power Block/Seismic Cone	892888.5	1903062.6	422.5	49.4	373.1							
C-203	Power Block	892915.3	1902940.3	422.8	39.5	383.3							
C-204	Power Block	892848.9	1903329.6	428.3	50.7	377.6							
C-205	Power Block	892713.8	1903499.0	423.1	37.9	385.2							
C-206	Outside Power Block	893044.5	1902877.5	420.5	76.1	344.4							
C-207(S)	Outside Power Block/Seismic Cone	892903.1	1903451.5	413.0	50.5	362.5							
C-208	Outside Power Block	892800.9	1902817.8	423.4	30.0	393.4							
C-209(S)	Outside Power Block/Seismic Cone	892471.8	1902958.6	427.0	36.4	390.6							
C-210	Outside Power Block	893241.2	1903128.5	367.7	20.1	347.6							

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION, ft)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Bottom of Hole Elevation (ft)	Top of Fill (ft)	Top of Alluvial Soil (ft)	Top of Residual Soil (ft) [1]	Top of Saprolite (ft) [1]	Top of PWR (ft) [1]	Top of Rock (ft) [4]	Top of Sound Rock (ft) [5]
C-301	Power Block	891941.9	1902811.3	421.0	54.8	366.2							
C-302(S)	Power Block/Seismic Cone	892052.1	1902726.6	421.3	47.2	374.1							
C-303	Power Block	892040.7	1902622.5	415.9	42.7	373.2							
C-304	Power Block	892013.7	1902992.9	418.1	51.3	366.8							
C-305	Power Block	891841.4	1903149.5	413.0	47.0	366.0							
C-306	Outside Power Block	892210.3	1902541.3	417.4	29.7	387.7							
C-307(S)	Outside Power Block/Seismic Cone	892076.1	1903116.6	418.7	52.0	366.7							
C-308	Outside Power Block	891967.1	1902484.2	398.9	37.6	361.3							
C-309(S)	Outside Power Block/Seismic Cone	891638.6	1902622.3	397.2	47.6	349.6							
C-310	Outside Power Block	892406.1	1902791.8	427.6	31.8	395.8							
C-401	Cooling Tower	890975.6	1904482.2	407.9	66.0	341.9							
C-402(S)	Cooling Tower/Seismic Cone	890576.8	1903321.4	399.7	58.0	341.7							
C-403	Cooling Tower	889805.7	1903955.5	401.0	57.0	344.0							
C-407	Cooling Tower	891688.6	1903553.1	374.0	24.0	350.0							
C-409	Cooling Tower	891306.3	1903124.9	390.5	36.0	354.5							
C-501	Makeup Water Structure	897785.5	1903807.9	427.9	64.0	363.9							
C-601	Switchyard	892737.0	1902205.3	433.6	60.0	373.6							
C-602	Switchyard	892669.2	1902376.0	433.5	59.0	374.5							
C-603	Switchyard	892262.8	1902038.0	422.2	67.0	355.2							
C-604	Switchyard	892193.1	1902215.5	424.2	60.0	364.2							
C-605	Relocated Access Road	893092.5	1904069.5	415.3	40.0	375.3							
C-606	Relocated Access Road	893211.6	1904476.0	412.0	40.0	372.0							
C-607	Relocated Access Road	892575.2	1904318.2	407.2	40.0	367.2							
C-608	Relocated Access Road	892406.2	1904230.0	405.8	40.0	365.8							
C-609	Relocated Access Road	891462.6	1903410.2	397.2	40.0	357.2							
C-610	Relocated Access Road	890608.9	1902714.0	393.4	40.0	353.4							
TP-201	Nuclear Island Down-hole Geophysical	892745.5	1903290.3	423.6	6.0	417.6	423.6	NE	422.6	NE	NE	NE	NE
TP-201	Nuclear Island Down-hole Geophysical	892753.7	1903291.9	423.4	6.0	417.4	423.4	NE	422.4	NE	NE	NE	NE
TP-201	Nuclear Island Down-hole Geophysical	892752.2	1903296.1	423.4	6.0	417.4	423.4	NE	422.4	NE	NE	NE	NE
TP-201	Nuclear Island Down-hole Geophysical	892745.3	1903296.4	423.7	6.0	417.7	423.7	NE	422.7	NE	NE	NE	NE
TP-227	Adjacent to Power Block	892489.8	1903411.7	422.6	5.0	417.6	NE	NE	422.6	419.6	NE	NE	NE
TP-227	Adjacent to Power Block	892487.3	1903418.9	422.4	5.0	417.4	NE	NE	422.4	419.4	NE	NE	NE
TP-227	Adjacent to Power Block	892484.3	1903417.3	422.4	5.0	417.4	NE	NE	422.4	419.4	NE	NE	NE
TP-227	Adjacent to Power Block	892487.3	1903410.2	422.7	5.0	417.7	NE	NE	422.7	419.7	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891900.2	1902968.9	415.6	3.0	412.6	NE	NE	415.6	NE	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891893.0	1902972.7	415.4	3.0	412.4	NE	NE	415.4	NE	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891890.0	1902969.3	415.4	3.0	412.4	NE	NE	415.4	NE	NE	NE	NE
TP-301	Nuclear Island Down-hole Geophysical	891898.0	1902964.7	415.6	3.0	412.6	NE	NE	415.6	NE	NE	NE	NE
TP-405	Cooling Tower	890185.9	1903648.7	392.4	4.0	388.4	NE	NE	NE	392.4	NE	NE	NE
TP-405	Cooling Tower	890193.9	1903649.0	392.5	4.0	388.5	NE	NE	NE	392.5	NE	NE	NE
TP-405	Cooling Tower	890191.8	1903640.0	392.2	4.0	388.2	NE	NE	NE	392.2	NE	NE	NE
TP-405	Cooling Tower	890185.0	1903639.9	392.3	4.0	388.3	NE	NE	NE	392.3	NE	NE	NE
OW-205a [6]	Nuclear Island	892829.3	1903189.8	425.9	110.0								
OW-205b	Nuclear Island	892842.4	1903192.5	425.0	60.0								
OW-212	Adjacent to Power Block	893105.1	1903036.8	399.3	68.0								

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION, ft)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing [7]	Easting [7]	Elevation (ft) [7]	Total Depth (ft, bgs)	Bottom of Hole Elevation (ft)	Top of Fill (ft)	Top of Alluvial Soil (ft)	Top of Residual Soil (ft) [1]	Top of Saprolite (ft) [1]	Top of PWR (ft) [1]	Top of Rock (ft) [4]	Top of Sound Rock (ft) [5]
OW-213	Adjacent to Power Block	892975.6	1903457.3	404.5	55.3								
OW-227	Adjacent to Power Block	892494.0	1903408.0	425.1	84.3								
OW-233	Adjacent to Power Block	892786.5	1902693.4	428.3	120.0								
OW-305a	Nuclear Island	892008.7	1902841.2	427.8	141.0								
OW-305b	Nuclear Island	891996.7	1902857.5	426.3	66.5								
OW-312	Adjacent to Power Block	892256.5	1902709.6	427.1	36.5								
OW-313	Adjacent to Power Block	892167.6	1903132.5	423.8	59.0								
OW-327	Adjacent to Power Block	891669.2	1903084.1	413.4	66.0								
OW-333	Adjacent to Power Block	891954.4	1902319.6	397.1	71.0								
OW-401a	Cooling Tower	891017.8	1903595.5	406.3	92.5								
OW-401b	Cooling Tower	891013.1	1903585.0	406.8	66.0								
OW-405	Cooling Tower	890180.4	1903650.2	395.4	58.5								
OW-501	Makeup Water Structure	897817.4	1903702.3	431.9	32.0								
OW-612	Relocated Access Road	892415.5	1904227.3	409.4	62.0								
OW-614	Relocated Access Road	891671.1	1903536.1	379.1	33.0								
OW-617	Existing Access Road	889886.3	1902373.7	450.1	108.0								
OW-618	South of Switchyard	890955.6	1901480.1	310.5	32.5								
OW-619	West of Southern Nuclear Island	892594.0	1901843.9	407.7	104.0								
OW-620	North of Northern Nuclear Island	893593.8	1903017.2	385.0	91.0								
OW-621a	North of Northern Nuclear Island	893732.7	1903676.2	423.5	97.0								
OW-621b	North of Northern Nuclear Island	893742.6	1903677.8	423.6	71.0								
OW-622	North of Northern Nuclear Island	894292.2	1904118.1	440.7	62.0								
OW-623	Northeast of Nuclear Island	893819.9	1904946.1	441.8	90.0								
OW-624	East of Nuclear Island	891595.7	1904623.8	361.6	62.0								
OW-625	East of Cooling Tower Area	889895.0	1904957.3	405.9	108.0								
OW-626	Existing Access Road	893202.4	1904129.9	418.8	85.0								
OW-627a	South of Nuclear Island	891239.9	1902130.4	330.3	86.0								
OW-627b	South of Nuclear Island	891231.6	1902129.7	329.5	56.0								
R-1/end north	Electrical Resistivity Test/Switchyard	892725.8	1902531.4	429.2	NA								
R-1/end south	Electrical Resistivity Test/Switchyard	892081.0	1902042.5	408.4	NA								
R-1/R-2 center	Electrical Resistivity Test/Switchyard	892448.2	1902299.7	429.5	NA								
R-2/end north	Electrical Resistivity Test/Switchyard	892803.5	1902028.0	416.7	NA								
R-2/end south	Electrical Resistivity Test/Switchyard	892101.2	1902584.0	415.9	NA								
R-3/end east	Electrical Resistivity Test/U2 Transformers	892369.5	1902956.3	425.5	NA								
R-3/end west	Electrical Resistivity Test/U2 Transformers	892209.0	1902090.7	426.4	NA								
R-4/end north	Electrical Resistivity Test/U2 Transformers	892619.8	1902297.1	436.6	NA								

TABLE 2B
TEST LOCATION SUMMARY (ELEVATION, ft)
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Test Location	Location/Remarks	Northing (7)	Easting (7)	Elevation (ft) (7)	Total Depth (ft, bgs)	Bottom of Hole Elevation (ft)	Top of Fill (ft)	Top of Alluvial Soil (ft)	Top of Residual Soil (ft) (1)	Top of Saprolite (ft) (1)	Top of PWR (ft) (1)	Top of Rock (ft) (4)	Top of Sound Rock (ft) (5)
R-4/end south	Electrical Resistivity Test/U2 Transformers	891993.0	1902781.1	421.9	NA								
R-3/R-4 center	Electrical Resistivity Test/U2 Transformers	892273.6	1902534.8	422.6	NA								
R-5/center	Electrical Resistivity Test/U1Transformers	892658.0	1902916.1	425.5	NA								
R-5/end north	Electrical Resistivity Test/U1Transformers	893101.9	1902871.1	412.8	NA								
R-5/end south	Electrical Resistivity Test/U1Transformers	892212.5	1902960.9	426.2	NA								
R-6 center	Electrical Resistivity Test/U1Transformers	892816.9	1903101.3	423.2	NA								
R-6/east end	Electrical Resistivity Test/U1Transformers	892599.0	1903498.8	423.4	NA								
R-6/end west	Electrical Resistivity Test/U1Transformers	893086.3	1902702.0	407.3	NA								

Notes:

(1) The elevations shown are the elevations at which Residual Soil, Saprolite, and PWR were first encountered in the boring. In some isolated cases, mulitple layers of either residual soil, saprolite or PWR where encountered in an interlayered manner.

(2) Borings with the suffix "UDP" were drilled as directed by Bechtel to obtain undisturbed samples. Refer to the original boring for geologic layer information.

(3) Borings with the suffix "A" were drilled adjacent to the original location due to either difficulties encountered during drilling in the original location; for SPT Energy Measurements; or for geophysical logging purposes. Refer to original boring for geologic layering information

(4) "Top of Rock" tabulated above is the elevation at which diamond coring techniques began to advance the borehole. If no diamond coring was performed, then the elevation shown is the elevation of soil boring refusal.

(5) "Top of Sound Rock" is defined as generally hard, slightly discolored to fresh (bright mineral surfaces) rock with slight alteration/staining localized along joints and shears in the rock mass. RQD typically exceeds about 70%. May be underlain by zones of RQD < 70% but that are composed of mostly slightly weathered to fresh rock

Special Note: Top of Sound Rock depths are MACTEC's interpretation and are generally based on the definition of Sound Rock described above and in the Data Report. Alternate interpretations of depth to Top of Sound Rock could be made by Bechtel for some of the borings, including but not limited to the following:

B-205: Highly weathered seam 82.5 - 85.0 feet; alternate Top of Sound Rock deeper = 85.0

B-206: Highly weathered seams 76.5-77.2, 80.0-80.5, and 81.6-82.5; alternate Top of Sound Rock deeper = 82.5

B-217: Low RQD (32%) due to moderate weathering and jointing 79.0-84.0, weathered seam 88.8-91.0; alternate Top of Sound Rock deeper = 91.0

B-219: Lower RQDs 66.0-71.0 (57%) and 71.0-76.0 (60%); alternate Top of Sound Rock shallower = 52.0

B-333: Highly weathered seams 52.2-53.5, 59.8-60.5, 63.0-65.4,and 67.8-68.2; alternate Top of Sound Rock = 68.2

(6) Coordinates and Elevations shown for Observation Wells are for the PVC casing. Refer to Attachment A for coordinates and elevations of concrete pad and ground surface adjacent to the pad.

(7) From Attachment A

NE Not Encountered

PWR Partially Weathered Rock

bgs Below ground surface

msl Mean sea level

NA Not Applicable

Matt Cooke 10/27/06

Clay E. Seaman 10/30/06

TABLE 2C
ROCK TYPE SUMMARY TABLE
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Boring Number	Location/Remarks	Northing [6]	Easting [6]	Elevation (ft) [6]	Total Depth (ft, bgs)	Top of Rock (ft, bgs) [4]	Rock Type at Top of Rock	Top of Sound Rock (ft, bgs) [5]	Rock Type at Top of Sound Rock
B-201(DH)	Nuclear Island/Down-hole Geophysical	892740.9	1903285.1	423.7	350.0	50.3	Granodiorite	62.2	Granodiorite
B-201UDP [2]	Nuclear Island/Down-hole Geophysical	892737.8	1903293.2	423.8	47.0	NE	NE	NE	NE
B-202	Nuclear Island	892792.7	1903302.6	423.9	175.5	46.0	Granodiorite	64.0	Granodiorite
B-203	Nuclear Island	892696.1	1903268.9	423.5	151.5	51.5	Quartz Diorite	51.5	Quartz Diorite
B-204	Nuclear Island	892754.6	1903400.2	424.5	150.0	47.0	Quartz Diorite (1)	79.0	Quartz Diorite
B-205	Nuclear Island	892840.4	1903199.2	423.1	175.0	54.0	Quartz Diorite (1)	65.0	Quartz Diorite
B-206(DH)	Nuclear Island/Down-hole Geophysical	892683.5	1903416.2	424.3	214.8	72.0	Pegmatite Dike (Quartz Diorite @ 72.8)	76.0	Quartz Diorite
B-207(DH)	Power Block/Down-hole Geophysical	892824.8	1902949.7	423.9	175.0	43.0	Granodiorite	50.0	Granodiorite
B-208	Power Block	892989.8	1902925.3	422.0	10.5	NE	NE	NE	NE
B-208A [3]	Power Block	892990.7	1902928.9	421.7	115.0	34.5	Hornblende Gneiss	91.5	Hornblende Gneiss
B-209	Power Block	893015.1	1903210.9	407.9	150.0	54.0	Hornblende Gneiss	83.0	Quartz Diorite
B-210	Power Block	892842.5	1903457.4	416.5	115.0	66.0	Quartz Diorite (1)	76.0	Quartz Diorite
B-211(DH)	Adjacent to Power Block/Down-hole Geophysical	892570.0	1903213.8	422.2	176.0	42.0	Granodiorite	45.0	Granodiorite
B-211A [3]	Adjacent to Power Block/Down-hole Geophysical	892568.4	1903205.5	421.8	39.0	NE	NE	NE	NE
B-212	Adjacent to Power Block	893100.7	1903027.4	397.2	68.5	68.5	NE	NE	NE
B-212A [3]	Adjacent to Power Block	893099.4	1903031.8	397.8	115.4	56.0	Hornblende Gneiss	83.2	Hornblende Gneiss
B-213	Adjacent to Power Block	892986.5	1903458.5	401.5	150.0	59.2	Granodiorite (1)	69.8	Biotite Gneiss
B-214	Power Block	892735.7	1903158.7	423.4	115.0	38.5	Quartz Diorite	54.3	Quartz Diorite
B-215	Power Block	892789.9	1903053.3	423.4	175.0	48.5	Pegmatite	53.8	Quartz Diorite
B-216	Power Block	892871.6	1902884.1	423.1	85.0	48.0	Biotite + amphibole Gneiss	54.7	Biotite + amphibole Gneiss
B-216UDP [2]	Power Block	892863.6	1902876.4	423.1	40.5	NE	NE	NE	NE
B-217	Power Block	892933.8	1902898.3	423.3	175.0	51.0	Amphibolite Schist	74.0	Biotite + amphibole Gneiss
B-218	Power Block	892898.9	1902973.4	423.0	115.0	58.5	Quartz Diorite	80.0	Quartz Diorite
B-218UDP [2]	Power Block	892909.2	1902978.1	422.8	50.5	NE	NE	NE	NE
B-219	Power Block	892859.6	1903080.5	423.0	86.0	52.0	Quartz Diorite	76.0	Quartz Diorite
B-220	Power Block	892976.3	1903010.5	421.5	105.0	73.8	Hornblende Gneiss	85.0	Hornblende Gneiss
B-221	Power Block	892928.8	1903108.9	421.7	69.5	69.5	NE	NE	NE
B-221A [3]	Power Block	892934.9	1903109.9	421.6	91.2	60.0	Quartz Diorite	86.2	Quartz Diorite
B-222	Power Block	892879.6	1903150.9	423.2	115.0	58.5	Quartz Diorite	59.5	Quartz Diorite
B-223	Power Block	892961.9	1903324.3	410.5	85.3	40.7	Hornblende Gneiss	66.7	Hornblende Gneiss
B-224	Power Block	892895.9	1903344.4	419.2	116.2	69.5	Quartz Diorite	69.7	Quartz Diorite
B-224UDP [2]	Power Block	892889.9	1903354.9	419.0	55.5	NE	NE	NE	NE
B-225	Power Block	892926.5	1903216.4	425.2	85.0	34.0	Biotite Gneiss	65.6	Hornblende Gneiss
B-226	Power Block	892723.8	1903532.7	422.3	112.5	71.0	Granodiorite (1)	79.5	Granodiorite
B-227	Adjacent to Power Block	892494.0	1903408.0	425.1	54.5	NE	NE	NE	NE
B-228	Adjacent to Power Block	892304.0	1903395.0	419.2	85.1	55.5	Hornblende Gneiss	72.0	Hornblende Gneiss
B-229	Adjacent to Power Block	892394.7	1903147.6	423.2	85.7	55.2	Migmatite	58.8	Migmatite
B-230	Adjacent to Power Block	892658.4	1903033.9	424.5	85.3	39.3	Quartz Diorite	42.0	Quartz Diorite
B-231	Adjacent to Power Block	892519.0	1902844.2	428.4	115.0	54.4	Migmatite	54.4	Migmatite
B-232	Adjacent to Power Block	892767.1	1902865.1	424.0	55.4	35.4	Quartz Diorite	40.5	Quartz Diorite
B-233	Adjacent to Power Block	892784.5	1902686.9	426.1	75.0	37.4	Granodiorite	46.5	Amphibolite Schist
B-234	Adjacent to Power Block	893072.0	1902801.4	421.1	55.0	NE	NE	NE	NE
B-235	Adjacent to Power Block	893192.6	1902941.0	379.4	85.5	62.5	Hornblende Gneiss	76.0	Granodiorite
B-236	Adjacent to Power Block	893133.1	1903296.0	374.7	27.3	27.3	NE	NE	NE
B-236A [3]	Adjacent to Power Block	893140.6	1903298.7	374.4	115.1	38.5	Hornblende Gneiss	78.0	Hornblende Gneiss
B-301(DH)	Nuclear Island/Down-hole Geophysical	891906.9	1902949.2	417.1	129.8	58.0	Granodiorite	60.0	Granodiorite
B-301A [3]	Nuclear Island/Down-hole Geophysical	891895.0	1902945.0	416.2	350.9	54.5	Granodiorite	58.5	Granodiorite
B-302	Nuclear Island	891954.5	1902970.9	417.2	175.8	53.5	Granodiorite	60.0	Granodiorite
B-303	Nuclear Island	891861.4	1902923.5	415.1	150.0	51.5	Quartz Diorite	56.0	Quartz Diorite
B-304	Nuclear Island	891921.7	1903063.2	415.3	150.0	52.7	Granodiorite	55.5	Granodiorite
B-305	Nuclear Island	892004.9	1902859.1	423.9	175.0	57.5	Granodiorite	60.6	Granodiorite
B-305UDP [2]	Nuclear Island	891997.6	1902844.2	424.0	55.5	NE	NE	NE	NE

TABLE 2C
ROCK TYPE SUMMARY TABLE
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Boring Number	Location/Remarks	Northing (6)	Easting (6)	Elevation (ft) (6)	Total Depth (ft, bgs)	Top of Rock (ft, bgs) (4)	Rock Type at Top of Rock	Top of Sound Rock (ft, bgs) (5)	Rock Type at Top of Sound Rock
B-306(DH)	Nuclear Island/Down-hole Geophysical	891854.8	1903077.2	413.4	215.0	44.5	Granodiorite	50.8	Migmatite
B-307(DH)	Power Block/Down-hole Geophysical	891989.1	1902613.3	402.6	176.0	40.0	Biotite Gneiss	40.0	Biotite Gneiss
B-307A (3)	Power Block/Down-hole Geophysical	891982.7	1902610.6	402.4	40.0	NE	NE	NE	NE
B-308	Power Block	892154.5	1902587.6	418.3	115.0	39.5	Granodiorite	46.4	Granodiorite
B-309	Power Block	892160.7	1902842.7	422.6	150.0	46.5	Granodiorite	57.5	Granodiorite
B-310	Power Block	892010.5	1903114.7	417.0	105.8	53.3	Granodiorite	55.0	Granodiorite
B-311(DH)	Adjacent to Power Block/Down-hole Geophysical	891747.1	1902871.4	419.5	175.0	56.5	Migmatite	72.0	Migmatite
B-312	Adjacent to Power Block	892269.4	1902694.0	425.2	115.0	35.0	Migmatite (1)	41.7	Migmatite
B-313	Adjacent to Power Block	892151.4	1903120.7	420.5	150.0	61.0	Granodiorite	61.0	Granodiorite
B-313A (3)	Adjacent to Power Block	892138.9	1903121.8	420.1	35.0	NE	NE	NE	NE
B-314	Power Block	891905.1	1902819.6	417.8	115.0	59.0	Granodiorite	60.0	Granodiorite
B-314A (3)	Power Block	891905.0	1902814.2	417.9	59.0	NE	NE	NE	NE
B-315	Power Block	891945.4	1902714.1	413.4	175.0	43.0	Quartz Diorite (1)	60.0	Quartz Diorite
B-316	Power Block	892005.9	1902534.6	401.2	85.0	37.0	Migmatite	47.6	Migmatite
B-317	Power Block	892095.2	1902571.1	415.5	175.3	27.0	Amphibolite Schist	49.2	Migmatite
B-317A (3)	Power Block	892095.9	1902567.2	415.3	27.0	NE	NE	NE	NE
B-318	Power Block	892066.6	1902642.7	420.2	115.2	49.0	Migmatite	55.7	Migmatite
B-319	Power Block	892046.7	1902720.5	420.5	85.5	46.5	Biotite Gneiss (1)	59.8	Biotite Gneiss
B-320	Power Block	892140.4	1902674.8	422.5	115.0	50.5	Migmatite	50.5	Migmatite
B-321	Power Block	892101.3	1902773.3	422.8	85.1	55.0	Migmatite	55.5	Migmatite
B-322	Power Block	892048.6	1902812.5	425.3	115.5	48.5	Hornblende + biotite Gneiss (1)	65.4	Migmatite
B-323	Power Block	892134.3	1902992.0	420.1	84.9	46.7	Migmatite	48.0	Migmatite
B-324	Power Block	892054.4	1903009.4	419.4	115.2	52.0	Granodiorite	58.0	Granodiorite
B-325	Power Block	892084.9	1902905.1	420.3	85.0	55.0	Granodiorite	58.5	Granodiorite
B-325UDP (2)	Power Block	892088.1	1902912.0	420.0	48.5	NE	NE	NE	NE
B-326	Power Block	891942.1	1903185.1	412.7	115.0	55.0	Granodiorite	64.5	Granodiorite
B-327	Adjacent to Power Block	891669.1	1903076.7	410.6	59.3	49.3	Amphibolite Schist	NE	NE
B-328	Adjacent to Power Block	891465.0	1903044.6	424.6	85.0	75.5	Hornblende Gneiss	75.8	Hornblende Gneiss
B-329	Adjacent to Power Block	891561.8	1902808.3	410.0	85.0	60.0	Gneiss (Granitic)	73.2	Migmatite
B-330	Adjacent to Power Block	891818.9	1902689.4	401.6	86.0	48.8	Granodiorite/Quartz Diorite	55.0	Granodiorite/Quartz Diorite
B-331	Adjacent to Power Block	891714.2	1902465.4	352.8	116.3	25.7	Migmatite	36.7	Migmatite
B-332	Adjacent to Power Block	891931.5	1902530.0	398.4	58.8	43.8	Migmatite	53.8	Migmatite
B-333	Adjacent to Power Block	891946.5	1902319.8	394.4	86.0	26.1	Granodiorite	48.0	Granodiorite
B-334	Adjacent to Power Block	892235.2	1902463.7	418.7	55.5	34.3	Granodiorite	35.5	Granodiorite
B-335	Adjacent to Power Block	892354.8	1902604.2	426.3	85.0	40.0	Amphibolite Schist	43.5	Granodiorite
B-336	Adjacent to Power Block	892359.6	1903068.4	424.3	115.0	37.0	Migmatite (1)	57.5	Migmatite
B-401	Cooling Tower	891028.4	1903589.1	404.0	120.0	64.0	Migmatite	69.0	Granodiorite
B-402	Cooling Tower	891102.4	1903999.8	403.9	61.5	47.7	Migmatite	51.0	Migmatite
B-403	Cooling Tower	890640.6	1903819.7	400.7	82.0	56.0	Granodiorite	72.0	Migmatite
B-404	Cooling Tower	890206.7	1904139.7	410.9	112.6	112.6	NE	NE	NE
B-405	Cooling Tower	890180.1	1903635.0	392.0	52.6	47.2	Pegmatite	NE	NE
B-406	Cooling Tower	890109.4	1903182.2	384.7	64.7	53.5	Quartz Diorite	53.5	Quartz Diorite
B-421	Cooling Tower	891447.2	1902586.2	396.0	78.0	NE	NE	NE	NE
B-421A	Cooling Tower	891444.9	1902585.1	396.2	95.0	78.9	Granodiorite	86.0	Granodiorite
B-422	Cooling Tower	891422.1	1902840.4	411.8	83.5	71.0	Quartz Diorite	72.0	Quartz Diorite
B-423	Cooling Tower	892033.8	1903520.8	408.0	77.4	67.0	Quartz Diorite	67.0	Quartz Diorite
B-424	Cooling Tower	891283.9	1903783.6	387.3	60.7	48.9	Migmatite	48.9	Migmatite
B-501	Makeup Water Structure	897815.3	1903693.7	430.0	80.0	NE	NE	NE	NE
B-501A (3)	Makeup Water Structure	897814.0	1903688.9	430.0	10.0	NE	NE	NE	NE
B-502	Makeup Water Structure	897841.4	1903750.9	428.8	80.0	NE	NE	NE	NE
B-601	Switchyard	892885.4	1902148.3	418.8	85.0	55.2	Quartz Diorite	63.5	Quartz Diorite
B-602	Switchyard	892808.5	1902336.0	438.4	115.8	63.9	Quartz Diorite (1)	64.0	Quartz Diorite

TABLE 2C
ROCK TYPE SUMMARY TABLE
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Boring Number	Location/Remarks	Northing [6]	Easting [6]	Elevation (ft) [6]	Total Depth (ft, bgs)	Top of Rock (ft, bgs) [4]	Rock Type at Top of Rock	Top of Sound Rock (ft, bgs) [5]	Rock Type at Top of Sound Rock
B-603	Switchyard	892736.6	1902523.0	429.3	55.3	48.2	Quartz Diorite	48.0	Quartz Diorite
B-604	Switchyard	892508.3	1902001.9	414.6	86.0	69.6	Hornblende Gneiss	69.6	Hornblende Gneiss
B-605	Switchyard	892437.8	1902187.0	432.2	55.0	NE	NE	NE	NE
B-606	Switchyard	892343.2	1902368.3	424.2	85.0	50.1	Migmatite	50.0	Migmatite
B-607	Switchyard	892137.3	1901852.6	432.0	55.0	NE	NE	NE	NE
B-608	Switchyard	892054.3	1902009.8	411.8	46.0	46.0	NE	NE	NE
B-608A [3]	Switchyard	892053.8	1902007.6	412.1	85.8	31.0	Granodiorite	51.0	Granodiorite
B-609	Switchyard	891984.6	1902227.2	406.1	53.5	53.5	NE	NE	NE
B-610	Relocated Access Road	893456.0	1904107.8	422.5	40.0	NE	NE	NE	NE
B-611	Relocated Access Road	892895.3	1904453.2	405.4	40.0	NE	NE	NE	NE
B-612	Relocated Access Road	892396.1	1904222.2	405.0	62.0	NE	NE	NE	NE
B-613	Relocated Access Road	892503.1	1903763.1	412.8	40.0	NE	NE	NE	NE
B-614	Relocated Access Road	891686.1	1903545.0	375.0	34.8	34.8	NE	NE	NE
B-615	Relocated Access Road	890997.3	1902873.2	387.9	40.0	NE	NE	NE	NE
B-616	Relocated Access Road	890514.7	1902642.5	400.3	40.0	NE	NE	NE	NE
B-617	Existing Access Road	889886.3	1902373.7	450.1	105.0	105.0	NE	NE	NE
B-618	South of Switchyard	890962.5	1901499.0	308.2	32.6	32.6	NE	NE	NE
B-619	West of Southern Nuclear Island	892586.7	1901845.3	405.1	66.0	66.0	NE	NE	NE

TABLE 2C
ROCK TYPE SUMMARY TABLE
SCE&G COL PROJECT
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Boring Number	Location/Remarks	Northing (6)	Easting (6)	Elevation (ft) (6)	Total Depth (ft, bgs)	Top of Rock (ft, bgs) (4)	Rock Type at Top of Rock	Top of Sound Rock (ft, bgs) (5)	Rock Type at Top of Sound Rock
B-620	North of Northern Nuclear Island	893600.9	1903011.1	381.7	100.0	NE	NE	NE	NE
B-621	North of Northern Nuclear Island	893742.3	1903670.2	421.5	101.0	58.5	Amphibolite Schist	76.0	Biotite Gneiss
B-622	North of Northern Nuclear Island	894292.4	1904134.3	437.7	45.0	45.0	NE	NE	NE
B-623	Northeast of Nuclear Island	893814.0	1904949.3	439.6	73.9	73.9	NE	NE	NE
B-624	East of Nuclear Island	891608.9	1904614.0	359.0	31.6	31.6	NE	NE	NE
B-625	East of Cooling Tower Area	889889.7	1904938.0	404.2	110.0	110.0	NE	NE	NE
B-626	Existing Access Road	893200.4	1904143.7	417.2	103.6	103.6	NE	NE	NE
B-627	South of Nuclear Island	891226.4	1902128.7	326.3	101.5	57.5	Granodiorite	61.5	Granodiorite

Notes:

(1) Due to high degree of weathering and/or poor recovery, lithology was not discernable at the depth shown. The Rock Type tabulated is the probable rock type based on nearest less weathered sample below Top of Rock.

(2) Borings with the suffix "UDP" were drilled as directed by Bechtel to obtain undisturbed samples. Refer to the original boring for geologic layer information.

(3) Borings with the suffix "A" were drilled adjacent to the original location due to either difficulties encountered during drilling in the original location; for SPT Energy Measurements; or for geophysical logging purposes. Refer to original boring for geologic layering information

(4) "Top of Rock" tabulated above is the depth at which diamond coring techniques began to advance the borehole. If no diamond coring was performed, then the depth shown is the depth of soil boring refusal.

(5) "Top of Sound Rock" is defined as generally hard, slightly discolored to fresh (bright mineral surfaces) rock with slight alteration/staining localized along joints and shears in the rock mass. RQD typically exceeds about 70%. May be underlain by zones of RQD < 70% but that are composed of mostly slightly weathered to fresh rock

Special Note: Top of Sound Rock depths are MACTEC's interpretation and are generally based on the definition of Sound Rock described above and in the Data Report. Alternate interpretations of depth to Top of Sound Rock could be made by Bechtel for some of the borings, including but not limited to the following:

B-205: Highly weathered seam 82.5 - 85.0 feet; alternate Top of Sound Rock deeper = 85.0

B-206: Highly weathered seams 76.5-77.2, 80.0-80.5, and 81.6-82.5; alternate Top of Sound Rock deeper = 82.5

B-217: Low RQD (32%) due to moderate weathering and jointing 79.0-84.0, weathered seam 88.8-91.0; alternate Top of Sound Rock deeper = 91.0

B-219: Lower RQDs 66.0-71.0 (57%) and 71.0-76.0 (60%); alternate Top of Sound Rock shallower = 52.0

B-333: Highly weathered seams 52.2-53.5, 59.8-60.5, 63.0-65.4,and 67.8-68.2; alternate Top of Sound Rock = 68.2

(6) From Attachment A

NE Not Encountered

PWR Partially Weathered Rock

bgs Below ground surface

msl Mean sea level

NA Not Applicable

Matt Cooke 10/27/06

Clay E Sams 10/30/06

SOIL OR ROCK ZONE	DESCRIPTION
FILL	Man-placed fill soils created to level the site for its use as a construction lay-down yard during the 1970s
ALLUVIUM	Soil formed by deposition from water after erosion and transportation from higher ground; typically occurs on the sides and bottom of drainage features; may be covered by fill soils used to fill in former drainage features
RESIDUAL SOIL	Reddish soils, typically sandy silts (ML) and silty sands (SM) with variable clay content; overall relict rock fabric obscured by intense weathering
SAPROLITE	Completely weathered rock degraded to a soil consistency, but with a preserved relict rock structure.
PARTIALLY WEATHERED (COMPLETELY TO HIGHLY WEATHERED) ROCK (PWR)	Transitional zone from Residual Soil/Saprolite to Rock; typically SPT N-values ≥100 blows per foot. Texture includes a mixture of friable decomposed rock matrix or zones with a soil texture, and semi-hard intact fragments of weathered fragments of the parent bedrock. Decomposed matrix constitutes 50% or more of material by volume, and less-weathered rock fragments are weak and friable with dulled mineral surfaces and considerable oxidation. May occur below the top of rock as determined by refusal to soil drilling methods, in which case the diamond coring recovery is 0 or very low and RQD typically is 0% and/or non-applicable
TOP OF ROCK	The depth at which refusal to soil drilling methods, consisting of mud rotary or hollow stem augers occurs, and diamond coring must be used to penetrate deeper.
MODERATELY WEATHERED ROCK	Weathered rock exhibiting greater than 50% by volume of hard, fresh to partly discolored rock blocks with interspersed zones and seams of decomposed (completely to highly weathered) rock. Hard rock blocks can usually be scratched with a knife (sometimes with difficulty), and exhibit a thud to slight rebound in response to blows from a geologic hammer; decomposed seams and zones are hand or pick friable. Drilling advance requires diamond coring or percussive hammer techniques. Core recovery quite variable, and RQD typically ranges from 0% to about 50 %.
SOUND (SLIGHTLY WEATHERED TO FRESH) ROCK	Generally hard, slightly discolored to fresh (bright mineral surfaces) rock with slight alteration/staining localized along joints and shears in the rock mass. RQD typically exceeds about 70%. May be underlain by zones of RQD < 70% but that are composed of mostly slightly weathered to fresh rock

TABLE 3
Soil and Rock Zones

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)	CLEAN GRAVELS (Little or no fines)	GW	GRAVEL, well graded
			GP	GRAVEL, poorly graded
		GRAVELS WITH FINES (Appreciable amount of fines)	GM	GRAVEL, sand and silt
			GC	GRAVEL, clay
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size)	CLEAN SANDS (Little or no fines)	SW	SAND, well graded
			SP	SAND, poorly graded
		SANDS WITH FINES (Appreciable amount of fines)	SM	SAND, silty
			SC	SAND, clayey
FINE GRAINED SOILS (More than 50% of material is SMALLER than the No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)		ML	SILT, sandy or clayey, low plasticity
			CL	CLAY, low plasticity
			OL	SILT, organic or CLAY organic, low plasticity
	SILTS AND CLAYS (Liquid limit GREATER than 50)		MH	SILT, sandy or clayey, high plasticity
			CH	CLAY, high plasticity
			OH	CLAY, organic, or SILT, organic, high plasticity

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

TABLE 4 (Page 1 of 2)
CERTAIN TERMS USED FOR SOIL DESCRIPTIONS ON gINT BORING LOGS IN ATTACHMENT B

Correlation of Penetration Resistance with Relative Density and Consistency			
SAND & GRAVEL		SILT & CLAY	
No. of Blows	**Relative Density**	**No. of Blows**	**Consistency**
0 - 4	Very Loose	0 - 1	Very Soft
5 – 10	Loose	2 – 4	Soft
11 – 30	Medium Dense	5 – 8	Medium Stiff
31 - 50	Dense	9 – 15	Stiff
Over 50	Very Dense	16 - 30	Very Stiff
		Over 31	Hard

MOISTURE CONDITION:

Dry	Absence of moisture, dusty, dry to the touch.
Damp	Slight moisture content, difficult to mold fines into ball.
Moist	Moisture evident but no visible water, fines can be molded into ball.
Wet	Visible free water, soil is usually below water table.

TABLE 4 (2 of 2)
CERTAIN TERMS USED FOR SOIL DESCRIPTIONS ON gINT BORING LOGS IN ATTACHMENT B

Rock Strength Classification Scale

Term	Strength Designator on Rock Logs	Field Identification
Extremely Weak	R0	Can be indented with difficulty by thumbnail. May be friable or moldable with finger pressure.
Very Weak	R1	Crumbles under firm blows with point of geologic hammer. Can be peeled by a pocket knife.
Weak	R2	Can be peeled or scraped by a pocket knife. Specimen can be fractured with a single firm blow of a hammer/geologic pick.
Medium Strong	R3	Cannot be scraped or picked with a pocket knife. Specimen can be fractured with a single firm blow of a hammer/geologic pick.
Strong	R4	More than one blow of geologic hammer required to fracture specimen.
Very Strong	R5	Specimen requires many hard blows of hammer to fracture or chip. Hammer rebounds after impact.
Extremely Strong	R6	Specimen can only be chipped by hammer.

TABLE 5 (Page 1 of 2)
DEFINITIONS OF CERTAIN MAJOR TERMS FOR ROCK CORE gINT BORING LOGS IN ATTACHMENT B

Rock Weathering Classification Scale

Designation	Symbol on Rock Logs	Field Identification
Fresh	F	No visible sign of rock material weathering: perhaps slight discoloration on major discontinuity surfaces. Rings under hammer impact
Slightly Weathered	SW	Rock mass is generally fresh with slight discoloration in rock fabric. Discontinuities are stained and may contain clay. Decomposition extends up to 1 inch into rock.
Moderately Weathered	MW	Less than 50% of rock is decomposed. Significant portion of rock shows discoloration and weathering effects. Crystals are dull and/or altered. Discontinuities are stained and may contain secondary minerals. Strength is significantly less than fresh rock.
Highly Weathered	HW	Rock mass is more than 50% decomposed. Rock can be broken by hand or scraped with knife or pick. All discontinuities exhibit secondary mineralization. Surface or core is friable and /or pitted due to washing out of highly altered minerals by drill water.
Completely Weathered	CW	Rock mass is completely decomposed but rock fabric and structure may still be evident (saprolite). Specimen is easily crumbled or penetrated with pocket knife or geologic pick.
Residual Soil	RS	All rock material is decomposed to soil. Rock fabric and structure completely destroyed. There is a large change in volume, but soil has not been significantly transported.

TABLE 5 (Page 2 of 2)
DEFINITIONS OF CERTAIN MAJOR TERMS FOR ROCK CORE gINT BORING LOGS IN ATTACHMENT B

Table 6-1

Summary of Soil Tests
Copy of Table F-1 (Rev. 1) From Attachment F
(See Following 5 Pages)

Prepared By/Date, JBS 12/29/06
Checked By/Date, CBS 12/29/06

Table F-1 (Rev. 1)
SUMMARY OF SOIL TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS Note (5)	Natural Moisture Content (%) at e_o						LL	PI	G_s	Dry Density (pcf) at e_o					Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
										SPT	Triaxial or Direct Shear 1	2	3	Cons.	Avg.				Triaxial or Direct Shear 1	2	3	Cons.	Avg.				
B-201	1	0	SPT						CL-ML	10.8																	
B-201	2	1.5	SPT	0	57	43	20	23	SM	19.3						NV	NP										
B-201	4	6	SPT	0	57	42	34	8	SM	18.4						NV	NP								5.4	4.1	5.1 (3)
B-201	6	11	SPT	0	67	33			SM	18.8																	
B-201	7	13.5	SPT	0	63	37	28	9	SM	20.1						NV	NP										
B-201	8	18.5	SPT	0	68	32			SM	24.9																	
B-201	9	23.5	SPT						SM	24.5															5.6	3.9	6.0 (3)
B-201	10	28.5	SPT	0	62	39	34	5	SM	28.6						NV	NP										
B-201	11	33.5	SPT	4	87	8			SW-SM	9.1															6.0	1.9 (3)	7.5
B-201	13	43.5	SPT	0	79	20	19	1	SM	15.9																	
B-201	14	48.5	SPT	1	77	23			SM	16.0																	
B-203	2	1.5	SPT	0	74	26			SM	15.4																	
B-203	4	6	SPT	0	70	30	26	4	SM	20.5																	
B-203	6	11	SPT	0	67	24			SM	24.0																	
B-203	8	18.5	SPT	0	68	32			SM	23.3																	
B-203	9	23.5	SPT	0	63	37	31	6	SM	31.1																	
B-203	11	33.5	SPT	0	70	31			SM	29.1																	
B-203	13	43.5	SPT	0	58	42	37	5	SM	32.3																	
B-203	14	48.5	SPT	0	71	29			SM	24.6																	
B-204	UD-1	8.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-204	UD-2	18.5	UD						ML		17.30			18.2	17.8	NV	NP	2.87	91.14			98.99	95.07	112			
B-204	UD-3	28.5	UD						ML					24.1	24.1	NV	NP	2.95				87.44	87.44	109			
B-204	UD-4	38.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-205	2	1.5	SPT	0	23	78	42	36	ML	34.6						NV	NP										
B-205	4	6	SPT	0	29	71			ML	22.9															5.3	4.5	5.6 (3)
B-205	6	11	SPT	0	35	65			ML	31.7																	
B-205	8	18.5	SPT	0	38	62	51	11	ML	30.8						NV	NP										
B-205	9	23.5	SPT	0	60	40			SM	31.6																	
B-205	10	28.5	SPT	15	51	34			SM	34.0																	
B-205	11	33.5	SPT	64	30	7			GW-GM	13.5																	
B-205	13	43.5	SPT	4	58	38	34	4	SM	21.5						NV	NP										
B-205	14	48.5	SPT	11	45	44	40	4	SM	7.8						NV	NP										
B-206	2	1.5	SPT						ML	22.8																	
B-206	4	6	SPT	0	63	37			SM	29.8																	
B-206	6	11	SPT	0	61	39	32	7	SM	30.7																	
B-206	8	18.5	SPT	0	74	26			SM	13.4															5.2	4.2	6.2
B-206	10	28.5	SPT	0	68	32	27	5	SM	30.8																	
B-206	12	38.5	SPT	0	64	36	31	5	SM	27.9						NV	NP										
B-206	14	48.5	SPT	0	70	31			SM	26.4																	
B-206	16	58.5	SPT	0	72	28			SM	24.1																	
B-206	18	68.5	SPT	0	78	22	21	1	SM	21.5																	
B-207	1	0	SPT	0	70	30	24	6	SM	9.4						NV	NP										
B-207	5	8.5	SPT	0	81	19			SM	20.8															5.4	5.8	15.4
B-207	6	11	SPT	0	75	25	23	2	SM	19.2						NV	NP										
B-207	7	13.5	SPT	0	79	21			SM	17.8																	
B-207	8	18.5	SPT	0	77	23			SM	21.4																	
B-207	9	23.5	SPT	0	79	22	20	2	SM	32.8																	
B-207	10	28.5	SPT	0	76	24			SM	29.9																	
B-207	11	33.5	SPT	0	64	35	29	6	SM	23.1						NV	NP										
B-207	12	38.5	SPT	6	78	16			SM	16.4																	

Prepared By/Date, JPS 12/29/06
Checked By/Date, CBS 12/29/06

Table F-1 (Rev. 1)
SUMMARY OF SOIL TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Source of Sample	Sample No	Depth (ft)	Sample Type	Gravel [1] (%)	Sand [1] (%)	Fines [1] (%)	Silt [1] (%)	0.005 mm Clay [1] (%)	USCS Note (5)	Natural Moisture Content (%) at e_o: SPT	Natural Moisture Content (%) at e_o: Triaxial or Direct Shear 1	Triaxial or Direct Shear 2	Triaxial or Direct Shear 3	Cons.	Avg.	LL	PI	G_s	Dry Density (pcf) at e_o: Triaxial or Direct Shear 1	Triaxial or Direct Shear 2	Triaxial or Direct Shear 3	Cons.	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-208	UD-1	8.5	UD	0	16	84	21	63	CH		22.30	25.00			23.7	59	31		97.66	90.15			93.91	116			
B-208	UD-2	18.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-208	UD-3	28.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-209	UD-1	8.5	UD						MH		42.90			42.9	42.9	56	11	2.81	71.22			69.95	70.59	101			
B-209	UD-2	18.5	UD	2	55	43	30	13	SM		56.9	45.50	43.70		48.7	55	12		59.71	64.90	68.52		64.38	96			
B-209	UD-3	28.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-209	UD-4	38.5	UD						ML		29.60			30.7	30.2	NV	NP	2.86	85.87			88.77	87.32	114			
B-210	UD-1	8.5	UD						ML		21.90			22.7	22.3	NV	NP	2.75	88.55			88.57	88.56	108			
B-210	UD-2	18.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-210	UD-3	28.5	UD						ML		26.00			20.7	23.4	NV	NP	2.73	91.87			99.83	95.85	118			
B-210	UD-4	38.5	UD						ML					27.1	27.1	NV	NP	2.78				84.91	84.91	108			
B-211	2	1.5	SPT	0	65	35	31	4	SM	14.8						NV	NP										
B-211	3	3.5	SPT	0	44	56			ML	20.6																	
B-211	4	6	SPT	0	70	30	22	8	SM	28.2						NV	NP										
B-211	5	8.5	SPT	0	71	30			SM	35.4																	
B-211	6	11	SPT	0	62	38	34	4	SM	17.9						NV	NP										
B-211	7	13.5	SPT	0	63	37			SM	26.7																	
B-211	8	18.5	SPT	0	56	44	38	6	SM	22.6						NV	NP										
B-211	9	23.5	SPT	0	70	30			SM	26.7															5.7	3.3 (4)	3.5 (3)
B-211	10	28.5	SPT	0	72	28	24	4	SM	26.0						NV	NP										
B-211	11	33.5	SPT	0	72	28			SM	23.4																	
B-211	12	38.5	SPT	0	69	31	29	2	SM	31.3						NV	NP										
B-215	2	1.5	SPT						ML	21.1																	
B-215	3	3.5	SPT	0	59	41			SM	28.8																	
B-215	4	6	SPT	0	64	36	30	6	SM	34.1																	
B-215	UD-1	8.5	UD						SM		32.50			28.4	30.5	NV	NP	2.78	84.01			87.93	85.97	112			
B-215	5	11	SPT	0	71	29	23	6	SM	25.7						NV	NP										
B-215	6	13.5	SPT	0	75	25			SM	25.6																	
B-215	UD-2	18.5	UD						SM		23.80			24.6	24.2	NV	NP	2.82	90.34			92.00	91.17	113			
B-215	7	23.5	SPT	0	68	32	28	4	SM	22.7																	
B-215	UD-3	28.5	UD	0	70	30			SM		24.20				24.2				86.70				86.70	108			
B-215	8	33.5	SPT	0	68	32			SM	24.6															5.6	1.9 (3)(4)	3.0
B-215	UD-4	38.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-215	9	43.5	SPT	0	59	41	36	5	SM	27.1																	
B-216	2	1.5	SPT	0	57	43	35	8	SM	20.6						NV	NP										
B-216	3	3.5	SPT	0	56	43			SM	22.4																	
B-216	UD-1	6.5	UD	0	5	95	70	25	ML		35.80	35.80			35.8	NV	NP		64.72	63.38			64.05	87			
B-216	4	8.5	SPT	0	17	83	60	23	ML	41.1																	
B-216	5	11	SPT	0	26	74			ML	38.1																	
B-216	UD-2	13.5	UD	0.5	17	83	66	17	ML		37.60	27.60			32.6	NV	NP		74.62	87.76			81.19	108			
B-216	6	18.5	SPT	1	32	68	53	15	ML	49.3						NV	NP										
B-216	UD-3	23.5	UD	0	15	84	63	21	ML		35.00	35.40	35.80		35.4	NV	NP		72.86	80.86	90.94		81.55	110			
B-216	7	28.5	SPT	34	34	33			GM	24.5															6.0	1.8 (3)	4.6 (3)
B-216	8	32	SPT	76	12	12			GM	10.1																	
B-216	9	38.5	SPT	0	27	72	65	7	ML	28.6																	
B-216	10	43.5	SPT	14	50	36			SM	24.7																	

CHANGED DRY DENSITY, EFFECTING AVG DRY DENSITY AND AVG. WET DENSITY.

Prepared By/Date, JBS 12/29/06
Checked By/Date, CES 12/29/06

Table F-1 (Rev. 1)
SUMMARY OF SOIL TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel [1] (%)	Sand [1] (%)	Fines [1] (%)	Silt [1] (%)	0.005 mm Clay [1] (%)	USCS Note (5)	Natural Moisture Content (%) at e_o SPT	Natural Moisture Content (%) at e_o Triaxial or Direct Shear 1	Triaxial or Direct Shear 2	Triaxial or Direct Shear 3	Cons.	Avg.	LL	PI	G_s	Dry Density (pcf) at e_o Triaxial or Direct Shear 1	Triaxial or Direct Shear 2	Triaxial or Direct Shear 3	Cons.	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-217	2	1.5	SPT	2	31	67	26	41	ML	26.6						NV	NP										
B-217	3	3.5	SPT	0	57	43			SM	28.9																	
B-217	4	6	SPT	0	56	43	23	20	SM	23.7																	
B-217	UD-1	8.5	UD	0	65	35	25	10	SM		29.00	26.50			27.8	NV	NP		86.37	89.48			87.93	112			
B-217	5	10.5	SPT	0	56	44	35	9	SM	21.3						NV	NP								5.4	5.9	3.3 (3)
B-217	6	13.5	SPT	0	71	29			SM	27.9																	
B-217	UD-2	18.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-217	7	23.5	SPT	0	70	30	24	6	SM	26.5																	
B-217	8	33.5	SPT	0	60	40			SM	45.8																	
B-217	UD-4	38.5	UD	(2)	(2)	(2)			(2)							(2)	(2)										
B-217	9	43.5	SPT	6	69	25			SM	19.0																	
B-217	10	48.5	SPT	44	39	17	15	2	SM	13.3																	
B-220	2	1.5	SPT	0	32	68	26	42	MH	20.5																	
B-220	3	3.5	SPT	0	26	74			MH	25.4																	
B-220	4	6	SPT						MH	25.1						73	20										
B-220	5	8.5	SPT	0	36	64	22	42	MH	23.7															5.5	3.4	3.7 (3)
B-220	6	11	SPT	0	76	24			SM	23.0																	
B-220	7	13.5	SPT	0	58	42	27	15	SM	21.3																	
B-220	8	18.5	SPT	0	59	41			SM	25.2																	
B-220	9	23.5	SPT	0	62	39			SM	22.8																	
B-220	11	33.5	SPT	0	70	30	26	4	SM	20.6																	
B-220	12A	41	SPT	0	75	25			SM	19.3																	
B-220	14	48.5	SPT	6	55	39	35	4	SM	27.9																	
B-220	16	58.5	SPT	3	56	42	38	4	SM	22.6																	
B-222	UD-1	8.5	UD						ML					26.7	26.7	NV	NP	2.71				90.49	90.49	115			
B-222	UD-2	18.5	UD						ML		23.80			20.8	22.3	NV	NP	2.84	86.95			92.61	89.78	110			
B-222	UD-3	28.5	UD	0	64	36			SM		20.30				20.3				87.10				87.10	105			
B-222	UD-4	38.5	UD	(2)	(2)	(2)	(2)	(2)	(2)									(2)									
B-301	2	1.5	SPT	1	72	27			SM	12.9																	
B-301	3A	3.5	SPT						SM	12.6						NV	NP										
B-301	3B	3.5	SPT						CH	62.6																	
B-301	4	6	SPT	0	65	35	27	8	SM	18.9															5.7	4.7	12.0
B-301	6	11	SPT	0	75	25			SM	15.1																	
B-301	7	13.5	SPT	0	71	29	26	3	SM	15.9						NV	NP										
B-301	8	18.5	SPT	0	76	24			SM	15.7															5.3	3.2	4.0 (3)
B-301	9	23.5	SPT	0	77	23			SM	14.7																	
B-301	10	28.5	SPT	0	76	24	22	2	SM	15.9						NV	NP										
B-301	11	33.5	SPT	0	74	26			SM	17.0																	
B-301	12	38.5	SPT	0	74	26			SM	19.6																	
B-301	13	43.5	SPT	0	64	36	33	3	SM	33.4																	
B-301	14	48.5	SPT	0	79	20	19	1	SM	18.4						NV	NP										
B-301	15	53.5	SPT	1	78	22			SM	20.9																	
B-305	2	1.5	SPT	0	68	32			SM	18.6																	
B-305	3	3.5	SPT	0	54	46	22	24	SM	30.3						NV	NP										
B-305	5	8.5	SPT	0	71	29			SM	38.0															5.2	8.5	4.0 (3)
B-305	7	13.5	SPT	0	69	31			SM	39.9																	
B-305	8	18.5	SPT	0	66	34	29	5	SM	26.4																	
B-305	10	28.5	SPT	0	75	25			SM	26.8																	
B-305	12	38.5	SPT	0	73	28	25	3	SM	29.5																	
B-305	14	48.5	SPT	0	76	24			SM	27.6																	

Prepared By/Date, JRS 12/29/06
Checked By/Date, CES 12/29/06

Table F-1 (Rev. 1)
SUMMARY OF SOIL TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS Note (5)	Natural Moisture Content (%) at e_o: SPT	Triaxial or Direct Shear 1	Triaxial or Direct Shear 2	Triaxial or Direct Shear 3	Cons.	Avg.	LL	PI	G_s	Dry Density (pcf) at e_o: Triaxial or Direct Shear 1	Triaxial or Direct Shear 2	Triaxial or Direct Shear 3	Cons.	Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-306	2	1.5	SPT	0	21	79	39	40	ML	29.9						NV	NP										
B-306	3	3.5	SPT	0	70	30			SM	34.2																	
B-306	4	6	SPT	0	45	55	40	15	ML	29.6																	
B-306	6	11	SPT	0	57	43			SM	29.9						NV	NP								5.2	7.0	5.4 (3)
B-306	8	18.5	SPT	0	31	68	60	8	ML	29.6																	
B-306	9	23.5	SPT	1	23	77			MH	52.1						62	13										
B-306	11	33.5	SPT	0	71	30	27	3	SM	25.6																	
B-306	12	38.5	SPT	0	60	40			SM	31.6																	
B-307	1	0	SPT						MH	34.7						63	25										
B-307	2	1.5	SPT	0	8	93	34	59	MH	29.3						76	19										
B-307	3	3.5	SPT	0	16	84			MH	27.9																	
B-307	4	6	SPT	0	17	83	47	36	MH	27.8															5.2	8.4	6.7
B-307	5	8.5	SPT	0	67	33			SM	11.0																	
B-307	6	11	SPT	0	61	38			SM	13.8																	
B-307	7A	16	SPT	0	44	56	30	26	ML	46.5						NV	NP										
B-307	9	23.5	SPT	2	38	60			ML	31.0																	
B-307	10	28.5	SPT	0	58	42	37	5	SM	22.5																	
B-307	11	33.5	SPT	10	67	24			SM	23.8																	
B-307	12	38.5	SPT	0	54	46	41	5	SM	36.3																	
B-309	UD-1	8.5	UD	0	65	36	26	10	SM		32.3	12.4			22.4	NV	NP		83.65	90.72			87.19	107			
B-309	UD-2	18.5	UD	(2)	(2)	(2)			SM							(2)	(2)										
B-309	UD-3	28.5	UD	0	30	70	48	22	ML		28.6	26.8			27.7	NV	NP		77.83	85.07			81.45	104			
B-309	UD-4	38.5	UD	0	51	49			SM		21.7				21.7				88.60				88.60	108			
B-311	1	0	SPT	0	11	88	33	55	MH	30.9						70	19										
B-311	2	1.5	SPT	0	26	74			MH	35.0																	
B-311	3	3.5	SPT	0	36	64	26	38	MH	30.5						77	25										
B-311	4	6	SPT	0	30	70			ML	34.1																	
B-311	5	8.5	SPT	0	49	51	34	17	ML	29.1						NV	NP										
B-311	6	11	SPT	0	68	32			SM	26.5																	
B-311	7	13.5	SPT	0	76	24			SM	20.0															5.3	4.5	6.0
B-311	8	18.5	SPT	0	10	90	75	15	ML	28.8																	
B-311	9	23.5	SPT	0	57	44			SM	24.6																	
B-311	10	28.5	SPT	0	28	72	53	19	ML	34.0																	
B-311	11	33.5	SPT	0	40	60			ML	35.0																	
B-311	12	38.5	SPT	0	34	66	50	16	ML	39.7																	
B-311	13	43.5	SPT	0	56	45			SM	43.2																	
B-311	14	48.5	SPT	0	75	25	22	3	SM	21.1																	
B-311	15	53.5	SPT	18	60	21			SM	13.4															5.9	2.9	7.3
B-317	1	0	SPT						MH	28.5						64	27										
B-317	2	1.5	SPT	3	81	16			SM	24.6																	
B-317	3	3.5	SPT	0	38	62	33	29	MH	26.1						58	11										
B-317	4	6	SPT	0	29	72	31	41	MH	29.5																	
B-317	5	8.5	SPT	0	92	8			SW-SM	24.4															5.0	6.5	14.5
B-317	6	11	SPT	0	33	67	43	24	MH	26.4																	
B-317	7	13.5	SPT	0	37	63	35	28	MH	33.2						57	16										
B-317	8	18.5	SPT	0	29	71			ML	31.8																	
B-317	9	23.5	SPT	1	54	44			SM	32.4																	
B-319	UD-1	8.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-319	UD-2	18.5	UD	1	71	28			SM		19.50				19.5				91.60				91.60	109			
B-319	UD-3	28.5	UD						ML		22.90			26.8	24.9	NV	NP	2.75	89.36			94.34	91.85	115			
B-319	UD-4	38.5	UD						ML					19.6	19.6	NV	NP	2.75				102.80	102.8	123			

Prepared By/Date, JRS 12/29/06
Checked By/Date, CES 12/29/06

Table F-1 (Rev. 1)
SUMMARY OF SOIL TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Source of Sample	Sample No.	Depth (ft)	Sample Type	Gravel (1) (%)	Sand (1) (%)	Fines (1) (%)	Silt (1) (%)	0.005 mm Clay (1) (%)	USCS Note (5)	Natural Moisture Content (%) at e_o SPT	Natural Moisture Content (%) at e_o Triaxial or Direct Shear 1	Natural Moisture Content (%) at e_o Triaxial or Direct Shear 2	Natural Moisture Content (%) at e_o Triaxial or Direct Shear 3	Natural Moisture Content (%) at e_o Cons.	Natural Moisture Content (%) at e_o Avg.	LL	PI	G_s	Dry Density (pcf) at e_o Triaxial or Direct Shear 1	Dry Density (pcf) at e_o Triaxial or Direct Shear 2	Dry Density (pcf) at e_o Triaxial or Direct Shear 3	Dry Density (pcf) at e_o Cons.	Dry Density (pcf) at e_o Avg.	Wet Density Avg. (pcf)	pH	Chloride (mg/kg)	Sulfate (mg/kg)
B-320	2	1.5	SPT	0	35	65	39	26	ML	23.9						NV	NP										
B-320	3	3.5	SPT	0	70	30			SM	29.5						NV	NP										
B-320	4	6	SPT	0	61	39	26	13	SM	20.4																	
B-320	5	8.5	SPT	0	63	37			SM	25.3															4.9	6.4	6.1 (3)
B-320	6	11	SPT	0	62	38	31	7	SM	33.4																	
B-320	7	13.5	SPT	0	65	35			SM	23.3																	
B-320	8	18.5	SPT	0	58	42			SM	30.0																	
B-320	9	23.5	SPT	0	69	31	27	4	SM	27.5																	
B-320	10	28.5	SPT	0	69	31			SM	22.5																	
B-320	11	33.5	SPT	0	73	27	23	4	SM	17.2																	
B-320	12	38.5	SPT	1	73	26			SM	24.1															6.0	7.3	16.6
B-320	13	43.5	SPT	0	46	54	49	5	ML	44.2						NV	NP										
B-321	UD-2	18.5	UD	0	66	34	25	9	SM		19.90	19.40			19.7	NV	NP		88.67	92.90			90.79	109			
B-321	UD-3	28.5	UD						SM					16.7	16.7	NV	NP	2.83				102.60	102.6	120			
B-322	UD-1	8.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-322	UD-2	18.5	UD	0	71	29	20	9	SM		16.90	13.90	14.90		15.2	NV	NP		85.96	95.15	83.74		88.28	102			
B-322	UD-3	28.5	UD	(2)	(2)	(2)	(2)	(2)	(2)							(2)	(2)										
B-325	2	1.5	SPT	0	56	44			SM	29.0																	
B-325	UD-1	3.5	UD	0	44	57			ML		38.00				38.0				78.20				78.2	108			
B-325	3	6	SPT	1	51	48	36	12	SM	39.9						NV	NP										
B-325	4	11	SPT	0	58	42	32	10	SM	18.0																	
B-325	UD-3	13.5	UD						SM		30.70			20.9	25.8	NV	NP	2.77	74.67			91.14	82.91	104			
B-325	5	16	SPT	0	65	34	26	8	SM	22.3						NV	NP										
B-325	UD-4	18.5	UD	(2)	(2)	(2)			(2)							(2)	(2)										
B-325	6	21	SPT	0	71	29			SM	35.6															5.6	3.4	10.3
B-325	7	26	SPT	0	71	29	22	7	SM	16.6						NV	NP										
B-325	8	31	SPT	1	67	32			SM	19.9																	
B-325	9	36	SPT	0	70	31	26	5	SM	16.4						NV	NP										
B-325	UD-8	38.5	UD						SM		23.50			18.5	21.0	NV	NP	2.69	93.47			101.30	97.39	118			
B-325	10	41	SPT	0	55	45	39	6	SM	23.9																	
B-325	11	46	SPT	2	34	64			ML	24.1																	
B-325	13	53.5	SPT	No Recovery																							

(1) Due to computer roundoff, particle size fractions may total 100 ± 1. Fines include silt plus clay.
(2) These results included with RCTS Tests in Attachment I.
(3) Estimated result. Result is less than STL laboratory reporting limit. Actual value will not exceed values shown.
(4) The associated method blank contains the target analyte at a reportable level. The actual value may be less than value shown
(5) USCS Symbol is based on visual-manual method where incomplete classification testing was performed.

Table 6-2

Summary of Remolded Soil Tests
Copy of Table F-2 (Rev. 1) From Attachment F
(See Next Page)

Prepared By/Date: JRS 11/30/06
Reviewed By/Date: CES 11/30/06

Table F-2 (Rev. 1)
SUMMARY OF REMOLDED SOIL TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534S

Source of Sample	Depth (ft)	Material Description	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	Clay (%)	USCS	Natural Moisture (%)	LL	PL	PI	Max Dry Density (pcf)	Optimum Moisture (%)	CBR Soaked (at 0.1")	CBR Unsoaked (at 0.1")
Test Pit - TP-201	1' - 6'	SAND, Silty (SM), Red, Micaceous	0	57	43	28	15	SM	23.4	NV	NP	NP	107.8	17.0	7.0	27.1
Test Pit - TP-227	3' - 5'	SILT, Sandy (ML), Red, Micaceous	0	46	54	39	15	ML	27.8	NV	NP	NP	107.0	17.9	6.9	31.6
Test Pit - TP-301	0' - 3'	SAND, Silty, (SM), Yellowish Brown, Micaceous	0	68	32	24	8	SM	21.1	NV	NP	NP	105.7	16.1	6.3	28.2
Test Pit - TP-405	0' - 4'	SAND, Silty (SM), Dark Yellowish Brown, Micaceous	0	64	36	32	4	SM	27.3	NV	NP	NP	108.8	15.3	3.6	21.9
Test Pit - TP-MM1	n/a	SAND (SW), Dark Gray, Washed Granitic Screenings from Stockpile	2	95	3	-	-	SW (1)	5.0	-	-	-	122.9	10.7	21.9	32.4
Test Pit - TP-MM2	n/a	SAND (SW-SM) with Silt, Dark Gray, Unwashed Granitic Screenings from Stockpile	4	86	10	5	5	SW-SM (1)	1.7	-	-	-	125.2	8.2	25.8	29.2

(1) USCS Syumbol based on visual-manual examination if no test performed for LL and PI.
See individual test reports for complete test results.

Table 6-3

Summary of Rock Core Tests
Copy of Table F-3 From Attachment F
(See Next 3 Pages)

Prepared By/Date, BRR 11/28/06
Checked By/Date, CES 11/28/06

Table F-3
SUMMARY OF ROCK CORE TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534

Source of Sample	Depth (ft)	Rock Type	Length to Diameter Ratio	Unit Wt. (pcf)	Unconfined Compressive Strength (psi)	Unconfined Compressive Strength (psi) (L/D Correction)	Modulus (psi)	Poisson's Ratio	Type of Break	Maximum Mineral Grain Size > Diameter/10 (Y or N)
B-201	53.00	Granodiorite	2.18	171	22,918	23,134	NA	NA	Cone	Y
B-201	58.08	Granodiorite	2.21	171	23,056	23,298	7,830,000	0.35	Cone	Y
B-201	65.65	Granodiorite	2.22	170	9,361	9,464	NA	NA	Columnar	Y
B-201	70.70	Granodiorite	2.22	169	18,760	18,967	NA	NA	Columnar	Y
B-201	81.70	Granodiorite	2.21	170	24,258	24,512	8,080,000	0.35	Cone	Y
B-201	92.10	Granodiorite	2.22	168	23,593	23,858	NA	NA	Cone & Shear	Y
B-201	101.30	Quartz Diorite	2.19	181	28,396	28,675	NA	NA	Cone & Shear	N
B-201	109.73	Quartz Diorite	2.21	180	29,501	29,809	9,730,000	0.32	Cone & Shear	N
B-201	131.20	Quartz Diorite	2.21	184	23,027	23,269	NA	NA	Shear	N
B-201	151.53	Quartz Diorite	2.18	184	23,278	23,494	NA	NA	Shear	N
B-201	191.48	Quartz Diorite	2.23	185	19,005	19,222	9,390,000	0.30	Columnar	N
B-201	238.10	Quartz Diorite	2.19	183	25,081	25,325	NA	NA	Cone	N
B-201	271.23	Quartz Diorite	2.22	188	21,922	22,161	NA	NA	Columnar	N
B-201	311.90	Quartz Diorite	2.22	185	21,552	21,790	8,880,000	0.30	Shear	N
B-201	349.06	Biotite Gneiss	2.22	165	28,594	28,908	NA	NA	Shear	N
B-203	56.20	Quartz Diorite	2.00	185	28,367	28,372	9,190,000	0.32	Cone & Shear	N
B-203	61.45	Granodiorite	2.12	172	25,112	25,266	NA	NA	Cone	Y
B-203	63.10	Granodiorite	2.18	169	34,660	34,987	NA	NA	Cone & Shear	N
B-203	71.87	Granodiorite	2.12	182	29,052	29,231	10,110,000	0.30	Cone & Shear	N
B-203	83.13	Quartz Diorite to Migmatite	2.10	184	30,453	30,611	NA	NA	Cone	N
B-203	99.09	Quartz Diorite	2.13	184	22,418	22,566	NA	NA	Cone & Shear	N
B-203	114.55	Quartz Diorite	2.10	184	30,880	31,042	9,390,000	0.33	Cone & Shear	N
B-203	133.35	Quartz Diorite	2.10	184	24,139	24,264	NA	NA	Columnar	N
B-203	148.12	Quartz Diorite	2.18	183	22,777	22,991	NA	NA	Cone & Shear	N
B-205	68.50	Quartz Diorite	2.18	182	25,217	25,451	NA	NA	Columnar	Y
B-205	72.54	Quartz Diorite	2.24	181	24,074	24,360	9,990,000	0.30	Shear	N
B-205	91.40	Quartz Diorite	2.22	182	21,417	21,659	NA	NA	Cone & Shear	N
B-205	124.32	Quartz Diorite	2.20	184	29,753	30,056	NA	NA	Cone & Shear	N
B-205	155.50	Quartz Diorite	2.20	183	27,113	27,388	9,730,000	0.29	Cone & Shear	N
B-206	78.70	Quartz Diorite	2.11	181	25,164	25,310	9,030,000	0.34	Cone & Shear	N
B-206	79.55	Quartz Diorite	2.11	179	13,352	13,433	NA	NA	Shear	N
B-206	88.70	Granodiorite	2.12	170	24,578	24,729	NA	NA	Cone & Shear	Y
B-206	104.69	Quartz Diorite	2.11	180	25,308	25,450	6,830,000	0.21	Shear	N
B-206	125.02	Quartz Diorite	2.13	184	15,860	15,964	NA	NA	Cone & Shear	N
B-206	146.50	Quartz Diorite	2.14	186	22,782	22,954	NA	NA	Cone & Shear	Y
B-206	177.58	Quartzite	2.13	166	37,596	37,857	9,340,000	0.27	Columnar	N
B-206	212.50	Granodiorite	2.13	171	27,257	27,443	NA	NA	Cone & Shear	Y
B-207	52.00	Granodiorite	2.12	170	40,784	41,037	9,360,000	0.37	Columnar	Y
B-207	58.90	Granodiorite	2.11	169	34,459	34,654	NA	NA	Cone & Shear	N
B-207	80.63	Granodiorite	2.22	186	NA [1]	NA	NA	NA	NA	Y
B-207	121.30	Biotite Gneiss	2.11	167	37,211	37,435	9,500,000	0.31	Cone & Shear	N
B-207	159.15	Granodiorite	2.11	172	25,829	25,980	NA	NA	Cone & Shear	Y

Prepared By/Date, BAR 11/28/06
Checked By/Date, CET 11/28/06

Table F-3
SUMMARY OF ROCK CORE TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534

Source of Sample	Depth (ft)	Rock Type	Length to Diameter Ratio	Unit Wt. (pcf)	Unconfined Compressive Strength (psi)	Unconfined Compressive Strength (psi) (L/D Correction)	Modulus (psi)	Poisson's Ratio	Type of Break	Maximum Mineral Grain Size > Diameter/10 (Y or N)
B-215	54.25	Quartz Diorite	2.33	183	24,578	24,976	8,940,000	0.34	Cone & Shear	N
B-215	58.43	Quartz Diorite	2.33	182	18,644	18,942	NA	NA	Cone & Shear	N
B-215	66.45	Quartz Diorite	2.33	184	22,795	23,164	NA	NA	Cone & Shear	N
B-216	56.20	Biotite Amphibole Gneiss	2.22	184	15,322	15,495	NA	NA	Columnar	N
B-216	60.14	Biotite Amphibole Gneiss	2.22	192	25,838	26,126	8,520,000	0.20	Shear	N
B-217	76.05	Biotite Amphibole Gneiss	2.26	189	21,587	21,865	NA	NA	Cone	N
B-217	97.73	Biotite Amphibole Gneiss	2.24	179	33,847	34,262	10,970,000	0.34	Cone & Shear	N
B-217	104.85	Migmatite	2.31	180	32,087	32,577	NA	NA	Cone	Y
B-217	136.00	Quartz Diorite	2.31	182	20,760	21,069	NA	NA	Cone & Shear	Y
B-220	87.24	Hornblende Gneiss	2.25	193	20,133	20,385	NA	NA	Columnar	N
B-220	95.85	Hornblende Gneiss	2.28	191	20,711	20,997	12,310,000	0.23	Shear	N
B-301A	61.00	Granodiorite	2.20	188	31,666	31,991	NA	NA	Cone & Shear	N
B-301A	66.77	Granodiorite	2.20	171	24,115	24,364	8,110,000	0.31	Cone & Shear	Y
B-301A	76.72	Quartz Diorite	2.21	192	15,769	15,939	NA	NA	Columnar	N
B-301A	85.64	Quartz Diorite	2.19	191	25,084	25,322	NA	NA	Cone	N
B-301A	94.10	Quartz Diorite	2.20	190	22,789	23,026	9,130,000	0.29	Cone & Shear	N
B-301A	106.08	Quartz Diorite	2.21	182	24,938	25,206	NA	NA	Cone & Shear	N
B-301A	113.74	Quartz Diorite	2.21	184	27,770	28,068	NA	NA	Cone	N
B-301A	125.90	Migmatite	2.18	191	45,009	45,419	14,960,000	0.30	Crush	N
B-301A	156.23	Migmatite	2.19	171	22,941	23,168	NA	NA	Cone	Y
B-301A	195.18	Granodiorite	2.18	170	25,408	25,639	NA	NA	Cone & Shear	Y
B-301A	234.13	Quartz Diorite	2.19	179	23,704	23,940	8,200,000	0.28	Cone & Shear	N
B-301A	274.85	Quartz Diorite	2.19	183	29,359	29,639	NA	NA	Cone & Shear	N
B-301A	311.50	Migmatite/Quartz Diorite	2.19	167	27,306	27,573	NA	NA	Cone	Y
B-301A	349.10	Migmatite	2.20	168	28,813	29,102	7,570,000	0.35	Shear	N
B-305	61.00	Granodiorite	2.12	171	22,282	22,419	NA	NA	Cone & Shear	Y
B-305	62.90	Granodiorite	2.10	170	24,315	24,449	8,380,000	0.30	Cone & Shear	Y
B-305	73.50	Granodiorite Migmatite	2.11	189	41,021	41,252	NA	NA	Crush	N
B-305	95.23	Hornblende Gneiss	2.14	185	25,713	25,898	NA	NA	Cone & Shear	N
B-305	123.55	Amphibolite Schist	2.11	183	26,553	26,705	7,390,000	0.35	Columnar	N
B-305	165.15	Granodiorite	2.14	174	27,997	28,200	NA	NA	Cone & Shear	N
B-306	48.25	Granodiorite	2.10	172	22,091	22,210	NA	NA	Cone	Y
B-306	52.55	Quartz Diorite	2.11	188	31,079	31,257	9,370,000	0.28	Cone	Y
B-306	62.20	Hornblende Gneiss	2.11	191	37,616	37,833	NA	NA	Crush	N
B-306	76.43	Granodiorite	2.11	179	23,200	23,332	NA	NA	Cone & Shear	N
B-306	96.40	Quartz Diorite	2.12	188	26,164	26,324	NA	NA	Cone & Shear	N
B-306	123.47	Granodiorite	2.12	185	26,139	26,300	8,560,000	0.35	Cone & Shear	Y
B-306	152.19	Hornblende Gneiss	2.12	186	35,689	35,911	NA	NA	Cone	Y
B-306	187.60	Granodiorite	2.13	178	23,523	23,678	8,930,000	0.30	Cone & Shear	Y

Prepared By/Date, BAA 11/28/06
Checked By/Date, CES 11/28/06

Table F-3
SUMMARY OF ROCK CORE TESTS
SCE+G COL
MACTEC ENGINEERING AND CONSULTING, INC.
PROJECT # 6234-06-3534

Source of Sample	Depth (ft)	Rock Type	Length to Diameter Ratio	Unit Wt. (pcf)	Unconfined Compressive Strength (psi)	Unconfined Compressive Strength (psi) (L/D Correction)	Modulus (psi)	Poisson's Ratio	Type of Break	Maximum Mineral Grain Size > Diameter/10 (Y or N)
B-307	41.08	Biotite Gneiss	2.11	167	26,350	26,505	NA	NA	Crush	N
B-307	49.10	Granodiorite	2.10	170	22,267	22,384	8,390,000	0.29	Shear	Y
B-307	69.32	Migmatite	2.12	186	29,760	29,944	NA	NA	Cone & Shear	N
B-307	99.05	Migmatite	2.06	181	22,227	22,297	NA	NA	Cone & Shear	N
B-307	134.45	Granodiorite Migmatite	2.10	172	21,305	21,415	9,020,000	0.35	Cone & Shear	Y
B-307	171.71	Granodiorite Migmatite	2.11	185	15,149	15,237	NA	NA	Cone & Shear / Split	N
B-317	50.75	Migmatite	2.24	186	55,506	56,169	NA	NA	Cone/Crush	N
B-317	71.48	Amphibole Schist	2.22	189	15,834	16,012	11,730,000	0.40	Cone	N
B-317	90.44	Migmatite Gneiss	2.22	167	33,255	33,622	NA	NA	Crush	Y
B-317	132.79	Migmatite	2.26	186	26,959	27,306	NA	NA	Cone & Shear	N
B-320	52.08	Migmatite	1.99	181	NA (2)	NA	NA	NA	NA	N
B-320	61.88	Migmatite	2.26	181	28,872	29,249	NA	NA	Cone & Shear	N
B-320	77.68	Migmatite	2.13	187	27,465	27,649	NA	NA	Cone & Shear	N
B-320	100.43	Granodiorite Migmatite	2.18	170	28,966	29,239	NA	NA	Columnar	N
B-325	60.31	Granodiorite	2.30	172	21,804	22,120	NA	NA	Cone & Shear	Y
B-325	67.58	Migmatite	2.27	176	24,286	24,615	9,110,000	0.30	Cone & Shear	N

Note: (1) Specimen broke along mineral filled fracture during end preparation - specimen used for unit weight only.
(2) Specimen did not meet minimum length to diameter ratio for compressive strength - specimen used for unit weight only.

Table 7

Laboratory Results – Groundwater
Copy of Table G-1 From Attachment G
(See Next Page)

Table G-1: Laboratory Results - Groundwater
SCE&G V.C. Summer COL Site
MACTEC Project 6234-06-3534

Well	Date Sampled	TDS by EPA Method 160.1	Nitrite/Nitrate by EPA Method 353.1	Anions by EPA Method 300.0						Ammonia by EPA Method 350.1	Alkalinity By EPA Method 310.1
				Bromide	Chloride	Flouride	Sulfate	Nitrate	Nitrite		
OW-227	8/23/2006	71	0.36	< 0.25	2.2J	0.1	< 0.02	0.36	< 0.02	0.077	23
OW-620	8/23/2006	82	0.53	< 0.25	2.8J	0.085B	0.9	0.57	< 0.02	< 0.05	39
PARR-1	8/25/2006	84	0.31	< 0.25	9.3J	0.087B	6.3	0.30	< 0.02	0.16	23
OW-212	8/28/2006	59	0.38	< 0.25	2.3J	0.071B	1.1	0.33	< 0.02	< 0.05	31
OW-327	8/28/2006	47	0.21	< 0.25	2.9J	0.080B	3.2	0.18	< 0.02	< 0.05	22
OW-333	8/28/2006	117	0.55	< 0.25	4.1J	0.085B	1.5	1.1	< 0.02	< 0.05	29
OW-618	8/29/2006	140	0.30	< 0.25	9.6J	0.15	3.7	0.073	< 0.02	< 0.05	66
OW-627A	9/1/2006	178	0.16	< 0.25	7.4J	0.67	10.4	0.18	< 0.02	0.093	126
OW-205A	9/1/2006	96	0.26	0.16B	7.2J	0.15	16.8	0.28	< 0.02	0.05	44
OW-305A	9/1/2006	87	< 0.05	< 0.25	3.9J	0.25	7.4	0.038	< 0.02	< 0.05	48
Comparison Standards		**500**	**10**	**NL**	**250**	**2**	**250**	**10**	**1**	**30**	**NL**

Prepared By/ Date: MMD 11/16/06
Checked By/ Date: CES 11/16/06

Notes:
TDS - Total Dissolved Solids
J - Indicates analyte was detected within the method blank; actual value may be lower then reported value
B - Estimated result; reported result is below typical lab reporting limit but above lab method detction limit
PARR-1 is a surface water sample collected from the PARR Reservior
Results from Nitrite/Nitrate by EPA Method 353.1 presented from second analytical series dated September 28, 2006
All results reported in milligrams per liter (mg/L)
Comparison Standards taken from EPA *2006 Edition of the Drinking Water Standards and Health Advisories*, Drinking Water Standards and Secondary Drinking Water Regulations
NL - No listed standard for primary or secondary drinking water standards

List of Figures

SITE LOCATION

MACTEC

ENGINEERING & CONSULTING, INC.

CHARLOTTE, NORTH CAROLINA

SITE LOCATION

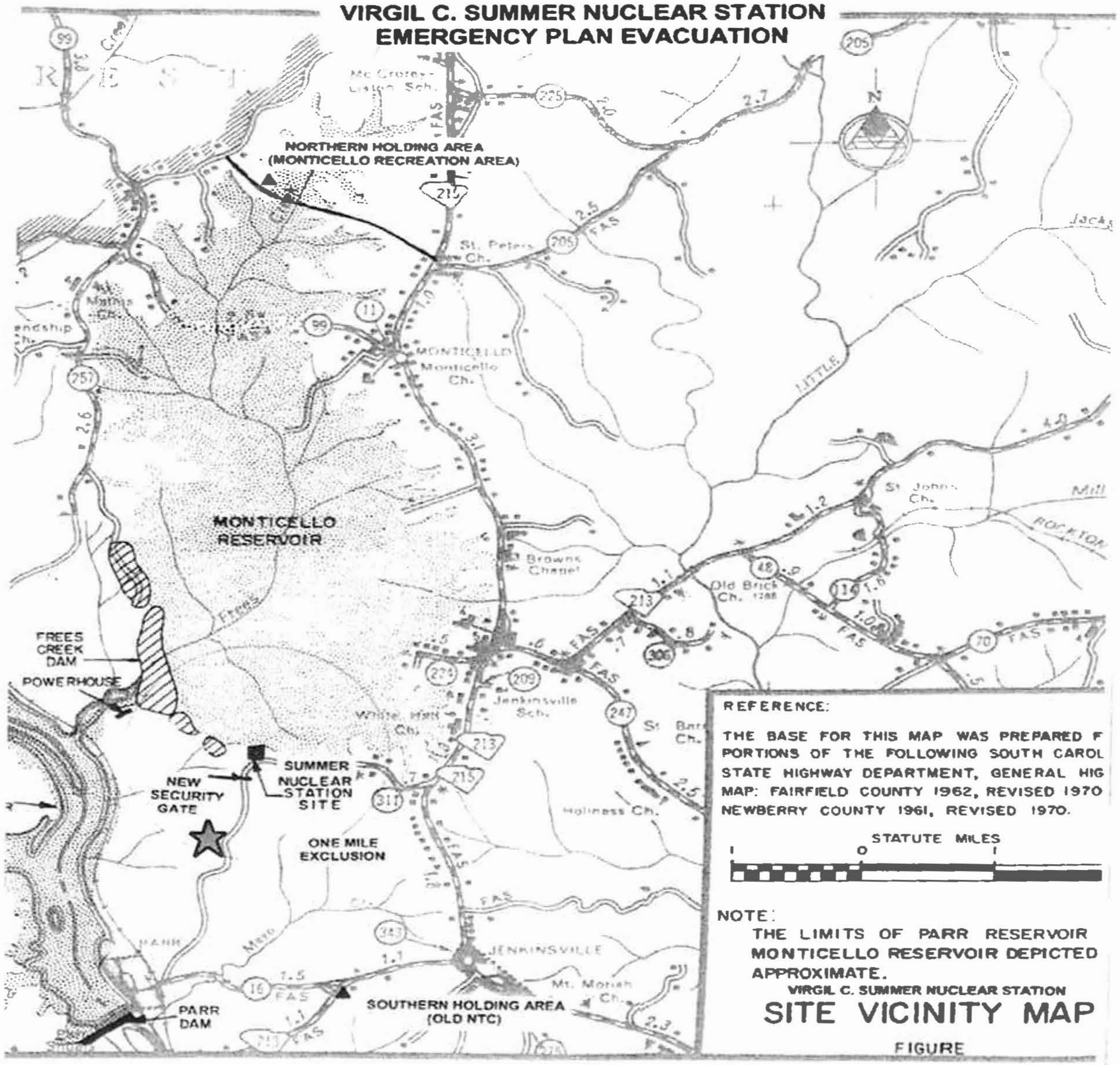
SCE&G COL PROJECT

V.C. SUMMER NUCLEAR PLANT

JENKINSVILLE, SOUTH CAROLINA

PREPARED BY	DATE	CHECKED CES	DATE 2-16-07	JOB NO. 6234-06-3534	FIGURE 1

P:\AutoCAD Drawings Only\Geotechnical\2006\6234-06-3534 SCE&G\SITE LOC MAP.dwg Fri, 16 Feb 2007 - 11:19am blailhengue



★ SITE LOCATION

MACTEC
ENGINEERING & CONSULTING, INC.
CHARLOTTE, NORTH CAROLINA

SITE VICINITY MAP
SCE&G COL PROJECT
V.C. SUMMER NUCLEAR PLANT
JENKINSVILLE, SOUTH CAROLINA

JOB NO.	6234-06-3534	FIGURE	2

P:\AutoCAD Drawings Only\Geotechnical\2006\6234-06-3534 SCE&G\vicinitymap.dwg Fri, 16 Feb 2007 - 1:53pm blaihengue

List of Attachments (Submitted Under Separate Covers on Various Dates)

Attachment	
A	Survey Data and Test Locations
B	Geotechnical Boring Logs, (Soil and Rock Logs), Geotechnical Test Pit Logs, and SPT Energy Ratio Measurements
C	Observation Well Logs and Development Records, Slug and Packer Test Data
D	Cone Penetrometer Test Results
E	Geophysical Test Data (Downhole), Field Electrical Resistivity
F	Laboratory Testing Data (Geotechnical)
G	Field and Laboratory Testing (Groundwater)
H	Laboratory Testing Data (K_d, Distribution Coefficient)
I	Resonant Column Torsional Shear (RCTS) Test Results