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July 18, 2008

Mr. Joe Cowhill
Project Manager
Bechtel Power Corporation
5275 Westview Drive
Frederick, MD 21703-8306

Subject: **Final Data Report Transmittal - Revision 0**
Geotechnical Exploration and Testing
Exelon Texas COL Project
Cooling Basin
Victoria County, Texas
MACTEC Project No. 6468-07-1777

Dear Mr. Cowhill:

MACTEC Engineering and Consulting, Inc., is pleased to submit the Final Data Report, Revision 0, for geotechnical exploration and laboratory testing associated with the Cooling Basin of the Exelon Texas COL Project located in Victoria County, Texas.

Please do not hesitate to contact us if you have any questions or if we may be of further service.

Sincerely,

MACTEC Engineering and Consulting, Inc.

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COVER SHEET

FINAL DATA REPORT REV 0

GEOTECHNCIAL EXPLORATION AND TESTING
EXELON TEXAS COL PROJECT
VICTORIA COUNTY, TEXAS
COOLING BASIN

July 18, 2008

Prepared By:

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

MACTEC PROJECT No. 6468-07-1777

Prepared For:

Bechtel Power Corporation
Subcontract No. 25352-102-HC4-CY00-00001

FINAL DATA REPORT - REVISION 0
GEOTECHNICAL EXPLORATION AND TESTING
EXELON TEXAS COL PROJECT – VICTORIA COUNTY
COOLING BASIN
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SECTION 1
OVERVIEW

1.1 Introduction

MACTEC Engineering and Consulting, Inc. (MACTEC) was retained by Bechtel Power Corporation (Bechtel) to conduct the subsurface investigation and laboratory testing program to obtain information on subsurface materials and conditions for use in the preparation of the Combined Operating License (COL) Application for the Exelon Victoria County Site. The COL application, to be prepared by others, will be submitted to the U.S. Nuclear Regulatory Commission (NRC) for approval to locate a future nuclear electric power generation facility at the existing Victoria County Site. This report covers activities associated with the investigation of the Cooling Basin area at the Victoria County Site. A report covering activities associated with the Power Block area is presented under separate cover. A site location map is included as Figure 1.

MACTEC executed its services in accordance with Bechtel Subcontract No. 25352-102-HC4-CY00-00001. The field work commenced on November 5, 2007 and was completed on February 21, 2008.

The Scope of Work was defined in Exhibit "D" of the Bechtel Subcontract and the technical requirements were defined in Bechtel Specification 25352-102-3PS-CY00-00001, Revision 003, dated 10/31/07. The scope of work is briefly described below:

- Preparing and submitting a Quality Assurance Project Document, Work Plan and Health and Safety Plan.
- Obtain permits necessary for performing the work.
- Furnishing all the supervision, labor, equipment, tools, supplies, and materials necessary to perform the specified work at the locations specified by Bechtel.
- Providing geotechnical engineers and/or geologists in the field under the direction of qualified geotechnical engineers and/or geologists with the experience in geotechnical investigations to oversee and log the investigation work.
- Providing a site superintendent responsible for oversight of all required field activities.
- Providing Quality Assurance (QA) observation of the field and laboratory work activities and submitting QA records.
- Locating work items by survey methods.
- Performing utility location survey prior to starting work
- Providing water to work areas for drilling and testing
- Performing Standard Penetration Tests (SPT) and obtaining samples using a split spoon sampler.
- Performing SPT energy measurements..
- Obtaining undisturbed samples using thin walled sampler or Pitcher Barrel sampler.
- Collecting, labeling and transporting soil samples to a designated sample storage area.
- Transporting designated samples to appropriate laboratories for testing purposes.
- Backfilling drilled holes with cement/bentonite grout using the tremie method.
- Excavating and backfilling test pits and obtaining bulk samples.
- Installing ground water observation wells, performing field permeability tests, aquifer pumping test, and obtaining groundwater samples.

- Performing borehole permeameter testing in the shallow soils using the Guelph permeameter.
- Performing electrical Cone Penetrometer Tests (CPT) with down-hole seismic tests and porewater dissipation tests at selected locations.
- Down-hole geophysical logging.
- Performing down-hole acoustic televiewer logging.
- Performing suspension P-S logging
- Restoring the work areas.
- Performing laboratory testing on soil samples.
- Preparing a Data Report containing the data generated by the subsurface investigation and laboratory testing activities.
- Performing all work under MACTEC's approved Safety Program.

Sampling and testing related to the geotechnical exploration are considered to be tasks that could affect design, construction or operation of safety-related systems, structures and components. This work in performed under a Quality Assurance program that meets the requirements of 10 CRF Part 50 Appendix B and 10 CFR 21 (Reporting of Defects and Noncompliance)

This Data Report generally describes the field and laboratory testing methods and presents the laboratory testing results in the Cooling Basin area.

1.2 Personnel

MACTEC completed field work for this project under the direction of Bechtel's Site Coordinator, Mr. Allen Shaw. Site technical support was provided by Mr. Lawrence (Larry) Young (Bechtel) and Mr. Garrett Day (Bechtel). Bechtel was contracted by Exelon to provide technical and general oversight support to Exelon.

Primary MACTEC personnel and their responsibilities were as follows:

Stephen J. Criscenzo	Chief Engineer
Kathryn A.White, P.E.	Project Principal Engineer
Scott Auger	Project Manager
John Martin	Quality Assurance Representative
Chris Bruce	Site Superintendent, Report Preparation
Shawn Lehman	Site Coordinator
Daniel Haug	Lead Geologist
Daniel Atkinson	Project Scientist
Lise Bisson	Rig Geologist
Chris Gandy	Rig Geologist
Mandel Harvey	Rig Geologist
Jason Jarvis	Rig Geologist
Harry Lyatuu	Rig Geologist
Johnny Liles	Rig Geologist
Jeff Moore	Rig Geologist
Ammi Osori	Rig Geologist
Kyla Rudd	Project Scientist
Kimberly Charles Smith	Project Scientist
Alex Taylor	Rig Geologist
Bryan Taylor	Rig Geologist

Jason Fox	Site Utility Survey
Lee Brian Johnson	Laboratory Services Manager - Raleigh
Jianren Wang	Laboratory Services Manager - Atlanta
Chris Pruneau	Report Preparation
Walker Jones	Report Preparation
William Grimes	Report Preparation
Steven Copley	Report Preparation
Bill Deobald	Report Preparation
Zeynep Ulker	Report Preparation

The organizations that conducted on-site work or laboratory testing of samples as part of this effort are listed in Table 1.1.

1.3 Organization of Report

The organization of this report consists of a transmittal letter, table of contents, narrative text, tables, figures and appendices. The appendix documents containing project data submittals are further organized as follows:

Appendix A – Survey Data (Included in Final Data Report Power Block Rev.0)

Appendix B – Geotechnical Field Data
- Boring Logs
- Test Pit Logs
- SPT Energy Measurement Reports (Included in Final Data Report Power Block Rev. 0)

Appendix C – Cone Penetrometer Test Results

Appendix D – Geophysical Test Data (Included in Final Data Report Power Block Rev.0)

Appendix E – Laboratory Test Data
- Index Test Data – Split Spoon Samples
- Index and Compaction Test Data – Test Pits
- Index Test Data – Undisturbed Samples
- Strength Test Data – Triaxial Compression, Direct Shear, Direct Simple Shear
- Consolidation Test Data – Load Controlled, Constant Rate of Strain
- Hydraulic Conductivity Test Data
- Index Test Data – Composite Samples
- Strength Test Data –Triaxial Compression, Direct Simple Shear – Composite Soils
- Consolidation Test Data – Load Controlled – Composite Soils

Appendix F – Resonant Column Torsional Shear Tests on Composite Soils

Appendix G – Groundwater Data
- Observation Well Records
- Well Record Sampling Sheets
- Laboratory Test Report
- Slug Test Data
- Aquifer Pump Test Data Forms
- Borehole Permeameter Data Forms

1.4 Quality Assurance

Quality-related activities conducted by MACTEC and its subcontractors during the work presented in this report 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 the requirements of 10 CFR 50 Appendix B.

SECTION 2
TEST METHODS

2.1 Surveying

The surveying in the cooling basin area was conducted in two phases. MACTEC completed the first phase, marking test locations by referencing initial coordinates provided by Bechtel, listed on Drawing No. 000-CY-0010-00002 Rev. 2 issued for use on November 19, 2007. MACTEC located test locations in the field using mapping-grade Trimble GEOXT GPS equipment. Wooden stakes tied with flagging and marked with the test-location designator were used to mark the surveyed locations. Prior to the start of testing, some test locations were relocated due to site conditions (utilities, trees, topography) with concurrence of Bechtel personnel. Other borings were located at offsets from the staked location to accommodate additional testing/sampling at a given location, for example undisturbed sampling and/or geophysical testing. MACTEC's contract surveyor, SURVCON INC. (SURVCON) of Houston, Texas, conducted the second phase of surveying. SURVCON captured as-built locations and ground surface elevations of actual test locations after completion of testing using Real Time Kinematic-Global Positioning Satellite (RTK-GPS) techniques.

SURVCON used a Leica GPS System 1200 to collect field data and observations. At project start, SURVCON established two control points at the site to serve as reference for the surveys. To achieve project accuracy requirements, three observations were made on each of the actual test locations for the second-phase as-built survey in the cooling basin area. The independent observations captured at each test location were subsequently processed through Leica Geomatics Office software to determine final coordinate and elevation values. The survey data was complied by Adam Salazar, Land Surveyor, Texas License No. 5965.

It should be noted that the survey reports included in previous draft report submittals for this project may list independent, unprocessed observations for any given test location. SURVCON has been made aware of the issue to insure the integrity of the data included in this and subsequent reports.

The as-built survey locations are provided to Bechtel for their use in creating an as-built drawing of the exploration. The as-built survey locations were also used as input to final boring logs and other tables reporting locations. A complete copy of the surveyor's report can be found in Appendix A of the Final Data Report Power Block dated July 10, 2008. This report includes as-built survey data for both the Power Block and Cooling Basin test locations.

2.2 Utility Location

Jason Fox of MACTEC used preliminary survey locations and physical features to mark the locations planned for borings, wells, CPT probes and test pits. These preliminary locations were provided to Bechtel for utility clearance.

MACTEC personnel conducted an inductive sweep using a Metrotech 810 and conducted a 60 kilohertz passive search using a Subsite Pipe and Cable Locator within a 10-ft radius surrounding each boring location and or boring offset. The intent was to locate any metallic underground utilities or energized lines that would pose a risk to drilling personnel. In addition to the electromagnetic (EM) survey, Texas One Call was also notified at least one week in advance of drilling activities. Bechtel identified several large underground oil and gas transmissions lines in the Cooling basin area on drawing number 000-CY-0010-00002 Revision 0 through Revision 3.

Bechtel also identified a buried telephone line which runs from the southwestern corner of the site along the main north-south road to the Ranch houses on the north eastern side of the site.

2.3 Drilling Equipment/Methods

MACTEC mobilized the following drilling equipment to the site:

Hammer Serial Number	Driller	Drill Rig	Carrier Type	Owner	Auto Hammer	Rig Use
MAC-02	D. White	CME 55 LC	ATV	MACTEC	Yes	SPT
MAC-09	T. Warren	CME 75	Truck	MACTEC	Yes	SPT, UD
NA	A. Polacios	Failing 1500	Truck	Best	No	Wells, UD
MAC-12	J. Warren	CME 45	Track	MACTEC	Yes	STP
263048*	G. Bray	CME 750	ATV	EEI	Yes	SPT, UD
MAC-03	L. Carter	CME 550	ATV	MACTEC	Yes	SPT
MAC-13	D. Rhodes	CME 45	Track	MACTEC	Yes	SPT
NA	A. Fonseca	Fugro CPT	Track	MACTEC	No	CPT
MAC-05	R. Banks	CME 550-X	ATV	MACTEC	Yes	SPT, UD
MAC-11	D. Nalls	CME 75	Truck	EEI	Yes	SPT, UD
MAC-10	R. White	CME 85	Truck	Miller	Yes	SPT, UD

* Drill rig serial number was used as hammer serial number.

Each rig also had at least one support truck used to haul materials. In addition, one rubber-tired highway-type water tanker trucks, ATV and track-mounted water buggies were utilized to haul water from water storage tanks staged at the site. Site water was obtained from a water production well located adjacent to the command and support trailers.

A Caterpillar D-8 bulldozer was used to as needed to support drilling activities in the Cooling Basin area. The bulldozer was also used to restore drill sites to near pre-drilling conditions (smooth ruts and tailing piles).

Borings were advanced in soil using mud rotary wash drilling techniques to a predetermined termination depth. Due to the use of rotary wash drilling techniques which resulted in the development of a natural or enhanced (bentonite) mud cake on the side walls of the boring, water levels during drilling could not be determined. All rigs utilized on this project for the collection of standard penetration testing (SPT) soil samples used automatic hammers. SPT soil samples from the geotechnical borings were obtained at 2.5-foot and 5-foot, 10-foot and 20-foot intervals as described in Section 2.5. A summary of boring log information is presented in Table 2.1. Geotechnical Field Data including boring logs are included in Appendix B.

In borings where SPT measurements were collected, only side discharge type bits were used. Bit size varied depending on rod diameter, sampling type and depth. Flush jointed A-rods (AW, and AWJ) were used for any SPT boring that was advanced to less than 200 feet below ground surface (bgs). Flush jointed N-rods (NW, NWJ and Mayhew Junior), were used (from ground surface to the total depth of the boring) for any SPT boring that was advanced deeper than 200 feet bgs.

At selected locations and following review of the adjacent geotechnical borings by MACTEC and Bechtel, two observation wells were installed by rotary wash drilling methods with the exception of the aquifer pumping test locations TW-2359 and TW-2320 where a cluster of five wells were installed (pump well and four observation wells). Each well in the Cooling Basin area consisted of PVC screen and riser pipe, sand filter pack, bentonite chips or pellets and cement bentonite grout with the exception of TW-2320. The screen for TW-2320 consisted of six-inch stainless steel wrapped wire (see Section 5 for additional details). Protective steel well covers and concrete pads were placed at the surface. Observation well borings and installation details are described Section 5.1 of this report.

Cone penetration testing (CPT) was conducted by Fugro Consultants, Inc., a subcontractor to MACTEC. Fugro used a purpose-built 25-ton capacity truck-mounted unit and a 15-ton capacity ATV track-mounted cone penetration unit to complete the work. Each probe was advanced to the assigned termination depth or to cone refusal, which was the limit of the pushing capacity of the rig. At some locations testing was prematurely terminated due to technical difficulties (such as excessive cone deflection or equipment malfunction) and retests were performed as necessary in adjacent soundings. Seismic and pore pressure dissipation testing were completed in selected CPT's and intervals determined by Bechtel.

The borings and the CPT probe locations were filled using a cement-bentonite grout prior to demobilizing from the site. The borings were grouted from the bottom of the boring by pumping the grout through a tremie pipe. A grout mixture was used to backfill the borings per the Specification Section 5.12. A stake or other marker was placed at each completed boring location for later survey use.

2.4 SPT Energy Measurements

SPT energy measurements were conducted for each of the drill rigs performing SPT soil sampling. Energy measurements were recorded during SPT sampling at the depth intervals shown in Attachment B. 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 drill rod two feet long and the same size as the drill rod used to advance the boring 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 conducted 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 D 4633-05. 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
dt = time differential (integral taken with respect to time)

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 energy transfer ratio (ETR).

The average ETR measured for each rig used at the site ranged from 72.5% to 90.7% of the theoretical potential energy. These ETR values are within the range of typical values for automatic hammers. The ETR values (as percent of the theoretical value) are shown in Attachment B.

2.5 Sampling in Geotechnical Borings

2.5.1 Standard Penetration Test Sampling

SPT sampling in the geotechnical borings was generally conducted on 2.5-foot centers from the ground surface to a depth of 15 feet. The SPT sampling interval below 15 feet was five feet to a depth of 100 feet. The SPT sampling interval from 100 feet to 200 feet was 10 feet. From 200 feet to 600 feet, the sampling interval was 20 feet. The equipment and methods are described in ASTM D 1586-99. The split barrel sampler was typically driven 18 inches in soil with blows recorded for each six-inch interval of penetration. The weight of the hammers used at the site ranged from 138.3 to 140.2 pounds, meeting the ASTM requirements. In very dense or hard soils, SPT sampling was terminated if 50 blows were recorded for a six-inch, or less, interval and the actual penetration recorded, (e.g., 50 blows / 0.3 feet). At selected locations, the sampler was over-driven to collect additional sample.

The split barrel sampler was opened at the drill site and the recovered materials were visually described, classified, and photographed by MACTEC's rig geologist or engineer. A selected portion of the sample (typically 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 secure storage trailer at the end of each work day.

2.5.2 Undisturbed Soil Sampling

Undisturbed soil samples were obtained as directed by Bechtel, using a 3-inch thin-walled Shelby tube sampler in accordance with ASTM D 1587-00 or Pitcher barrel sampler (USACE EM 1110-1-1804). Undisturbed soil samples were collected in the Cooling Basin area from borings B-2302 UD, B-2204 UD, B-2319 UD, B-2321 UD, B-2352 UD and B-2359 UD.

A Pitcher tube sampler was used for collection of undisturbed soil samples at depth intervals selected by Bechtel or when subsurface material was anticipated to be too dense or hard to allow satisfactory samples to be recovered by pushing the Shelby tube sampler. The Pitcher tube sampler is a rotary sampler that drills the 3-inch tube into the subsurface material.

Some of the Shelby tube samplers were deformed during the sampling process. These samples were retained, capped and were noted as possibly disturbed samples. The undisturbed samples were sealed at the top and bottom against moisture loss, labeled, and kept in an upright condition.

Disturbed and undisturbed soil samples were transported to the climate-controlled on-site storage trailer following ASTM D 4220-95(2000).

2.6 Boring Logs

The soil descriptions on the boring logs in Appendix B.1 are based on the field descriptions (ASTM D 2488-06) by the rig geologist or engineer, modified according to ASTM D 2487-00 where lab test results are available. Note that the strata may have been modified on logs for test locations where more than one boring was performed. For example, field observations and laboratory test results for a geotechnical boring and an adjacent undisturbed sample boring may have been shared for the purpose of utilizing all available information and to make the strata similar on both logs. In addition to the logs of borings drilled for the cooling basin, this report includes logs for borings B-01 through B-10. Borings B-01 through B-10 are geotechnical borings that were drilled to establish screen intervals for a network of groundwater monitoring wells installed when the site was considered a second option to the Matagorda County site. The boring logs in Appendix B.1 were prepared using Version 8 of the computer program "gINT".

2.7 Sampling in Geotechnical Test Pits

A rubber-tired backhoe was used to excavate and then to backfill the shallow test pits used for soil sampling purposes. The backfilled soil was loosely compacted and the surface smoothed to surrounding ground level.

Test pits were excavated at twelve locations identified by Bechtel. 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. Small portions of the samples were placed in glass jars and sealed for moisture retention. The backhoe was used to backfill the test pits using the excavated materials. The rig geologist placed a stake at the test pit location 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 ASTM D 2488-06. The surveyed locations of the test pits are included in Appendix A. The Geotechnical Test Pit Logs are included in Appendix B.

2.8 Cone Penetrometer Testing

Locations for 24 Cone Penetrometer Tests (CPT) were included in the original scope of work for this project. The locations were designated as C-2301 through C-2328 (with the exception of C-2320, C-2325, C-2326 and C-2327 where soundings were not conducted). Specified probe depths were for penetrations of 100 feet below ground surface or to refusal. MACTEC personnel staked the probes at the specified locations; however, due to presence of roads or underground utilities, some of the probes were relocated. The test locations were designated/approved by Bechtel and cleared by MACTEC utility clearance personnel prior to pushing. Results for all CPT testing are included in Appendix C.

Seismic testing was completed at intervals of approximately five feet at locations C-2301s, C-2303s and C-2323s. The seismic test attempted at location C-2321s did not generate valid data and is not reported. Pore pressure dissipation tests were completed in C-2303s, C-2311, C-2311A, C-2312, C-2323s. All testing was done in accordance with the Technical Specification and ASTM D 5778-95 (2000).

The CPT tests were conducted using 15 cm^2 peizocones or seismic cones with the piezo transducer mounted in the U2 position (between the tip and sleeve). At locations C-2301, C-

2311, C-2321 and C-2323 multiple soundings were conducted due to difficult local soil conditions or technical issues. Repeat soundings have been denoted using name suffixes (i.e. "A") and comments regarding termination of the testing have been noted in Appendix C.

2.9 Geophysical Down-hole Testing

Down-hole geophysical testing and logging was performed in nine borings in the cooling basin area, including B-11, B-12, B-2301, B-2302, B-2303, B-2304, B-2305, B-2306 and B-2307. With the exception of boring B-11, B-12, and B-2305, where acoustic televiewer logging was not performed, the complete suite of tests listed below were performed in each boring. GEOVision, a MACTEC subcontractor, conducted the down-hole geophysical testing in accordance with ASTM D 5753. The test results are found in the report from GEOVision contained in Appendix D of MACTEC's Final Data Report Power Block dated July 10, 2008 (a tab for the GEOVision report redirecting the reader to the above referenced report is included in this report for completeness as Appendix D). The GEOVision report consists of a text and graphical volume and an electronic set of data and charts presented on CD. The down-hole geophysical logs performed in the selected borings are described below.

2.9.1 Natural Gamma

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

2.9.2 Long and Short Normal Resistivity/Spontaneous Potential

Normal-resistivity logs record the electrical resistivity of the borehole environment and surrounding soil and water as measured by variably spaced potential electrodes on the logging probe. Typical spacing for potential electrodes is 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.

2.9.3 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.

2.9.4 Borehole Acoustic Televiewer Logging

Televiewer logging was conducted in accordance with GEOVison procedures as included in the MACTEC Work Plan. The acoustic televiewer determines bore-hole inclination and deviation from vertical by measuring 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.

2.9.5 Suspension P-S Velocity Logging

Suspension P-S velocity logging was conducted in accordance with GEOVision procedures as contained in the MACTEC Work Plan. Measurements of compression (P) and shear (S) wave velocity were made at 1.6-foot intervals.

SECTION 3
SAMPLE STORAGE

Consistent with MACTEC's QAPD Requirements, an on-site sample storage facility was established. The sample storage facility was a lockable climate controlled sample storage trailer. The trailer was a ground mounted 40-foot long by 8-foot wide Mobile-Mini Open Bay Security Office with high security door system and exterior security bars over each window. Racks were assembled to provide secure storage of undisturbed samples.

Samples were transported daily from the field to the sample storage warehouse by the rig geologists/engineers. The samples were transported in accordance with ASTM D 4220-95(2000). SPT samples were transported in their compartmentalized cardboard boxes, each labeled to show the contents therein. The bulk test pit samples were sealed in 5-gallon plastic buckets. The UD samples were sealed and placed upright in the UD sample racks.

A chain-of-custody form was completed for samples removed from the facility.

SECTION 4
LABORATORY TESTING – GEOTECHNICAL

Soil laboratory testing was conducted on approximately 182 disturbed (split-spoon), 52 undisturbed (tube) samples, 47 jar samples, 19 bulk samples, and two composite bulk samples obtained during the investigation. The testing was performed in accordance with the current ASTM standards or other standards where applicable. The samples to be tested and the tests to be performed were selected by Bechtel engineers. Bechtel provided the following Geotechnical Laboratory Test Assignment Sheets for Cooling Basin related testing:

- Assignment 10 – January 23, 2008
- Assignment 12 – February 11, 2008
- Assignment 14 Revised – February 20, 2008 (one sample)
- Assignment 15 Revised – March 26, 2008

The soil testing was conducted in MACTEC's laboratories in Raleigh, North Carolina and Atlanta, Georgia. The constant rate of strain consolidation (CRS) and Resonant Column Torsional Shear (RCTS) testing of composite bulk samples and some of the strength tests (triaxial compression and direct simple shear), were conducted by Fugro Consultants Laboratory in Houston, Texas.

Assignment 10 consisted of index testing of SPT jar samples from six borings. The testing was performed in MACTEC's Raleigh, North Carolina laboratory.

Assignment 12 consisted of index testing on SPT jar samples; Index and strength testing (triaxial compression, direct shear, direct simple shear, hydraulic conductivity and consolidation) on undisturbed samples; and index and moisture-density relationship (modified Proctor) testing on bulk samples obtained from test pits. Testing of undisturbed tube samples were performed in the MACTEC Atlanta, Georgia laboratory, and in the Fugro laboratory in Houston, Texas. The remaining tests from Assignment 12 were performed in the Raleigh laboratory. Assignment 14 contained only one sample from the Cooling Basin area (B-2302UD UD 19) which was to be tested for index, strength (direct simple shear) and consolidation (constant rate of strain) properties.

Assignment 15 addressed index, moisture-density testing (modified Proctor), and strength testing (triaxial, direct simple shear, consolidation and RCTS) of recompacted composite bulk samples representative of Cooling Basin embankment fill, collected from two test pits selected by Bechtel. Soil mixing, initial preparation and determination of compaction and index test values of the two composite bulk samples were performed in the MACTEC Raleigh laboratory. Other tests including undrained triaxial compression, consolidation, direct simple shear (DSS) and all resonant-column torsional shear (RCTS) tests, with the exception of one sample, were conducted at Fugro Consultants laboratory. The excluded RCTS sample was sent to and tested at the University of Texas.

Occasionally, an assigned sample was damaged during collection, or the quantity of material was insufficient to perform the assigned testing. These occurrences were brought to the attention of Bechtel, and either a replacement sample was assigned, or the testing was cancelled altogether.

For the direct simple shear and constant rate of strain tests, it should be noted that the change in vertical stress is interpreted as change in pore water pressure. Therefore, a graph of pore pressure versus shear strain or axial stress is not included in test report results.

The tests that were assigned and performed, identified by their ASTM standard, are shown in the following sections.

4.1 Identification Tests

- Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass - ASTM D 2216-05
- Specific Gravity of Soil Solids by Water Pycnometer - ASTM D 854-06
- Particle-Size Analysis of Soils - ASTM D 422-63 (2002)e1 (for analysis including hydrometer)
- Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis - ASTM D 6913-(2004)e1 (for analysis not including hydrometer)
- Liquid Limit, Plastic Limit, and Plasticity Index of Soils - ASTM D 4318-05
- Moisture, Ash, and Organic Matter of Peat and Other Organic Soils - ASTM D 2974-07a
- Unit Weight (sections 5.7-5.9, 8.1 and 11.3.2 of ASTM D 5084-03)
- Classification of Soils for Engineering Purposes (Unified Soil Classification System) – ASTM D 2487-06
- Description and Identification of Soils (Visual-Manual Procedure) – ASTM D 2488-06
- Laboratory Compaction Characteristics of Soil Using Modified Effort – ASTM D 1557-02el

4.2 Shear Strength Tests

- Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils - ASTM D 2850-03a
- Consolidated-Undrained Triaxial Compression Test on Cohesive Soils – ASTM D 4767-04
- Direct Shear Tests of Soils Under Consolidated Drained Conditions – ASTM D 3080-04
- Consolidated-Undrained Direct Simple Shear Testing of Cohesive Soils – ASTM D 6528-07

4.3 Consolidation Tests

- One-Dimensional Consolidation Properties of Soils using Incremental Loading - ASTM D 2435-04
- One-Dimensional Consolidation Properties of Saturated Cohesive Soil Using Controlled-Strain Loading – ASTM D 4186-06

4.4 Permeability Tests

- Permeability of Granular Soils (Constant Head) – ASTM 2434-68 (2006)
- Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter – ASTM D 5084-03 Methods C and F

4.5 Modulus and Damping Tests

- Test Procedures and Calibration Documentation Associated with the RCTS and URC Tests at the University of Texas at Austin, DCN: UTSD RCTS GR06-4, April 25, 2006, Geotechnical Engineering Center, University of Texas, Austin, Texas.

4.6 Reporting

Except for the RCTS tests, the geotechnical laboratory test reports, consisting of individual test data and results sheets as required by the testing standard, are contained in Appendix E. Summaries of the test results are shown in Tables 4.1 through 4.12.

The Resonant Column Torsional Shear (RCTS) test reports on composite soils have been reviewed and approved by Dr. K. H. Stokoe and are presented in Appendix F. The soil classification tests on the two composite soils have been included in Table 4.2 of this report.

SECTION 5
WATER SAMPLING, FIELD AND LABORATORY TESTING

5.1 Well Installation

BEST Drilling and Lewis Environmental Drilling, MACTEC's contractors, installed 20 observation well pairs, one well in which to conduct an aquifer pump test (test well), and four observation wells around the test well, within the cooling basin portion of the site as part of this project. Additionally, one test well (TW-2359L) and four associated observation wells were installed just outside of the cooling basin. Each well pair consisted of an observation well screened in an upper sand unit (well identification contains the prefix "U") and an observation well screened in a lower sand unit (well identification contains the prefix "L"). The observation wells associated with test well TW-2320U were all installed within the upper sand unit, while one of the observation wells associated with test well TW-2359 was installed in the upper sand unit. The remaining three observation wells associated with TW-2359L were installed within the lower sand unit. The wells were installed per the Technical Specification. The well-construction details are shown in Observation Well Installation Records in Appendix G. Pertinent information for the observation wells installed in the cooling basin portion of the site is shown in Table 5.1.

The observation well depths and screen intervals were specified by Bechtel's hydrogeologist after review of adjacent borehole records, and geophysical logs where appropriate. Borings for the observation wells were advanced using rotary drilling techniques with water (no bentonite was used) with a nominal 6-inch outside diameter. Borings for the two test wells were advanced using mud rotary drilling techniques (no bentonite was used) with a nominal 10-inch outside diameter. MACTEC did not collect soil samples from the boreholes for the wells because these boreholes were adjacent to geotechnical borings, from which samples were collected.

Boring depths shown on the borehole logs indicate the total depth drilled and sampled. Due to small amounts of drill spoil at the base of the drill bit, or due to the sampler advancing beyond the augered depth, the total depth shown on the borehole log may be slightly greater than the well depth reported on the companion well installation record.

Upon reaching the designated depth for a well, slotted PVC casing connected to solid PVC riser was set, and a sand pack and bentonite seal were placed in the wells. A cement/bentonite grout mixture was emplaced from the top of the bentonite seal to the ground surface in each borehole by the tremie method. The drilling contractor used the grout mix specified in Section 4.12 of the Technical Specification.

The wells were capped with a lockable steel well cover extending approximately two feet above grade. Per the Technical Specification, two seep holes were installed in each of the protective outer casings to allow standing water between the protective casing and PVC well casing to drain. A concrete pad, two feet square and six inches thick, was also placed around each well cover as per the Technical Specification.

After well installation activities were completed, Survcon Inc., MACTEC's survey contractor, determined the location, marked top of well casing elevation, and the elevation of the concrete pad installed around the well. These data are included on the well installation records. The water-depth measurements are referenced to the marked point on top of the PVC casing. The elevation of the top of casing was also used along with measurements of the well sections to calculate elevations for the well monitoring interval.

5.2 Water-Level Measurements

MACTEC representatives measured the depth to the water table in each well at various times related to development, slug testing, aquifer pump testing, and water quality sampling using an electric water-level meter and referenced to the mark on the top of the PVC casing. These water levels are shown on the various field forms in Appendix G.

5.3 Well Development

After well installation was completed, wells were developed by the well installation contractor using air-lifting techniques, in accordance with Section 5.3.6 of the Technical Specification. A minimum of five, saturated borehole volumes were removed from each well during the development process. Water was removed from each well until it was relatively clear and sediment free, in accordance with the Technical Specification. During the development process, the well contractor cycled the air on and off to create a surging effect. The wells were considered developed when the pumped water was relatively clear and free of suspended sediment.

5.4 Well Purging and Sampling

Each well was purged and sampled using a submersible pump that was set approximately one foot above the bottom of the well. Each well was purged until field-measured indicator parameters of water quality "stabilized" and until at least three well volumes were purged. Using a YSI 650 equipped with a flow-through cell and a HACH turbidity meter, MACTEC measured the following field-indicator parameters in accordance with ASTM D 6452-99 (2005):

- Temperature
- pH
- Electrical conductivity (specific conductance)
- Turbidity
- Oxidation-reduction potential (redox)
- Dissolved oxygen

Stabilization of field parameters was based on three consecutive measurements showing values with the following criteria, made at intervals not less than one-half well volume or five minutes, whichever is greater, unless directed otherwise by Bechtel:

- pH: ±0.1 pH units
- Dissolved oxygen: ±0.3 mg/liter
- Electrical conductivity: ±3 percent
- Oxidation-reduction potential: ±10 mv
- Turbidity ±1 nephelometric turbidity unit (NTU), or ±10 percent if greater than 10 NTUs

The pumping rate during field-indicator parameter measurement collection and sample collection was kept low enough to minimize sample turbidity, sample aeration, bubble formation, and turbulent filling of the sample containers. The purging method used was consistent with "purging based on fixed volume combined with indicator parameter stabilization" as described in ASTM D 6452-99 (2005). In accordance with Section 5.5.4 of the Technical Specification, the final field-indicator parameter readings are summarized in Table 5.2. Well sampling record sheets are included in Appendix G.

5.5 Laboratory Testing

MACTEC filled the laboratory-provided sample containers with groundwater directly from the tubing attached to the pump. The containers were placed in a cooler with ice, and the cooler was delivered by overnight courier to the STL Laboratories, Inc. (TestAmerica) in Earth City, Missouri under chain-of-custody. STL tested the groundwater samples for the following parameters according to the current methods cited in "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020 using the methods cited:

- Total dissolved solids -- EPA Method 160.1
- Inorganic ions (bromide, chloride, fluoride, sulfate) -- EPA Method 300.0
- Cations (calcium, iron, magnesium, manganese, potassium, silica, silicon, and sodium) -- EPA 6020C
- Alkalinity (bicarbonate/carbonate) -- EPA Method 310.1.
- Nitrogen as Ammonia -- EPA Method 350.1.
- Nitrate/nitrite -- EPA Method 300.0
- Cation/anion balance -- Laboratory standard procedure

The Technical Specification requested testing for cations by EPA Method 200 and nitrate and nitrite by EPA Method 353.1. The laboratory used Method 6020C to test for cations. This method is a more current version of Method 200 and yields lower detection limits. Therefore, this deviation should not have an adverse impact on the groundwater quality data. The use of Method 300 for nitrate and nitrite testing is a different methodology than the requested Method 353.1. Method 300 has a higher precision than 353.1 and Method 353.1 is not typically used by commercial laboratories. Therefore, this deviation should not have an adverse impact on the groundwater quality data. As indicated in correspondence from STL that was forwarded to Bechtel by MACTEC, silica is not a cation. Therefore, STL used Method 6020 to test for silicon, and calculated the resulting silica content based on the assumption that all of the silicon was silica. STL detected ammonia in the method blank associated with samples OW-2301U and L, OW-2307U and L, OW-2319U and L, OW-2321 U and L, OW-2324U and L, OW-2348U and L, OW-2352U and L, OW-2359U1, and OW-2359L2. The reported detections of ammonia in these samples were below the reporting limit. Therefore, MACTEC recommends that these results should be considered non-detect values at the reporting limit of 50μg/L.

Also, the Technical Specification listed cation/anion balance as a laboratory report item. STL reported the ion balance difference as a %, using Standard Method 18 1030F.

The laboratory test results for ground-water chemistry are summarized on Table 5.3 and copies of the laboratory test reports are included in Appendix G. MACTEC's review of the laboratory results identified possible quality issues as detailed above. MACTEC prepared a Supplier Deviation Disposition Request (SDDR No. 47) and recommends the use of the data "as-is", with the exception of the ammonia results as discussed above.

5.6 In-Situ Hydraulic Conductivity Testing

In-situ hydraulic conductivity testing (slug testing) was conducted using procedures described in Section 8 of ASTM D 4044-96 (2002). 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 "falling head" method. After stabilization of the water level due to the falling head test, 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 "rising head" method. Electronic transducers and data loggers are used for measuring the water levels and times during the test.

Slug tests were conducted in observation wells OW-01U and L, OW-02 U and L, OW-03L, OW-04U and L, OW-05U and L, OW-06U and L, OW-07U and L, OW-08U and L, OW-09U and L, OW-10L, OW-2301U and L, OW-2302U and L, OW-2304U and L, OW-2307U and L, OW-2319U and L, OW-2320U and L, OW-2321U and L, OW-2324U and L, OW-2348U and L, and OW-2352U and L. Slug tests were not conducted in observation wells OW-03U and OW-10U due to insufficient water in each well. OW-03U was a dry well, and OW-10U had approximately 3.14 feet of water in the well, which is not enough to conduct slug testing. Additionally, falling head tests were not conducted in wells OW-05U and OW-07U as the water table intercepted the screened interval of both wells, and therefore both wells were not fully submerged. Falling head tests are not conducted on wells that are not fully submerged as the resulting hydraulic conductivity value is biased due to the transmissive qualities of the filter pack material, and are not fully reflective of the aquifer formation material.

Water-level measurements were collected on a logarithmic cycle throughout the slug tests using In-situ Level Troll 900 data loggers. At the completion of each slug test, water-level measurements were downloaded from the data loggers. These data were imported into AQTESOLV™ for Windows version 4.5 and evaluated using both the Bouwer-Rice and Butler methods. The Bouwer-Rice method was used to evaluate the water-level measurements and is based on the following assumptions:

- Aquifer has infinite areal extent
- Test well is fully or partially penetrating
- Aquifer is confined
- Aquifer is homogeneous and of uniform thickness
- Flow to the well is quasi-steady-state (storage is negligible)
- Volume of water, V, is injected into or discharged from the well instantaneously

The Butler method, which accounts for oscillatory water-level response sometimes observed in aquifers of high hydraulic conductivity, was used to evaluate water-level data and is based on the following assumptions:

- Aquifer has infinite areal extent
- Test well is partially penetrating
- Aquifer is confined
- Aquifer is homogeneous and of uniform thickness
- Flow is quasi-steady state
- Volume of water, V, is injected into or discharged from the well instantaneously

Based on these two methods, values of hydraulic conductivity were calculated for each slug test conducted.

A summary of the slug test results is provided in Table 5.4. The software output plots used to analyze the slug test data are included in Appendix G.

5.7 Aquifer Pump Tests

Aquifer pump tests were conducted on test wells TW-2320L and TW-2359U. Each test was conducted in accordance with ASTM D 4050-96 (2002).

Prior to the start of the constant discharge aquifer pumping test, a step drawdown test was run to determine the optimal flow rate for the constant discharge aquifer pumping test. This test involved pumping water from a well at a variable rate (stepping up discharge rate), and measuring the drawdown (change in head) in the pumping well. This test was used to determine what flow rate the well could sustain without drawing the water level down past the pump intake (thus ending the test prematurely). Based on observed drawdowns in TW-2320L it was determined that the well could sustain a flow rate of approximately 3.5 gallons per minute and TW-2359U could sustain approximately 25 gallons per minute for a minimum of 24 hours.

Aquifer pump tests involve pumping water from a well at a constant rate, and measuring the drawdown (change in head) in the pumping well and observation wells installed near the pumping well. Subsequent to completing the pumping phase of the test, the recharge of water (recovery) in each well is also measured. Drawdown and recovery measurements are used to calculate the transmissivity and storativity of the aquifer.

Test wells TW-2320L and TW-2359U were pumped using a Grundfos submersible pump with the intake set within the screened interval of the well. A discharge line was installed from the pump to an electronic flow meter. The flow meter continuously monitored the flow rate and stored an average value for each five minute period of the pump test. The pump test for TW-2320L was run for a 24-hour period and the pump test for TW-2359U was run for a 48-hour period. Recovery measurements were collected for the pumping wells and observation wells until 95% of the static water level had recharged in each well in which drawdown was observed. The exception to this was for OW-10L. Therefore, data from OW-10L was not used in the calculations. It is possible that drawdown in OW-10L was not related to the pump test.

The discharge water was piped from the flow meter to a location away from the pumping wells and approved by Bechtel where it was allowed to discharge to the surface. Based on the pump rates recorded by the flow meter contained in Appendix G, test well TW-2320L was pumped at an average rate of 3.19 gallons per minute and test well TW-2359U was pumped at an average rate of 21.23 gallons per minute.

Drawdown and recovery measurements were collected on a logarithmic cycle throughout the pump test using In-situ Level Troll 900 data loggers. At the completion of each pump test, drawdown and recovery measurements were downloaded from the data loggers. These data were imported into AQTESOLV™ for Windows version 4.5 and evaluated using both the Theis and Cooper-Jacob methods. The Theis method was used to evaluate both drawdown and combined recovery data from multiple wells, and is based on the following assumptions:

- Aquifer has infinite areal extent
- Pumping well is fully or partially penetrating
- Aquifer is confined
- Water is release instantaneously from storage with decline of hydraulic head
- Aquifer is homogeneous and of uniform thickness
- Flow to pumping well is horizontal when pumping well is fully penetrating
- Flow is unsteady
- Diameter of pumping well is very small so that well storage can be neglected

The Cooper-Jacob method was used to evaluate drawdown data, and is based on the following assumptions:

- Aquifer has infinite areal extent
- Pumping well is fully penetrating
- Aquifer is confined
- Water is release instantaneously from storage with decline of hydraulic head
- Values of u are small (i.e. radial distance pumping well to observation well is small and time is large)
- Aquifer is homogeneous, isotropic and of uniform thickness
- Flow to pumping well is horizontal
- Flow is unsteady
- Diameter of pumping well is very small so that well storage can be neglected

Based on these two methods, values of transmissivity and storativity were calculated for the aquifer targeted by the pump test.

Summaries of pertinent pump test data for TW-2320L are provided in Tables 5.5, 5.6, and 5.7. Summaries of pertinent pump test data for TW-2359U are provided in Tables 5.8, 5.9, and 5.10. Pump test data forms, AQTESOLV curve match plots, water level versus time plots, and recorded pump rate values are contained in Appendix G for each pump test. Also in Appendix G are graphs of barometric pressure versus time and stage data for the USGS gauging station located on the Guadalupe River near Bloomington, Texas.

5.8 Borehole Permeameter Tests

The hydraulic conductivity of unsaturated zone soils within the cooling basin area was determined through borehole permeameter testing. These tests were conducted using a Guelph, downhole permeameter device in accordance with ASTM D 5126-90 (2004). Borehole permeameter testing involves a two-phase test approach. A borehole is advanced using a hand or powered auger to the targeted depth and completed with a special tip to prepare the borehole walls and floor for testing. The rate of change needed to maintain a five centimeter head in the borehole is measured over time until a consistent rate is determined. A consistent rate is considered no change between three successive time readings. The process is conducted again while maintaining a 10 centimeter head within the borehole. This testing was conducted at two different levels in the boreholes, as indicated by the U and L suffixes (upper and lower, respectively) associated with each borehole identification. The results of these tests are used to calculate the saturated hydraulic conductivity of unsaturated zone soils.

Borehole permeameter tests were conducted in borings 2309P-U and -L, 2311P-U and –L, 2312P-U and –L, 2313P-U and –L, 2314P-U and –L, 2325P-U and –L, 2326P-U and –L, 2327P-U and –L, 2328P-U and –L, 2329P-U and –L, 2330P-U and –L, 2339P-U and –L, 2341P-U and –L, 2342P-U and –L, 2343P-U and –L, and 2345P-U and –L. Due to no measurable infiltration of water over a four-hour period into the unsaturated zone soils associated with borings 2309P-U, 2311P-L, 2313P-U, 2314P-L, 2326P-U, 2327P-U, 2329P-U or –L, 2342P-U or –L, 2343P-U or –L, and 2345P-U or –L, hydraulic conductivities could not be calculated for these soils. Additionally, because of an equipment malfunction, a single-head calculation from the 5cm head values was conducted for boring 2325P-U.

A summary of the saturated hydraulic conductivities is provided in Table 5.11. The calculation sheets including field readings and boring logs are included in Appendix G.

FINAL DATA REPORT Rev 0
GEOTECHNICAL EXPLORATION AND TESTING

EXELON TEXAS COL PROJECT
VICTORIA COUNTY, TEXAS
COOLING BASIN

July 18, 2008

VOLUME 1

Prepared By:

MACTEC Engineering and Consulting, Inc.
Raleigh, North Carolina

MACTEC Project No. 6468-07-1777

Prepared For:

Bechtel Power Corporation
Subcontract No. 25352-102-HC4-CY00-00001

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TABLE 1.1
ORGANIZATIONS PERFORMING WORK AT THE SITE OR IN THE LABORATORY

Organization	Function
MACTEC Engineering and Consulting, Inc.	• Underground Utility Clearance • Geotechnical soil borings with SPT tests • Undisturbed Sampling • Boring Abandonment • Bulk Sampling • Geotechnical Laboratory Testing for Soil samples • SPT Energy Measurement on Drill Rig • Well Installation • Water Sampling • Slug Testing • Aquifer Pumping Test • Logging of Soil Borings • Site Coordination • Field Electrical Resistivity • Borehole Permeameter
Fugro Consultants, Inc.	• CPT Tests • RCTS Testing • Soil Sample Strength Testing
Lewis Environmental Services, Inc	• Observation Well Installation
Best Drilling, Inc.	• Observation Well Installation • Drilling for Geophysical Tests
STL Laboratories (Test America)	• Laboratory Chemical Testing for Soil & Water Samples
Miller Drilling, Inc. Environmental Exploration Inc. (EEI)	• Geotechnical soil borings with SPT tests • Undisturbed Sampling
GEOVision	• Downhole geophysical logging • Resistivity testing • P-S suspension logging
Survcon, Inc.	• Surveying of borings, observation wells, CPT locations, test pits and geophysical test locations
University of Texas Austin/Dr. Stokoe	• RCTS Testing

Prepared By JPR 6-13-08
Checked By KAW 6-13-08

TABLE 2.1 A
TESTING SUMMARY - SOIL BORINGS
Exelon COL Project (Victoria Site)
MACTEC Project No. 6468-07-1777
COOLING BASIN

Boring Number	Boring Type				Equipment		Depth (ft)		As-Built Coordinates/Elevations			In-Situ Testing					
	SPT	UD Tubes	Geophysical	Auger Probe	Drill Rig	Hammer ID	Proposed	Actual	Northing (US ft)	Easting (US ft)	Ground Surface Elevation (ft)	P-S Suspension	Deviation	Natural Gamma	Resistivity	Caliper	Spontaneous Potential
B-01	X				CME-55 LC (track)	MEC 02	150.0	150.0	13,404,257.08	2,606,680.96	71.46						
B-02	X				CME-55 LC (track)	MEC 02	150.0	150.0	13,411,511.00	2,607,865.77	74.68						
B-03	X				CME-55 LC (track)	MEC 02	150.0	150.0	13,414,926.74	2,609,291.47	74.89						
B-04	X				CME-55 LC (track)	MEC 02	150.0	150.2	13,414,277.17	2,607,437.06	78.97						
B-05	X				CME-55 LC (track)	MEC 02	150.0	150.2	13,414,770.02	2,605,821.89	77.56						
B-06	X				CME-55 LC (track)	MEC 02	150.0	150.2	13,415,884.18	2,604,971.12	78.98						
B-07	X				CME-55 LC (track)	MEC 02	150.0	150.2	13,418,366.17	2,606,567.82	77.39						
B-08	X				CME-55 LC (track)	MEC 02	150.0	150.0	13,415,809.85	2,598,937.51	81.71						
B-09	X				CME-55 LC (track)	MEC 02	150.0	150.2	13,414,943.90	2,604,897.77	77.36						
B-10	X				CME-55 LC (track)	MEC 02	150.0	150.2	13,418,474.15	2,604,736.80	77.69						
B-11			X		Failing 1500	NA	310.0	310.0	13,411,479.49	2,607,866.27	74.47	X		X	X	X	X
B-12			X		Failing 1500	NA	310.0	310.0	13,418,446.37	2,606,546.46	76.70	X		X	X	X	X
B-2301A	X				CME-55 LC (track)	MEC 02	300.0	300.0	13,414,429.68	2,596,278.37	81.23						
B-2301			X		CME-55 LC (track)	MEC 02	310.0	310.0	13,414,414.60	2,596,251.62	80.79	X	X	X	X	X	X
B-2302A	X				CME-55 LC (track)	MEC 02	150.0	150.0	13,407,371.01	2,598,389.30	80.32						
B-2302			X		CME-75 (truck)	MEC 09	315.0	315.0	13,407,401.61	2,598,386.93	80.00	X	X	X	X	X	X
B-2302UD		X			CME-75 (truck)	NA	150.0	147.3	13,407,373.35	2,598,406.10	80.00						
B-2303A	X				CME-75 (truck)	MEC 09	300.0	300.0	13,402,308.03	2,600,478.63	75.36						
B-2303			X		Failing 1500	NA	310.0	310.0	13,402,314.55	2,600,497.11	75.56	X	X	X	X	X	X
B-2304A	X				CME-550X (ATV)	MEC 05	300.0	296.5	13,396,556.48	2,608,686.75	68.33						
B-2304			X		Failing 1500	NA	310.0	310.0	13,396,541.80	2,608,710.01	68.12	X	X	X	X	X	X
B-2304UD		X			CME-550X (ATV)	NA	150.0	143.5	13,396,571.12	2,608,693.06	68.46						
B-2305A	X				CME-75 (truck)	MEC 09	300.0	300.1	13,406,652.71	2,621,646.04	65.45						
B-2305			X		CME-75 (truck)	MEC 09	305.0	305.0	13,406,649.21	2,621,680.51	65.58	X		X	X	X	X
B-2306A	X				CME-45 (track)	MEC 12	100.0	100.0	13,411,450.19	2,615,249.64	64.28						
B-2306			X		Failing 1500	NA	310.0	310.0	13,411,472.15	2,615,253.02	64.68	X	X	X	X	X	X
B-2307A	X				CME-75 (truck)	MEC 09	300.0	299.4	13,420,888.12	2,603,157.79	76.75						
B-2307			X		CME-75 (truck)	MEC 11	310.0	310.0	13,420,917.89	2,603,184.91	76.38	X	X	X	X	X	X
B-2308	X				CME-55 LC (track)	MEC 02	100.0	100.0	13,404,197.77	2,599,333.56	76.39						
B-2309 PL				X	Bobcat	NA	10.0	10.0	13,405,491.59	2,600,445.06	76.13						
B-2309PU				X	Bobcat	NA	5.0	5.0	13,405,492.30	2,600,435.20	76.25						
B-2310	X				CME-45 (track)	MEC 12	60.0	100.0	13,406,601.70	2,601,353.57	75.95						
B-2311PL				X	Bobcat	NA	10.0	10.0	13,407,702.98	2,602,296.89	75.33						
B-2311PU				X	Bobcat	NA	5.0	5.0	13,407,705.71	2,602,287.63	75.71						
B-2312PL				X	Bobcat	NA	10.0	10.0	13,410,694.32	2,604,153.23	75.50						
B-2312PU				X	Bobcat	NA	5.0	5.0	13,410,699.82	2,604,161.16	75.46						
B-2313PL				X	Bobcat	NA	10.0	10.0	13,412,115.55	2,605,606.11	77.97						
B-2313PU				X	Bobcat	NA	5.0	5.0	13,412,117.40	2,605,610.94	77.86						
B-2314PL				X	Bobcat	NA	10.0	10.0	13,413,940.68	2,607,782.57	75.42						
B-2314PU				X	Bobcat	NA	5.0	5.0	13,413,937.97	2,607,776.49	75.48						
B-2315	X				CME-550 (ATV)	MEC 03	100.0	101.1	13,416,228.72	2,609,409.27	47.06						
B-2316	X				CME-550 (ATV)	MEC 03	100.0	100.8	13,413,189.22	2,608,491.76	75.17						
B-2317	X				CME-550 (ATV)	MEC 03	100.0	101.0	13,410,598.40	2,600,511.90	76.73						
B-2318	X				CME-750 (ATV)	263048	100.0	101.5	13,401,612.98	2,601,154.61	75.31						
B-2319	X				CME-750 (ATV)	263048	150.0	151.5	13,403,601.01	2,603,048.72	74.16						
B-2319UD		X			CME-550X (ATV)	NA	150.0	115.0	13,403,595.98	2,603,062.86	74.16						
B-2320	X				CME-750 (ATV)	263048	150.0	151.5	13,407,573.79	2,606,839.75	71.46						
B-2321	X				CME-45 (track)	MEC 12	150.0	150.0	13,410,953.82	2,610,037.97	71.62						
B-2321UD		X			CME-750 (ATV)	NA	150.0	132.5	13,410,937.49	2,610,017.10	71.81						
B-2322	X				CME-45 (track)	MEC 12	100.0	100.0	13,413,528.90	2,612,528.69	68.53						
B-2324	X				CME-550 (ATV)	MEC 03	150.0	151.2	13,416,308.77	2,612,208.94	24.47						
B-2325PL				X	Bobcat	NA	10.0	10.0	13,401,292.30	2,603,696.51	73.85						
B-2325PU				X	Bobcat	NA	5.0	5.0	13,401,288.29	2,603,699.18	73.79						

Prepared By JDK 6-13-08
Checked By KAW 6-13-08

TABLE 2.1 A
TESTING SUMMARY - SOIL BORING
Exelon COL Project (Victoria Site)
MACTEC Project No. 6468-07-1777
COOLING BASIN

Boring Number	Boring Type				Equipment		Depth (ft)		As-Built Coordinates/Elevations			In-Situ Testing					
	SPT	UD Tubes	Geophysical	Auger Probe	Drill Rig	Hammer ID	Proposed	Actual	Northing (US ft)	Easting (US ft)	Ground Surface Elevation (ft)	P-S Suspension	Deviation	Natural Gamma	Resistivity	Caliper	Spontaneous Potential
B-2326PL				X	Bobcat	NA	10.0	10.0	13,403,074.73	2,605,620.44	70.76						
B-2326PU				X	Bobcat	NA	5.0	5.0	13,403,069.23	2,605,616.46	70.97						
B-2327PL				X	Bobcat	NA	10.0	10.0	13,404,712.18	2,607,384.02	70.81						
B-2327PU				X	Bobcat	NA	5.0	5.0	13,404,711.41	2,607,393.78	71.24						
B-2328PL				X	Bobcat	NA	10.0	10.0	13,406,222.90	2,609,021.23	68.42						
B-2328PU				X	Bobcat	NA	5.0	5.0	13,406,233.26	2,609,021.31	68.13						
B-2329PL				X	Bobcat	NA	10.0	10.0	13,407,871.37	2,610,784.65	68.06						
B-2329PU				X	Bobcat	NA	5.0	5.0	13,407,877.98	2,610,791.88	68.07						
B-2330PL				X	Bobcat	NA	10.0	10.0	13,410,088.73	2,613,185.03	68.18						
B-2330PU				X	Bobcat	NA	5.0	5.0	13,410,096.27	2,613,183.99	67.89						
B-2331	X				CME-550 (ATV)	MEC 03	100.0	101.1	13,409,862.54	2,612,278.74	69.37						
B-2332	X				CME-550 (ATV)	MEC 03	100.0	100.2	13,414,435.21	2,603,735.80	78.68						
B-2333	X				CME-750 (ATV)	263048	100.0	101.5	13,398,864.77	2,603,981.87	76.07						
B-2334	X				CME-750 (ATV)	263048	60.0	61.5	13,400,634.86	2,606,130.71	71.85						
B-2335	X				CME-750 (ATV)	263048	60.0	61.5	13,404,183.94	2,610,412.10	66.75						
B-2336	X				CME-45 (track)	MEC 12	100.0	100.0	13,409,474.40	2,616,874.85	68.00						
B-2337	X				CME-45 (track)	MEC 12	100.0	100.0	13,407,263.05	2,614,846.26	67.23						
B-2338	X				CME-45 (track)	MEC 13	100.0	101.7	13,398,220.80	2,606,385.80	68.15						
B-2339PL				X	Bobcat	NA	10.0	10.0	13,399,911.22	2,608,674.69	68.63						
B-2339PU				X	Bobcat	NA	5.0	5.0	13,399,916.45	2,608,670.14	68.75						
B-2340	X				CME-750 (ATV)	263048	60.0	61.5	13,400,762.63	2,609,812.65	68.09						
B-2341PL					Bobcat	NA	10.0	10.0	13,401,617.83	2,610,954.24	65.53						
B-2341PU				X	Bobcat	NA	5.0	5.0	13,401,610.51	2,610,947.05	64.98						
B-2342PL				X	Bobcat	NA	10.0	10.0	13,402,761.03	2,612,526.25	67.34						
B-2342PU				X	Bobcat	NA	5.0	5.0	13,402,788.89	2,612,523.26	67.61						
B-2343PL				X	Bobcat	NA	10.0	10.0	13,404,159.35	2,614,395.88	64.95						
B-2343PU				X	Bobcat	NA	5.0	5.0	13,404,159.36	2,614,386.73	64.62						
B-2344	X				CME-750 (ATV)	263048	60.0	61.5	13,404,997.85	2,615,527.11	65.78						
B-2345PL				X	Bobcat	NA	10.0	10.0	13,405,831.44	2,616,657.32	67.79						
B-2345PU				X	Bobcat	NA	5.0	5.0	13,405,835.31	2,616,662.51	67.91						
B-2346	X				CME-45 (track)	MEC 12	100.0	100.0	13,407,540.56	2,618,951.51	67.09						
B-2348	X				CME-45 (track)	MEC 13	150.0	150.0	13,409,626.85	2,621,653.06	50.63						
B-2349	X				CME-550 (ATV)	MEC 03	100.0	101.2	13,417,352.46	2,607,239.49	76.66						
B-2350	X				CME-45 (track)	MEC 13	100.0	100.1	13,395,764.08	2,610,122.62	65.25						
B-2351	X				CME-45 (track)	MEC 13	100.0	100.0	13,398,915.88	2,613,285.96	63.73						
B-2352	X				CME-45 (track)	MEC 13	150.0	150.0	13,402,480.47	2,617,531.27	62.91						
B-2352UD		X			CME-750 (ATV)	NA	150.0	94.5	13,402,493.35	2,617,543.73	62.84						
B-2353	X				CME-45 (track)	MEC 13	100.0	99.9	13,406,185.70	2,620,582.19	65.60						
B-2354	X				CME-550 (ATV)	MEC 03	100.0	100.2	13,418,119.59	2,607,884.13	76.83						
B-2355	X				CME-750 (ATV)	263048	100.0	101.7	13,412,008.12	2,611,224.44	71.04						
B-2356	X				CME-750 (ATV)	263048	100.0	101.9	13,409,147.49	2,614,293.88	67.71						
B-2357	X				CME-45 (track)	MEC 13	100.0	100.0	13,404,654.33	2,620,736.11	65.67						
B-2358	X				CME-750 (ATV)	263048	150.0	151.5	13,402,101.51	2,611,620.85	66.47						
B-2359	X				CME-550 (ATV)	MEC 03	150.0	151.3	13,417,294.57	2,605,500.03	77.57						
B-2359UD		X			CME-750 (ATV)	NA	150.0	121.7	13,417,325.03	2,605,493.44	77.35						

Prepared By JPK 6-13-08
Checked By KAW 6-13-08

TABLE 2.1 B
TESTING SUMMARY - TEST PITS
Exelon COL Project (Victoria Site)
MACTEC Project No. 6468-07-1777
COOLING BASIN

Test Pit Number	Coordinates			Comments
	Northing (US ft)	Easting (US ft)	Ground Surface Elevation (ft)	
TP-2310	13,406,614.56	2,601,358.66	75.57	
TP-2314	13,413,935.46	2,607,799.59	74.70	
TP-2317	13,410,595.30	2,600,492.45	76.76	Bulk sample selected for laboratory testing of recompacted specimens (representative of Cooling Basin embankment fill)
TP-2319	13,403,607.12	2,603,037.74	74.25	Bulk sample selected for laboratory testing of recompacted specimens (representative of Cooling Basin embankment fill)
TP-2320	13,407,598.78	2,606,824.54	71.41	
TP-2321	13,410,972.16	2,610,031.41	70.82	
TP-2332	13,414,422.39	2,603,751.85	78.22	
TP-2334	13,400,632.04	2,606,110.32	72.41	Bulk sample selected for laboratory testing of recompacted specimens (representative of Cooling Basin embankment fill)
TP-2335	13,404,163.77	2,610,401.63	66.82	
TP-2337	13,407,266.15	2,614,864.54	66.92	
TP-2351	13,398,902.07	2,613,286.15	63.91	
TP-2352	13,402,479.96	2,617,531.97	62.97	

Prepared By JPK 6-13-08
Checked By KAW 6·13·08

TABLE 2.1 C
TESTING SUMMARY - CPT
Exelon COL Project (Victoria Site)
MACTEC Project No. 6468-07-1777
Cooling Basin

CPT Number	Depth		Testing		Coordinates			Comments
	Proposed	Actual	Seismic	Pore Pressure Dissipation	Northing (US ft)	Easting (US ft)	Ground Surface Elevation	
C-2301S	100	34.5	X		13408989.39	2599158.23	79.08	Refusal
C-2301SA	100	30.0			13408982.41	2599162.20	78.70	Refusal
C-2302	100	94.7			13412519.49	2602124.85	77.49	
C-2303s	100	97.2	X	X	13416428.66	2605405.65	76.79	
C-2304	60	60.0			13418878.70	2607463.62	74.85	
C-2305	60	60.0			13408849.43	2603251.14	75.47	
C-2306	60	60.0			13411148.27	2605179.25	77.54	
C-2307	60	60.0			13414685.38	2608147.28	74.88	
C-2308	100	86.4			13415348.90	2610567.73	58.02	
C-2309	60	54.2			13405587.95	2604945.49	72.92	
C-2310	60	60.0			13409556.77	2608738.56	70.88	
C-2311	100	78.0		X	13413231.26	2613049.76	41.70	Refusal
C-2311A	100	100.0		X	13413277.55	2612969.43	50.49	
C-2312	100	90.2		X	13397971.98	2606226.92	64.99	
C-2313	60	60.0			13399066.96	2607529.09	71.17	
C-2314	60	60.0			13402413.42	2608270.67	69.45	
C-2315	60	60.0			13405943.12	2612535.56	66.35	
C-2316	60	60.0			13407731.74	2614700.43	68.23	
C-2317	100	83.8			13408493.37	2617901.20	45.17	
C-2318	60	60.0			13403305.07	2613240.79	66.39	
C-2319	60	60.0			13406689.77	2617807.82	65.56	
C-2321s	100	49.9			13397141.61	2611187.71	65.80	Refusal
C-2321sA	100	51.0			13397149.37	2611182.17	65.90	Refusal
C-2322	100	83.9			13400701.15	2615409.91	62.19	
C-2323SA	100	100.0	X	X	13404257.20	2619650.56	65.67	
C-2324	60	60.0			13406320.31	2622094.07	63.58	
C-2328	60	60.0			13395274.28	2609720.08	65.62	

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RALEIGH, NC

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Prepared By: ZHU Date: 7-16-08
Checked By: KAW Date: 7-16-08

TABLE 4.1
SUMMARY OF SOIL INDEX TEST RESULTS FOR SPLIT SPOON SAMPLES
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)
B-2302A	SS 1	0-1.5	CL	0.0	49.6	50.4	28.6	21.8	11.3	32	14	18		2.1
B-2302A	SS 2A	3.5-3.6							13.2					
B-2302A	SS 2B	3.6-5	CH	0.0	32.0	68.0	22.9	45.1	17.3	50	15	35	2.70	1.8
B-2302A	SS 3	6.0-7.5	CH	0.0	24.8	75.2	27.9	47.3	17.6	50	15	35		1.3
B-2302A	SS 4	8.5-10	CH	0.0	18.5	81.5	35.0	46.5	18.4	50	15	35		
B-2302A	SS 5	11.0-12.5	CL	0.0	38.2	61.8	34.6	27.2	15.8	26	14	12		
B-2302A	SS 6	13.5-15	SP-SM[1]	0.0	90.9	9.1							2.65	
B-2302A	SS 7	18.5-20	SP-SM[1]	0.5	88.4	11.1								
B-2302A	SS 8	23.5-25	CH	0.0	16.7	83.3	40.2	43.1	20.7	59	18	41		
B-2302A	SS 9	28.5-30	CH	0.0	7.4	92.6	20.4	72.2	29.2	81	23	58		
B-2302A	SS 10	33.5-35	CL	0.0	12.6	87.4	40.8	46.6	20.4	46	16	30	2.69	
B-2302A	SS 11	38.5-40	CH	0.0	4.8	95.2	28.5	66.7	22.6	69	22	47		
B-2302A	SS 12	43.5-45	CL	0.0	27.9	72.1	41.1	31.0	18.8	48	15	33		
B-2302A	SS 13	48.5-50	CL	0.0	13.8	86.2	54.8	31.4	20.1	38	13	25		
B-2302A	SS 14A	53.5-54	CL	0.0	45.0	55.0	21.0	34.0	18.0	37	13	24		
B-2302A	SS 14B	54.0-55	SC[1]	0.0	66.2	33.8							2.66	
B-2302A	SS 15A	58.5-59	SC[1]	0.0	70.8	29.2								
B-2302A	SS 15B	59.0-60	CL	0.0	33.5	66.5	19.0	47.5	18.8	43	14	29		
B-2302A	SS 17	68.5-70	CH	0.0	4.4	95.6	27.1	68.5	22.0	70	18	52		
B-2302A	SS 18	73.5-75	CH	0.0	23.6	76.4	24.1	52.3	17.9	52	15	37	2.69	
B-2302A	SS 19	78.8-80	CH	0.0	25.7	74.3	14.1	60.2	23.3	58	19	39		
B-2302A	SS 20	83.5-85	SM[1]	0.0	84.0	16.0								
B-2302A	SS 23	98.5-100	SC	0.0	56.9	43.1	9.5	33.6	17.5	39	16	23	2.70	
B-2302A	SS 24	108.5-110	SM	0.0	78.2	21.8	9.7	12.1		NV	NP	NP		
B-2302A	SS 26	128.5-130	CL	0.0	25.9	74.1	44.0	30.1	19.8	29	14	15	2.69	
B-2302A	SS 28	143.5-145	CH	0.0	2.7	97.3	19.4	77.9	25.7	51	16	35		
B-2302A	SS 29	148.5-150	SC[1]	0.0	82.2	17.8							2.65	
B-2304A	SS 1	0-1.5	ML	0.0	49.0	51.0	35.3	15.7	18.7	21	20	1		3.1
B-2304A	SS 2	3.5-5	CL	0.0	32.8	67.2	23.6	43.6	19.0	47	15	32	2.67	1.7
B-2304A	SS 3	6-7.5	CL	0.0	28.5	71.5	30.8	40.7	18.8	43	14	29		1.2
B-2304A	SS 4	8.5-10	CL	0.0	28.3	71.7	39.5	32.2	19.6	36	14	22		
B-2304A	SS 5	11-12.5	CL	0.0	16.8	83.2	56.1	27.1	17.3	27	16	11		
B-2304A	SS 6	13.5-15	SC-SM	0.0	50.6	49.4	30.9	18.5	17.9	22	15	7	2.67	
B-2304A	SS 7	18.5-20	CL	0.0	37.9	62.1	33.4	28.7	16.3	27	16	11		
B-2304A	SS 8	23.5-25	SM	0.0	84.9	15.1	8.0	7.1	11.0	NV	NP	NP		
B-2304A	SS 9	28.5-30	SM	0.0	85.5	14.5	9.0	5.5	10.4	NV	NP	NP		
B-2304A	SS 10	33.5-35	SM[1]	0.0	87.7	12.3							2.66	
B-2304A	SS 11	38.5-40	SP-SM[1]	0.0	94.0	6.0								
B-2304A	SS 12	43.5-45	SP-SM[1]	0.0	89.0	11.0								
B-2304A	SS 13	48.5-50	SM[1]	0.0	69.5	30.5								
B-2304A	SS 14	53.5-55	CH	0.0	2.5	97.5	11.6	85.9	30.6	89	30	59	2.71	
B-2304A	SS 15A	58.5-59.5	CH	0.0	13.3	86.7	28.1	58.6	26.7	54	22	32		
B-2304A	SS 15B	59.5-60	CL	0.0	29.8	70.2	39.9	30.3	18.2	32	14	18		
B-2304A	SS 16	63.5-65	CL	0.0	48.2	51.8	9.4	42.4	18.0	45	18	27		
B-2304A	SS 17	68.5-70	CH	0.0	18.9	81.1	17.1	64.0	19.8	56	22	34		
B-2304A	SS 18	73.5-75	CH	0.0	3.5	96.5	13.9	82.6	28.8	79	33	46		
B-2304A	SS 19	78.5-80	CH	0.0	7.4	92.6	12.1	80.5	31.0	83	30	53		
B-2304A	SS 20	83.5-85	CH	0.0	12.2	87.8	25.2	62.6	33.3	81	32	49		
B-2304A	SS 21	88.5-90	SP-SM[1]	0.0	92.6	7.4							2.65	

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.1
SUMMARY OF SOIL INDEX TEST RESULTS FOR SPLIT SPOON SAMPLES
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)
B-2304A	SS 22	93.5-95	CL	0.1	31.1	68.8	18.9	49.9	18.1	43	15	28		
B-2304A	SS 23	98.5-100	CH	0.0	15.5	84.5	24.7	59.8	20.5	54	18	36		
B-2304A	SS 24	108.5-110	CH	0.0	2.0	98.0	13.8	84.2	23.5	77	27	50	2.70	
B-2304A	SS 25	118.5-120	CH	0.0	12.0	88.0	22.2	65.8	22.0	60	17	43		
B-2304A	SS 26	128.5-130	SC[1]	0.0	78.0	22.0							2.65	
B-2304A	SS 27	138.5-140	CL	0.0	31.9	68.1	39.3	28.8	19.4	30	15	15		
B-2304A	SS 28	148.5-150	CH	0.0	1.8	98.2	32.0	66.2	21.6	53	15	38	2.72	
B-2304A	SS 29	158.5-160	SC[1]	0.0	85.3	14.7								
B-2304A	SS 30	168.5-170	CH	0.0	15.3	84.7	27.2	57.5	22.9	50	14	36	2.71	
B-2304A	SS 31	178.5-180	CH	0.0	4.4	95.6	15.9	79.7	30.7	76	29	47		
B-2304A	SS 32	188.5-190	SM	0.0	85.3	14.7	2.7	12.0	20.4	NV	NP	NP	2.66	
B-2304A	SS 33	198.5-200	SC	0.0	65.5	34.5	17.2	17.3	17.1	27	19	8	2.65	
B-2304A	SS 34	218.5-220	SM[1]	0.0	72.6	27.4								
B-2304A	SS 35	238.5-240	SC	0.0	56.7	43.3	23.2	20.1	16.8	23	13	10	2.66	
B-2304A	SS 36	258.5-260.0	SC	0.0	62.8	37.2	26.3	10.9	22.6	24	13	11	2.65	
B-2304A	SS 37	278.5-280	CH	0.0	4.1	95.9	28.2	67.7	32.1	67	27	40		
B-2304A	SS 38	295.0-296.5	CL	0.0	19.6	80.4	26.9	53.5	24.9	49	15	34	2.69	
B-2319	SS 1	0-1.5	CL	0.0	49.0	51.0	6.5	44.5	18.2	46	16	30		2.8
B-2319	SS 2	3.5-5	SC	0.0	57.4	42.6	7.4	35.2	14.9	35	13	22		1.6
B-2319	SS 3	6-7.5	SC	0.0	55.7	44.3	7.9	36.4	15.1	35	13	22	2.69	1.9
B-2319	SS 4	8.5-10	CL	1.5	39.7	58.8	17.2	41.6	16.9	30	12	18		
B-2319	SS 5	11-12.5	SC-SM	0.0	78.8	21.2	3.7	17.5	24.6	16	11	5		
B-2319	SS 6	13.5-15	SP-SM	0.0	93.1	6.9	1.0	5.9	20.4	NV	NP	NP		
B-2319	SS 7	20-21.5	SM	0.5	83.4	16.1	6.7	9.4	15.3	NV	NP	NP		
B-2319	SS 8	25-26.5	CH	0.0	19.3	80.7	24.8	55.9	22.3	53	15	38		
B-2319	SS 9	30-31.5	CL	0.0	29.9	70.1	30.0	40.1	16.3	37	12	25		
B-2319	SS 10	35-36.5	CL	0.0	17.8	82.2	27.7	54.5	16.4	48	13	35	2.67	
B-2319	SS 11	40-41.5	SC	2.4	62.7	34.9	12.3	22.6	17.5	23	12	11		
B-2319	SS 12	45-46.5	SC	3.8	58.0	38.2	15.2	23.0	19.5	21	12	9		
B-2319	SS 13	50-51.5	CH	0.0	12.8	87.2	12.9	74.3	28.2	68	20	48		
B-2319	SS 14	55-56.5	CH	0.0	4.2	95.8	13.5	82.3	28.9	81	24	57		
B-2319	SS 15	60-61.5	CH	0.0	8.0	92.0	23.4	68.6	36.6	92	26	66		
B-2319	SS 16	65-66.5	CH	0.0	2.9	97.1	11.2	85.9	25.4	76	21	55		
B-2319	SS 17	70-71.5	CL	0.0	35.0	65.0	17.4	47.6	16.1	41	12	29		
B-2319	SS 18	75-76.5	CL	0.0	42.4	57.6	24.3	33.3	20.4	41	16	25		
B-2319	SS 19	80-81.5	SM	0.0	82.7	17.3	10.1	7.2	27.2	NV	NP	NP		
B-2319	SS 20	85-86.5	CH	0.0	23.8	76.2	10.9	65.3	30.7	68	20	48		
B-2319	SS 21	90-91.5	SP-SM	0.0	93.8	6.2	0.0	6.2	18.9	NV	NP	NP		
B-2319	SS 22	95-96.5	SM	0.2	77.4	22.4	15.3	7.1	17.6	NV	NP	NP	2.65	
B-2319	SS 23	100-101.5	SP-SM	0.6	93.8	5.6	2.1	3.5	17.3	NV	NP	NP		
B-2319	SS 24	110-111.5	SM	0.0	61.8	38.2	17.9	20.3	24.8	21	19	2		
B-2319	SS 25	120-121.5	SM	0.0	85.3	14.7	6.7	8.0	23.9	NV	NP	NP		
B-2319	SS 26	130-131.5	SM	0.0	83.8	16.2	6.0	10.2	20.3	NV	NP	NP		
B-2319	SS 27	140-141.5	SP-SM	0.1	91.6	8.3	3.3	5.0	20.2	NV	NP	NP		
B-2319	SS 28	150-151.5	SM	0.0	68.4	31.6	12.8	18.8	14.3	NV	NP	NP		
B-2320	SS 15	60-61.5	SC[1]	0.6	84.1	15.3	6.0	9.3						
B-2320	SS 17	70-71.5	SC[1]	0.9	52.5	46.6	28.5	18.1						
B-2320	SS 18	75-76.5	SP-SC[1]	0.2	91.3	8.5	3.4	5.1						

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.1
SUMMARY OF SOIL INDEX TEST RESULTS FOR SPLIT SPOON SAMPLES
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)
B-2321	SS 1	0-1.5	CL	0.0	38.1	61.9	23.7	38.2	19.4	40	14	26		5.4
B-2321	SS 2	3.5-5	CL	0.5	16.5	83.0	30.7	52.3	22.5	48	15	33	2.68	2.0
B-2321	SS 3	6-7.5	CL	0.0	23.7	76.3	25.9	50.4	18.3	47	15	32		1.6
B-2321	SS 4	8.5-10	CH	0.0	12.6	87.4	31.3	56.1	16.5	52	19	33		
B-2321	SS 5	11-12.5	CH	0.0	3.2	96.8	29.5	67.3	18.7	62	16	46		
B-2321	SS 6	13.5-15	CL	0.0	9.5	90.5	37.2	53.3	14.4	44	19	25		
B-2321	SS 7	18.5-20	CL	0.0	37.7	62.3	42.5	19.8	16.6	24	16	8	2.66	
B-2321	SS 8	23.5-25	CL	0.0	6.7	93.3	47.0	46.3	16.3	42	15	27		
B-2321	SS 9	28.5-30.0	CH	0.0	5.6	94.4	21.0	73.4	21.8	70	20	50		
B-2321	SS 10	33.5-35	CH	0.0	9.8	90.2	27.7	62.5	18.1	63	23	40		
B-2321	SS 11	38.5-40	CH	0.0	4.2	95.8	31.1	64.7	20.1	59	26	33	2.67	
B-2321	SS 12	43.5-45	CH	0.0	1.1	98.9	13.2	85.7	26.4	90	36	54		
B-2321	SS 13	48.5-50	CH	0.0	10.7	89.3	14.4	74.9	24.4	82	28	54		
B-2321	SS 14	53.5-55	CL	0.0	41.5	58.5	17.0	41.5	16.5	41	12	29		
B-2321	SS 15	58.5-60	CL	0.3	42.6	57.1	13.2	43.9	15.8	41	18	23	2.68	
B-2321	SS 16	63.5-65	CL	0.0	49.7	50.3	18.9	31.4	16.0	31	14	17		
B-2321	SS 17	68.5-70	SC	0.0	57.0	43.0	16.6	26.4	16.3	30	17	13		
B-2321	SS 18	73.5-75	CL	0.0	39.6	60.4	24.7	35.7	20.1	32	14	18		
B-2321	SS 19	78.5-80	SP-SC[1]	0.0	94.4	5.6							2.65	
B-2321	SS 20	83.5-85	SP-SC[1]	0.1	89.3	10.6								
B-2321	SS 21	88.5-90	SC[1]	0.1	86.9	13.0								
B-2321	SS 22	93.5-95	SP-SC[1]	0.0	89.1	10.9								
B-2321	SS 23	98.5-100	SM[1]	0.0	72.6	27.4								
B-2321	SS 25	118.5-120	SC[1]	0.0	59.3	40.7								
B-2321	SS 26	128.5-130	CH	0.0	15.0	85.0	23.1	61.9	16.0	70	19	51	2.70	
B-2321	SS 27A	138.5-139	CL	0.0	35.2	64.8	28.1	36.7	21.7	48	15	33		
B-2321	SS 27B	139.0-140	SC	0.0	50.8	49.2	31.9	17.3		26	16	10		
B-2321	SS 28	148.5-150	SC-SM	0.1	67.7	32.2	26.7	5.5	15.7	17	12	5	2.65	
B-2352	SS 1	0-1.5	CL	0.0	44.7	55.3	45.0	10.3	22.8	37	20	17		5.3
B-2352	SS 2	3.4-4.9	CL	0.0	34.0	66.0	37.9	28.1	16.9	43	19	24		1.8
B-2352	SS 3	6.6-8.1	CL	0.7	21.8	77.5	49.7	27.8	18.8	32	20	12	2.66	1.8
B-2352	SS 4	8.6-10.1	CL	0.0	31.2	68.8	35.7	33.1	19.6	31	14	17		
B-2352	SS 5	11-12.5	CH	0.0	6.9	93.1	26.1	67.0	17.4	56	22	34		
B-2352	SS 6	13.5-15.0	CL	0.0	16.0	84.0	60.7	23.3	22.0	33	16	17		
B-2352	SS 7	18.6-20.1	CL	0.0	10.1	89.9	46.1	43.8	23.1	47	19	28		
B-2352	SS 8	23.5-25.0	CH	0.0	5.0	95.0	40.9	54.1	22.1	53	21	32		
B-2352	SS 9	28.5-30.0	CH	0.0	4.5	95.5	15.2	80.3	27.7	79	33	46		
B-2352	SS 10	33.5-35.0	CH	0.0	3.0	97.0	18.6	78.4	22.9	72	26	46		
B-2352	SS 11	38.5-40.0	CL	0.0	23.9	76.1	51.3	24.8	22.2	31	16	15		
B-2352	SS 12	43.5-45.0	SC[1]	0.0	53.7	46.3							2.66	
B-2352	SS 13	48.6-50.1	SC[1]	0.0	85.1	14.9								
B-2352	SS 14	53.5-55.0	SC[1]	0.0	80.5	19.5								
B-2352	SS 15	58.6-60.1	CL	0.0	27.4	72.6	30.1	42.5	24.4	44	14	30	2.67	
B-2352	SS 16	63.5-65	CL	1.3	47.9	50.8	21.3	29.5	20.5	35	12	23		
B-2352	SS 17	68.6-70.1	CH	0.0	6.8	93.2	29.0	64.2	25.1	59	18	41		
B-2352	SS 18	73.5-75	SP-SM[1]	0.2	90.8	9.0								
B-2352	SS 19	78.5-80	SC[1]	8.6	77.8	13.6							2.66	
B-2352	SS 20	83.6-85.1	SP-SM[1]	4.8	86.4	8.8								
B-2352	SS 21	88.5-90	SM[1]	3.9	82.9	13.2								

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.1
SUMMARY OF SOIL INDEX TEST RESULTS FOR SPLIT SPOON SAMPLES
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)
B-2352	SS 22	93.6-95.1	SC[1]	0.6	83.6	15.8								
B-2352	SS 23	98.5-100	SM[1]	0.0	66.8	33.2								
B-2352	SS 24	108.5-110	SM[1]	0.0	70.3	29.7								
B-2352	SS 25	118.6-120.1	SC	0.0	65.5	34.5	13.9	20.6	19.9	26	15	11		
B-2352	SS 26	128.6-130.1	SC[1]	0.0	77.1	22.9								
B-2352	SS 27	138.4-139.9	SM[1]	0.0	87.4	12.6								
B-2352	SS 28	148.5-150	CL	0.0	19.3	80.7	41.0	39.7	21.5	36	14	22	2.67	
B-2359	SS 1	0-1.5	SM	0.0	58.3	41.7	27.0	14.7	9.1	21	20	1		2.1
B-2359	SS 2	3.5-5	CL	0.0	37.9	62.1	20.8	41.3	18.7	44	16	28		1.7
B-2359	SS 3	6-7.5	CL	0.0	30.9	69.1	27.2	41.9	19.0	38	13	25	2.68	1.5
B-2359	SS 4	8.5-10	CL	0.0	23.7	76.3	33.1	43.2	19.1	32	12	20		
B-2359	SS 5	11-12.5	CH	0.0	1.6	98.4	38.9	59.5	17.7	51	17	34		
B-2359	SS 6	13.5-15	CL	0.0	20.4	79.6	40.6	39.0	15.9	37	15	22		
B-2359	SS 7	19.8-21.3	SP-SM[1]	0.0	93.9	6.1							2.66	
B-2359	SS 8	24.8-26.3	SP[1]	0.0	95.1	4.9								
B-2359	SS 9	29.8-31.3	CH	0.0	2.9	97.1	11.2	85.9	26.8	78	25	53		
B-2359	SS 10	34.8-36.3	CH	0.0	1.3	98.7	16.7	82.0	25.3	70	16	54	2.70	
B-2359	SS 11	39.8-41.3	CH	0.0	8.6	91.4	29.1	62.3	25.3	53	22	31		
B-2359	SS 12	44.8-46.3	SM[1]	0.0	84.5	15.5							2.66	
B-2359	SS 13	49.8-51.3	SC[1]	0.0	58.6	41.4								
B-2359	SS 14	54.8-56.3	SC[1]	0.0	74.1	25.9								
B-2359	SS 15A	59.8-60.7	SC[1]	0.0	86.6	13.4								
B-2359	SS 16	64.8-66.3	SC	0.0	60.0	40.0	18.4	21.6	22.8	23	13	10	2.66	
B-2359	SS 17	69.8-71.3	CL	0.0	41.5	58.5	23.7	34.8	15.8	37	15	22		
B-2359	SS 18A	74.8-76.1	SC-SM	0.0	62.6	37.4	21.4	16.0	18.3	24	19	5		
B-2359	SS 18B	76.1-76.3							27.3					
B-2359	SS 19	79.8-81.3	SC[1]	0.0	73.7	26.3								
B-2359	SS 20	84.8-86.3	SP-SC[1]	0.0	90.9	9.1							2.66	
B-2359	SS 21	89.8-91.3	SP-SC[1]	0.0	93.0	7.0								
B-2359	SS 22	94.8-96.3	SP-SC[1]	0.0	94.4	5.6								
B-2359	SS 23	99.8-101.3	SC[1]	0.0	84.1	15.9								
B-2359	SS 24	109.8-111.3	CH	0.0	10.0	90.0	22.7	67.3	26.6	63	19	44	2.69	
B-2359	SS 25	119.8-121.3	CH	0.0	35.2	64.8	19.5	45.3	21.0	54	18	36		
B-2359	SS 26	129.8-131.3	SC[1]	0.3	71.9	27.8	14.1	13.7						
B-2359	SS 27	139.8-141.3	SC[1]	0.0	72.0	28.0	12.4	15.6						
B-2359	SS 28	149.8-151.3	SC[1]	0.9	85.4	13.7	2.1	11.6						

1 Classification is based on quantitative and qualitative (visual inspection) information.
Underlined Values: Test not assigned but testing completed
Information not available or test not assigned

LL= Liquid Limit
PL= Plastic Limit
PI = Plasticity Index
G_s = Specific Gravity
NV= No Value
NP= Non-Plastic

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.2
SUMMARY OF SOIL INDEX TEST RESULTS FOR TEST PITS
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)	Modified Proctor Max. Dry Density (pcf)	Modified Proctor w_{opt} (%)
TP-2310	S-1	0-1.0							17.1					1.7		
TP-2310	S-2	5.0							13.7					0.8		
TP-2310	S-3	7.5							15.2							
TP-2310	S-4	10.0							8.3							
TP-2310	Bulk-1	5.0	CL	0.0	42.4	57.6	17.2	40.4	*13.7*	33	15	18	2.69	*0.8*	123.5	12.0
TP-2310	Bulk-2	10.0	SC-SM	0.0	71.1	28.9	9.0	19.9	*8.3*	24	17	7	2.66		128.5	9.5
TP-2314	S-1	0-1.0							16.9					1.3		
TP-2314	S-2	5.0							20.1					6.7		
TP-2314	S-3	7.0							19.1							
TP-2314	S-4	10.0							22.7							
TP-2314	Bulk-2	5.0-10.0	CH	0.0	4.3	95.7	22.7	73.0	22.7	54	23	31	2.72		113.5	16.5
TP-2317	S-1	1.0							17.5					3.9		
TP-2317	S-2	3.5-5.0							19.1					2.1		
TP-2317	S-3	5.0-8.0							16.4							
TP-2317	S-4	8.0-10.0							13.9							
TP-2317	Bulk-1	3.0-5.0	CL	0.0	31.0	69.0	22.5	46.5	*19.1*	48	24	24	2.67	*2.1*	122.0	13.0
TP-2317	Bulk-2	5.0-10.0	CL	0.0	20.5	79.5	34.0	45.5	*16.4*	45	17	28	2.70		123.5	12.5
TP-2319	S-1	1.0							13.1					1.0		
TP-2319	S-2	3.5-5.0							13.1					2.7		
TP-2319	S-3	6.5							13.0							
TP-2319	S-4	10.0							9.8							
TP-2319	Bulk-2	3.0-10.0	SC	0.0	52.7	47.3	17.7	29.6	*13.0*	32	22	10	2.67		125.0	11.0
TP-2320	S-1	1.0							21.2					2.8		
TP-2320	S-2	4.0							15.2					1.9		
TP-2320	S-3	5.0-10.0							12.0					2.6		
TP-2320	S-4	10.0							9.3							
TP-2320	Bulk-1	5.0	CL	0.0	38.2	61.8	19.3	42.5	*12.0*	42	17	25	2.69	*2.6*	122.5	12.5
TP-2320	Bulk-2	5.0-10.0	CL	0.0	29.6	70.4	26.4	44.0	*9.3*	41	16	25	2.67		126.5	11.5

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.2
SUMMARY OF SOIL INDEX TEST RESULTS FOR TEST PITS
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)	Modified Proctor Max. Dry Density (pcf)	Modified Proctor w_{opt} (%)
TP-2321	S-1	1.0							30.2					6.9		
TP-2321	S-2	4.0							15.3					3.6		
TP-2321	S-3	7.0							16.0							
TP-2321	S-4	10.0							14.2							
TP-2321	Bulk-1	4.0-5.0	CH	0.0	28.0	72.0	23.3	48.7	*15.3*	51	20	31	2.70	*3.6*	116.0	14.5
TP-2321	Bulk-2	6.5-10.0	CL	0.0	19.0	81.0	29.8	51.2	*16.0*	49	19	30	2.70		120.0	13.5
TP-2332	S-1	2.0							13.4					1.0		
TP-2332	S-5	2.5							18.9					3.4		
TP-2332	S-2	5.0							12.5					1.9		
TP-2332	S-3	7.0							10.9							
TP-2332	S-4	10.0							7.7							
TP-2332	Bulk-2	3.0-10.0	SM[1]	0.0	80.0	20.0			*10.9*				2.66	*1.9*	122.0	11.0
TP-2334	S-1	1.0							16.7					2.0		
TP-2334	S-2	2.0-5.0							14.8					4.3		
TP-2334	S-3	7.0							15.2							
TP-2334	S-4	10.0							13.0							
TP-2334	Bulk-1	2.0-5.0	CL	0.0	32.0	68.0	30.2	37.8	*14.8*	44	13	31	2.72	*4.3*	123.0	11.5
TP-2334	Bulk-2	5.0-10.0	SC	0.0	52.6	47.4	22.4	25.0	*15.2*	31	12	19	2.67		127.5	10.0
TP-2335	S-1	2.0							22.8					2.2		
TP-2335	S-2	4.0							14.9					2.1		
TP-2335	S-3	6.0							11.2					3.9		
TP-2335	S-4	10.0							7.3							
TP-2335	Bulk-2	4.0-8.0	CL	0.0	46.4	53.6	21.3	32.3	*11.2*	37	14	23	2.67	*3.9*	124.5	11.5
TP-2335	Bulk-3	8.0-10	SM[1]	0.0	75.2	24.8			*7.3*				2.66		122.0	11.0
TP-2337	S-1	1.0							21.4					3.0		
TP-2337	S-2	4.0							18.7					3.1		

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.2
SUMMARY OF SOIL INDEX TEST RESULTS FOR TEST PITS
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)	Modified Proctor Max. Dry Density (pcf)	Modified Proctor w_{opt} (%)
TP-2337	S-3	7.0							17.8					4.3		
TP-2337	S-4	10.0							17.2							
TP-2337	Bulk-1	4.0-5.0	CL[1]	0.0	38.3	61.7			*18.7*				2.66	*3.1*	122.0	11.5
TP-2337	Bulk-2	10.0	CL	0.0	25.0	75.0	31.0	44.0	*17.2*	41	16	25	2.69		121.0	12.0
TP-2351	S-1	1.0							31.2					5.7		
TP-2351	S-2	4.0							13.0					1.1		
TP-2351	S-3	6.0							7.7							
TP-2351	S-4	3.5-10.0							6.9							
TP-2351	Bulk-2	3.5-10.0	SC	0.0	61.8	38.2	14.3	23.9	*13.0*	29	13	16	2.66		125.0	11.5
TP-2352	S-1	1.0							22.5					2.3		
TP-2352	S-2	4.0-5.0							17.0					1.4		
TP-2352	S-3	7.0							21.9					3.4		
TP-2352	S-4	10.0							17.2							
TP-2352	Bulk-1	4.0-5.0	CL[1]	0.0	33.1	66.9			*17.0*				2.66	*1.4*	122.5	11.0
COMPOSITE A (TP-2319 & TP-2334)		NA	SC	0.0	53.6	46.4	10.6	35.8	12.7	34	12	22	2.66	0.7	126.0	10.5
COMPOSITE B (TP-2317 & TP-2334)		NA	CL	0.0	26.4	73.6	23.5	50.1	18.1	44	15	29	2.69	1.5	121.0	12.5

1 Classification is based on quantitative and qualitative (visual inspection) information.
Underlined Values: Test conducted but not assigned
Information not available or test not assigned
Italic Values Natural Moisture and/or organic content for bulk samples selected from jar sample within the depth range of the bulk sample.

LL= Liquid Limit
PL= Plastic Limit
PI = Plasticity Index
G_s = Specific Gravity
w_{opt}= optimum moisture content

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.3
SUMMARY OF SOIL INDEX TEST RESULTS FOR UNDISTURBED SAMPLES
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)
B-2302UD	UD 3	13.5-16.0	SM	0.0	73.8	26.2	13.9	12.3	17.4	NV	NP	NP	2.67	
B-2302UD	UD 7	59.0-60.1	SC-SM	0.5	66.5	33.0	20.3	12.7	20.1	22	16	6	2.71	
B-2302UD	UD 9	63.6-65.6	SP-SM[1]	0.0	91.9	8.1			21.2				2.68	
B-2302UD	UD 10	66.0-68.6	CH	0.0	13.2	86.8	30.3	56.5	22.5	50	22	28	2.74	
B-2302UD	UD 11	69.6-71.6	CH	0.3	14.4	85.3	21.7	63.6	24.2	59	25	34	2.74	
B-2302UD	UD 12	78.5-80.5	CH	2.7	14.3	83.0	22.9	60.1	20.9	64	21	43	2.68	
B-2302UD	UD 14	108.5-111	SM[1]	0.0	77.5	22.5			17.8				2.71	
B-2302UD	UD 16	120.5-122.5	CH	0.0	12.9	87.1	11.0	76.1	25.5	76	16	60	2.72	
B-2302UD	UD 19	145.5-147.3	CL	0.0	4.2	95.8	34.1	61.7	19.4	49	15	34	2.69	
B-2304UD	UD 2	11-13.3	ML[1]	0.3	42.9	56.8			11.9				2.74	
B-2304UD	UD 7	73.5-75.5	MH	0.0	3.5	96.5	2.6	93.9	27.6	69	34	35	2.78	
B-2304UD	UD 8	83.5-85.5	CH	0.1	6.2	93.7	11.1	82.6	30.2	61	26	35	2.71	
B-2304UD	UD 9	98.5-101.0	CH	0.0	16.3	83.7	17.1	66.6	22.8	62	25	37	2.74	
B-2304UD	UD 11	111.0-113.0	CH	0.0	0.9	99.1	21.9	77.2	22.2	77	19	58	2.72	
B-2304UD	UD 13	121.0-123.0	CH	0.0	7.1	92.9	20.2	72.7	19.8	62	18	44	2.71	
B-2304UD	UD 15	141.0-143.5	SP-SM[1]	0.0	93.5	6.5			17.9				2.68	
B-2319UD	UD 2	5.5-7.5	SC	0.0	55.8	44.2	10.2	34.0	13.7	37	16	21	2.73	
B-2319UD	UD 3	11.0-13.0	SM[1]	0.0	83.1	16.9			6.1				2.72	
B-2319UD	UD 4	25.0-27.0	CH	0.0	19.7	80.3	22.1	58.2	20.3	61	16	45	2.72	
B-2319UD	UD 5	35.0-37.0	ML[1]	0.0	16.2	83.8			18.8				2.72	
B-2319UD	UD 6	55.0-57.0	ML[1]	1.0	39.2	59.8			30.7				2.71	
B-2319UD	UD 7	65.0-67.0	CL	0.0	45.3	54.7	27.7	27.0	19.5	39	17	22	2.66	
B-2319UD	UD 8	75.0-77.0	SP-SM	0.0	89.2	10.8	4.2	6.6	24.6	NV	NP	NP	2.73	
B-2319UD	UD 10	95.0-97.0	SP	1.7	93.8	4.5			19.3				2.72	
B-2321UD	UD 1	3.5-5.2	CL	0.0	29.9	70.1	19.1	51.0	17.4	42	13	29	2.71	
B-2321UD	UD 3	10.0-11.7	CH	0.0	6.5	93.5	37.7	55.8	17.1	51	16	35	2.71	
B-2321UD	UD 4	13.5-15.2	CH	0.0	7.8	92.2	14.2	78.0	21.8	81	22	59	2.72	
B-2321UD	UD 5	17.0-18.7	CL	0.0	9.6	90.4	50.7	39.7	19.1	40	15	25	2.72	
B-2321UD	UD 6	28.5-30.2	CH	0.0	5.3	94.7	19.4	75.3	23.9	75	20	55	2.72	
B-2321UD	UD 7	38.5-40.2	CH	0.0	8.7	91.3	32.5	58.8	21.3	60	23	37	2.78	
B-2321UD	UD 8	48.5-50.2	CH	0.0	3.0	97.0	17.6	79.4	28.5	64	16	48	2.72	
B-2321UD	UD 9	58.5-61.0	CL	0.0	23.0	77.0	19.4	57.6	19.6	49	14	35	2.68	
B-2321UD	UD 10	63.0-65.5	CL	0.0	39.9	60.1	21.7	38.4	13.7	36	14	22	2.67	
B-2321UD	UD 12	93.0-95.7	SP-SM[1]	0.2	92.8	7.0			22.7				2.69	
B-2321UD	UD 14	128.5-130.3	CH	4.2	15.2	80.6	18.5	62.1	25.0	58	27	31	2.75	
B-2321UD	UD 15	130.5-132.5	CH	1.1	21.9	77.0	19.3	57.7	20.6	61	17	44	2.71	
B-2352UD	UD 1	3.5-5.2	CL	0.0	31.7	68.3	24.1	44.2	17.3	46	19	27	2.70	1.0
B-2352UD	UD 3	11.5-13.2	CL	0.0	14.1	85.9	38.4	47.5	18.4	39	18	21	2.71	
B-2352UD	UD 5	24-25.7	CH	0.0	3.5	96.5	16.5	80.0	28	67	29	38	2.67	
B-2352UD	UD 8	68.0-69.4	SM[1]	5.1	75.9	19.0			14.4				2.68	

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.3
SUMMARY OF SOIL INDEX TEST RESULTS FOR UNDISTURBED SAMPLES
EXELON (Victoria) COL PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Number	Sample Number	Depth Sample (ft)	USCS Symbol	Gravel (%)	Sand (%)	Fines (%)	Silt (%)	0.005 mm Clay (%)	Natural Moisture (%)	LL (%)	PL (%)	PI (%)	G_s	Organic Content (%)
B-2359UD	UD 3	30.8-32.8	CH	0.0	3.6	96.4	14.7	81.7	30.2	66	30	36	2.78	
B-2359UD	UD 4	35.0-36.7	CH	0.0	1.8	98.2	17.7	80.5	21.6	68	17	51	2.73	
B-2359UD	UD 5	40.0-41.7	CH	0.0	6.6	93.4	18.9	74.5	20.2	65	18	47	2.71	
B-2359UD	UD 7	55.0-56.7	ML[1]	0.0	37.2	62.8			14.3				2.65	
B-2359UD	UD 10	70.0-71.5	CH	0.0	4.0	96.0	12.6	83.4	16.7	95	34	61	2.72	
B-2359UD	UD 11	77.0-78.7	SC-SM	0.0	62.5	37.5	21.7	15.8	19.4	23	19	4	2.72	
B-2359UD	UD 12	80.0-81.7	SC	0.5	60.7	38.8	14.6	24.2	18.2	26	14	12	2.66	
B-2359UD	UD 14	88.0-90.5	ML[1]	0.0	45.5	54.5			25.3				2.74	
B-2359UD	UD 17	110-111.7	SM	1.6	64.8	33.6	11.0	22.6	17.4	21	18	3	2.71	
B-2359UD	UD 18	112.0-113.1	SC	0.0	81.7	18.3	1.5	16.8	25.5	27	15	12	2.77	
B-2359UD	UD 19	114.0-116.5	SM[1]	0.0	86.5	13.5			17.3				2.70	
B-2359UD	UD 20	120.0-121.7	CH	0.0	4.6	95.4	32.0	63.4	34.0	51	15	36	2.72	

1 Classification is based on quantitative and qualitative (visual inspection) information.
Underlined Values: Test was conducted eventhough it had not been assigned
Information not available or test not assigned

LL= Liquid Limit NV= No Value
PL= Plastic Limit NP= Non-Plastic
PI = Plasticity Index
G_s = Specific Gravity

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.4
SUMMARY OF UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION TEST RESULTS
EXELON TEXAS COL (Victoria) PROJECT
COOLING BASIN
MACTEC PROJECT NO. 6468-07-1777

Boring No.	Sample No.	Sample Depth (ft)	USCS Symbol	Initial Dry Unit Weight (pcf)	Void Ratio	Specific Gravity	Initial Moisture Content (%)	Confining Stress (psi)	Confining Stress (tsf)	Undrained Shear Strength (tsf)
B-2302UD	UD 11	69.5-71.5	CH	101.0	0.69	2.74	18.5	50.0	3.60	1.54
B-2304UD	UD 7	73.5-75.5	MH	92.3	0.9	2.78	27.6	55.0	3.96	1.64
B-2304UD	UD 9	98.5-101.0	CH	101.5	0.69	2.74	22.8	65.0	4.68	2.44
B-2319UD	UD 2	5.5-7.5	SC	117.1	0.46	2.73	13.7	5.0	0.36	2.16
B-2319UD	UD 8	75.0-77.0	SP-SM	98.7	0.73	2.73	24.6	55.0	3.96	6.19
B-2321UD	UD 7	38.5-40.2	CH	106.6	0.63	2.78	14.8	35.0	2.52	1.96
B-2352UD	UD 1	3.5-5.2	CL	110.8	0.52	2.70	18.3	5.0	0.36	1.33
B-2352UD	UD 3	11.5-13.2	CL	108.7	0.56	2.71	18.6	10.0	0.72	1.21
B-2352UD	UD 5	24-25.7	CH	100.7	0.66	2.67	22.7	20.0	1.44	1.21
B-2359UD	UD 11	77.0-78.7	SC-SM	101.9	0.67	2.72	19.9	55.0	3.96	3.81
B-2359UD	UD 17	110-111.7	SM	106.9	0.58	2.71	17.4	70.0	5.04	2.90

Notes: (1) USCS Symbol also presented in Table 4.3

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TABLE 4.5
SUMMARY OF CONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION TEST RESULTS
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Borehole	Sample No.	Sample Depth (ft)	USCS	Initial Dry Unit Weight (pcf)	Initial Moisture Content (%)	Triaxial Test Data (1)			
						c (tsf)	φ (°)	c' (tsf)	φ' (°)
B-2302UD	UD 3	13.5-16.0	SM	99.3 107.2	17.7 17.1	1.85	29	0	35
B-2302UD	UD 7	59.0-60.2	SC-SM	106.4	20.1	-	-	-	-
B-2304UD	UD 8	83.5-85.5	CH	90.8	30.9	-	-	-	-
B-2304UD	UD 11	111.0-113.0	CH	93.5	30.6	-	-	-	-
B-2304UD	UD 13	121.0-123.0	CH	110.0	21.0	-	-	-	-
B-2319UD	UD 4	25.0-27.0	CH	105.3	21.4	-	-	-	-
B-2319UD	UD 7	65.0-67.0	CL	103.6	21.0	-	-	-	-
B-2321UD	UD 3	10.0-11.7	CH	110.3	18.8	-	-	-	-
B-2321UD	UD 5	17.0-18.7	CL	100.2	18.8	-	-	-	-
B-2321UD	UD 9	58.5-61.0	CL	106.6	20.0	-	-	-	-
B-2321UD	UD 15	130.5-132.5	CH	106.8	20.3	-	-	-	-
B-2359UD	UD 5	40.0-41.7	CH	103.4	22.0	-	-	-	-
B-2359UD	UD 10	70.0-71.7	CH	114.1	16.6	-	-	-	-

Notes: (1)
- φ = Total stress internal friction angle
- c = Total stress cohesion intercept
- φ' = Effective stress internal friction angle
- c' = Effective stress cohesion intercept
- \- Not possible to determine shear strength parameters from a one point test

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Prepared By: ZHU Date: 7/16/08
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TABLE 4.6
SUMMARY OF DIRECT SHEAR TEST RESULTS
EXELON TEXAS COL (Victoria) PROJECT
COOLING BASIN
MACTEC PROJECT NO. 6468-07-1777

Boring No.	Sample No.	Sample Depth (ft)	USCS Symbol(1)	Initial Dry Unit Weight (2) (pcf)	Initial Void Ratio (2)	Specific Gravity	Initial Moisture Content (2) (%)	Normal Stress (tsf)	Shear Strength c (tsf)	Shear Strength φ (°)
B-2302UD	UD 9	63.5-66	SP-SM	103.0	0.63	2.68	21.1	1.44, 3.24, 6.48	0.17	37.6
B-2302UD	UD 14	108.5-111	SM	110.2	0.54	2.71	17.8	2.16, 4.33, 8.70	0.51	35.5
B-2304UD	UD 2	11-13.3	ML	98.6	0.74	2.74	11.9	0.37, 0.73, 1.48	0.00	40.2
B-2304UD	UD 15	141.0-143.5	SP-SM	99.2	0.69	2.68	17.9	2.91, 5.77, 11.55	0.75	39.4
B-2321UD	UD 12	93.0-95.7	SP-SM	101.2	0.66	2.69	22.7	2.16, 4.33, 8.70	0.60	35.2
B-2352UD	UD 8	68.0-69.4	SM	107.3	0.56	2.68	14.4	1.82, 3.59, 7.22	0.72	39.4
B-2359UD	UD 7	55.0-56.7	ML	108.4	0.53	2.65	14.3	1.48, 3.29, 6.49	0.24	37.9
B-2359UD	UD 14	88.5-90.5	ML	96.6	0.78	2.74	25.3	2.16, 8.7	0.00	34.5
B-2359UD	UD 19	114.0-116.6	SM	105.7	0.60	2.70	17.3	2.57, 5.36, 10.31	0.94	36.9

Notes:
(1) USCS Symbol also presented in Table 4.3
(2) Value shown are the average of three samples
(3) φ = Total stress internal friction angle
c = Total stress cohesion intercept

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TABLE 4.7
SUMMARY OF DIRECT SIMPLE SHEAR TEST RESULTS
EXELON TEXAS COL (Victoria) PROJECT
COOLING BASIN
MACTEC PROJECT NO. 6468-07-1777

Boring No.	Sample No.	Sample Depth (ft)	USCS Symbol[3]	Initial Moisture Content [2] (%)	Vertical Consolidation Stress (ksf)	Failure Conditions[1] (at peak shear stress)		
						τ_h (ksf)	γ (%)	σ_v' (ksf)
2302UD	UD-12	78.5-80.5	CH	20.8	7.91	3.95	15.1	7.37
2302UD	UD-16	120.5-122.5	CH	25.1	10.85	5.52	8.5	9.62
2302UD	UD-19	145.5-147.3	CH	19.4	12.25	7.67	10.5	9.47
2304UD	UD-8	83.5-85.5	CH	30.0	8.66	2.78	6.2	6.93
2304UD	UD-11	111.0-113	CH	21.8	10.09	5.69	5.2	8.33
2304UD	UD-13	121.0-123.0	CH	18.0	10.81	6.14	7.5	8.45
2319UD	UD-4	25.0-27.0	CH	18.7	2.93	2.42	20.3	4.72
2319UD	UD-7	65.0-67.0	CL	20.3	7.20	4.46	15.7	4.41
2321UD	UD-1	3.5-5.2	CL	18.3	0.76	0.33	29.6	0.44
2321UD	UD-3	10.0-11.7	CH	16.8	1.46	1.41	29.4	2.15
2321UD	UD-4	13.5-15.2	CH	21.7	1.46	0.99	23.7	1.69
2321UD	UD-5	17.0-18.7	CL	19.5	2.22	0.82	11.7	1.22
2321UD	UD-6	28.5-30.2	CH	25.0	3.63	1.34	23.8	2.49
2321UD	UD-8	48.5-50.2	CH	29.9	5.78	2.90	3.9	4.44
2321UD	UD-9	58.5-61.0	CL	19.8	6.48	2.17	10.1	4.80
2321UD	UD-10	63.0-65.5	CL	15.2	7.18	3.36	14.9	6.51
2321UD	UD-15	130.5-132.5	CH	18.9	11.55	5.07	15.7	9.41
2359UD	UD-4	35.0-36.7	CH	22.3	4.35	2.58	11.8	5.36
2359UD	UD-5	40.0-41.7	CH	23.0	5.05	2.38	8.8	5.19
2359UD	UD-10	70.0-71.5	CH	17.4	7.22	3.78	12.7	7.22
2359UD	UD-12	80.0-81.7	SC	19.4	8.01	4.41	25.0	7.70
2359UD	UD-20	120.0-121.7	CH	36.3	10.79	2.95	2.4	8.68

Notes:
(1) τ_h = horizontal shear stress, γ=shear strain, σ_v'=effective vertical stress
(2) Classifications are based on available quantitative data and visual inspection.
(3) USCS Symbol also presented in Table 4.3

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Prepared By: ZHU 7/16/08
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TABLE 4.8
SUMMARY OF CONSOLIDATION (LOAD CONTROLLED) TEST RESULTS
EXELON TEXAS COL (Victoria) PROJECT
COOLING BASIN
MACTEC PROJECT NO. 6468-07-1777

Boring Number	Sample No.	Sample Depth (ft)	USCS Symbol(1)	Specific Gravity(1)	σ_v' (3) (psf)	Dry Unit Weight (2) (pcf)	Moisture Content (2) (%)	Consolidation Test Results		
								p_c(3) (ksf)	C_c (3)	C_r (3)
B-2302UD	11	69.5-71.5	CH	2.74	7500	96.8	24.2	12.7	0.189	0.025
B-2304UD	7	73.5-75.5	MH	2.78	7800	92.6	29.8	18.0	0.226	0.028
B-2304UD	9	98.5-101	CH	2.74	9400	99.8	25.8	17.7	0.196	0.027
B-2319UD	2	5.5-7.5	SC	2.73	800	116.2	13.7	26.0	0.110	0.003
B-2319UD	8	75-77	SP-SM	2.73	7900	96.6	25.3	17.9	0.050	0.010
B-2321UD	7	38.5-40.2	CH	2.78	4900	101.9	21.3	10.4	0.153	0.032
B-2321UD	14	128.5-130	CH	2.75	11200	96.8	25.5	11.2	0.203	0.033
B-2352UD	1	3.5-5.2	CL	2.7	500	111.5	17.3	12.2	0.149	0.003
B-2352UD	3	11.5-13.2	CL	2.71	1500	108.8	18.4	13.4	0.156	0.020
B-2352UD	5	24.0-25.7	CH	2.67	3100	94.4	28.0	14.8	0.189	0.010
B-2359UD	3	30.8-32.8	CH	2.78	4000	91	30.2	15.5	0.252	0.035
B-2359UD	11	77.0-78.7	SC-SM	2.72	8000	106.2	19.4	22.7	0.050	0.002
B-2359UD	18	112-113.1	SC	2.77	10200	92.4	25.5	24.2	0.186	0.025

(1) USCS Symbol, and Specific Gravity values are also presented in Table 4.3.

(2) Dry unit weight and moisture content values shown were determined prior to beginning test procedure.

(3) σ_v' = Overburden Pressure; p_c = Preconsolidation Pressure; C_c = Coefficient of Consolidation; C_r = Coeffiecient of Recompression

Prepared By: ZHU 7/16/08
Checked By: KAW 7/16/08

TABLE 4.9
SUMMARY OF CONSOLIDATION (CONSTANT RATE OF STRAIN) TEST RESULTS
EXELON TEXAS COL (Victoria) PROJECT
COOLING BASIN
MACTEC PROJECT NO. 6468-07-1777

Boring Number	Sample No.	Sample Depth (ft)	USCS Symbol(1)	Specific Gravity(1)	σ_v' (2) (ksf)	Moisture Content (3) (%)	Consolidation Test Results		
							p_c(4) (ksf)	C_c(4)	C_r(4)
B-2302UD	UD-12	80.2	CH	2.68	8.1	20.9	28.2	0.163	0.036
B-2302UD	UD-16	122.2	CH	2.72	10.8	25.5	30.0	0.181	0.103
B-2302UD	UD-19	147.0	CL	2.69	12.3	21.5	30.0	0.155	0.040
B-2304UD	UD-8	85.3	CH	2.71	8.5	29.6	26.6	0.180	0.083
B-2304UD	UD-11	112.9	CH	2.71	10.2	21.7	33.3	0.150	0.068
B-2304UD	UD-13	123.0	CH	2.71	10.8	18.6	28.2	0.145	0.045
B-2319UD	UD-4	26.7	CH	2.72	3.3	19.2	30.0	0.126	0.053
B-2319UD	UD-7	66.6	CL	2.66	7.3	18.8	19.6	0.095	0.009
B-2321UD	UD-1	5.2	CL	2.71	0.7	17.4	3.8	0.100	0.018
B-2321UD	UD-3	11.4	CH	2.71	1.4	15.4	6.0	0.102	0.025
B-2321UD	UD-4	15.2	CH	2.72	1.9	21.8	9.3	0.104	0.027
B-2321UD	UD-5	18.7	CL	2.72	2.3	19.5	10.0	0.113	0.012
B-2321UD	UD-6	30.2	CH	2.72	3.8	23.9	16.0	0.125	0.040
B-2321UD	UD-8	49.8	CH	2.72	6.2	28.5	23.3	0.165	0.055
B-2321UD	UD-9	59.5	CL	2.68	6.8	19.3	15.7	0.115	0.054
B-2321UD	UD-10	65.1	CL	2.67	7.2	13.7	31.0	0.110	0.029
B-2321UD	UD-15	132.5	CH	2.71	11.4	21.0	13.1	0.120	0.020
B-2359UD	UD-4	36.5	CH	2.73	4.6	21.6	43.9	0.141	0.065
B-2359UD	UD-5	41.2	CH	2.71	5.1	18.4	39.9	0.155	0.070
B-2359UD	UD-10	71.6	CH	2.72	7.6	16.8	26.1	0.125	0.035
B-2359UD	UD-12	80.3	SC	2.66	8.1	18.2	27.0	0.084	0.010
B-2359UD	UD-20	121.3	CH	2.72	10.7	34.0	40.0	0.273	0.064

(1) USCS Symbol and Specific Gravity values are also presented in Table 4.3.
(2) σ_v' = Approximate effective overburden pressure assuming soil total unit weight is 125 pcf and the groundwater is at 50 ft
(3) Average moisture content
(4) p_c= preconsolidation pressure; C_c = Coefficient of Consolidation; C_r = Coeffiecient of Recompression

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.10
SUMMARY OF HYDRAULIC CONDUCTIVITY TEST RESULTS
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Boring No.	Sample No.	Sample Depth (ft)	USCS Symbol (2)	Initial Dry Unit Weight (pcf)	Specific Gravity	Initial Moisture Content (%)	Confining Stress (psi)	Hydraulic Conductivity (k_{20}) (cm/s)
B-2319UD	UD 3	11.0-13.0	SM(1)	102.8	2.72	8.7	10.0	8.5E-04
B-2319UD	UD 4	25.0-27.0	CH	106.5	2.72	20.7	20.0	3.4E-09
B-2319UD	UD 5	35.0-37.0	ML(1)	106.2	2.72	18.8	30.0	1.1E-06
B-2319UD	UD 6	55.0-57.0	ML(1)	91.9	2.71	30.7	45.0	1.5E-06
B-2319UD	UD 10	95.0-97.0	SP	103.2	2.72	11.2	65.0	7.7E-04
B-2321UD	UD 3	10.0-11.7	CH	111.9	2.71	16.4	10.0	8.3E-06
B-2321UD	UD 6	28.5-30.2	CH	96.4	2.72	25.5	25.0	1.8E-08
B-2321UD	UD 7	38.5-40.2	CH	102.8	2.78	21.0	35.0	8.4E-09
B-2321UD	UD 12	93.0-95.7	SP-SM(1)	101.9	2.69	21.3	60.0	1.1E-04
B-2321UD	UD 14	128.5-130.3	CH	97.0	2.75	25.0	75.0	2.5E-09

Notes:
(1) Classification is based on quantitative and qualitative (visual inspection) information.
(2) USCS Symbol is also presented in Table 4.3

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.11
SUMMARY OF
TRIAXIAL COMPRESSION TEST RESULTS
FOR COMPOSITE SOILS
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING BASIN

Sample	USCS	Specimen No.	Initial Dry Unit Weight (pcf)	Initial Moisture Content (%)	Triaxial Test Data[1]			
					c (ksf)	φ (°)	c' (ksf)	φ' (°)
COMPOSITE A (TP-2319 & TP-2334)	SC	A	119.0	14.5	1.22	14.6	0.50	25.1
		B	120.2	14.0				
		C	119.2	14.0				
COMPOSITE B (TP-2317 & TP-2334)	CL	A	114.2	16.3	0.74	14.4	0.38	26.1
		B	114.9	16.8				
		C	115.4	16.2				

Notes: (1) φ = Total stress internal friction angle
c = Total stress cohesion intercept
φ' = Effective stress internal friction angle
c' = Effective stress cohesion intercept

Prepared By: ZHU Date: 7/16/08
Checked By: KAW Date: 7/16/08

TABLE 4.12
SUMMARY OF DIRECT SIMPLE SHEAR TEST RESULTS FOR COMPOSITE SOILS
EXELON TEXAS COL (Victoria) PROJECT
COOLING BASIN
MACTEC PROJECT NO. 6468-07-1777

Boring No.	USCS Symbol(1)	Sample No.	Initial Moisture Content (%)	Vertical Consolidation Stress (ksf)	Failure Conditions(2) (at peak shear stress)		
					τ_h (ksf)	γ (%)	σ_v' (ksf)
Composite A TP-2319 & TP-2334	SC	A	14.0	2.71	1.29	28.6	1.98
		B	13.9	4.32	2.78	25.2	5.17
		C	13.9	8.75	3.90	23.3	7.90
		D	14.4	12.89	4.39	29.3	8.42
		E	14.3	17.48	5.14	18.8	11.48
		F	14.2	28.90	7.65	15.6	18.11
		G	14.1	2.20	1.86	29.8	3.44
		H	13.7	4.40	2.01	29.3	3.41
		I	14.0	8.61	3.09	21.2	6.08
		J	14.1	13.12	4.68	16.7	10.11
		K	15.7	17.43	4.34	11.6	10.18
		L	14.1	28.95	7.60	13.4	18.89
Composite B TP-2317 & TP-2334	CL	A	15.3	2.22	2.08	14.6	3.51
		B	15.9	4.35	1.86	9.2	3.31
		C	16.2	8.67	3.45	17.3	6.79
		D	16.6	12.72	4.32	12.9	9.58
		E	16.1	17.49	5.59	11.5	13.26
		F	16.2	28.71	7.51	9.5	20.34
		G	16.3	2.19	1.00	28.8	1.42
		H	16.2	4.37	2.10	18.4	3.71
		I	16.2	8.73	3.82	14.3	7.64
		J	16.1	12.95	3.85	9.2	8.25
		K	15.2	17.30	5.97	13.4	13.93
		L	15.9	28.82	8.27	11.7	21.50

Notes:

(1) USCS Symbol also presented in Table 4.2

(2) τ_h = horizontal shear stress, γ=shear strain, σ_v'=effective vertical stress

TABLE 5.1
TESTING SUMMARY - OBSERVATION WELLS
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Well Number	Drilling Method	Well Depth (ft)	Screen Interval (ft bgs)	Coordinates				Well Diameter (I.D. in.)	Testing		
				Northing	Easting	TOC Elevation	Pad Elevation		Slug Testing	24-hour Pump Testing	Sampling for Chemistry
OW-01L	mud rotary	111	100-110	13404252.09	2606686.52	73.74	72.22	2	✓		
OW-01U	mud rotary	61	50-60	13404253.64	2606666.85	73.65	72.16	2	✓		
OW-02L	mud rotary	109	98-108	13411520.51	2607869.30	76.53	75.07	2	✓		
OW-02U	mud rotary	64	53-63	13411502.39	2607862.19	76.74	75.25	2	✓		
OW-03L	mud rotary	98	87-97	13414918.69	2609286.61	76.67	75.21	2	✓		
OW-03U	mud rotary	54	43-53	13414934.48	2609294.86	77.05	75.60	2	✓		
OW-04L	mud rotary	111	100-110	13414268.74	2607440.23	80.67	79.13	2	✓		
OW-04U	mud rotary	86	75-85	13414280.51	2607428.57	81.08	79.61	2	✓		
OW-05L	mud rotary	131	120-130	13414774.22	2605813.28	79.90	78.26	2	✓		
OW-05U	mud rotary	57	46-56	13414770.21	2605832.08	79.55	78.07	2	✓		
OW-06L	mud rotary	96	85-95	13415889.64	2604964.90	81.55	79.49	2	✓		
OW-06U	mud rotary	64	53-63	13415875.58	2604966.94	80.77	79.46	2	✓		
OW-07L	mud rotary	124	113-123	13418420.52	2606531.28	79.04	77.47	4	✓		
OW-07U	mud rotary	64	53-63	13418421.40	2606542.01	79.02	77.32	2	✓		
OW-08L	mud rotary	138	127-137	13415818.85	2598942.49	84.07	82.56	4	✓		
OW-08U	mud rotary	101	90-100	13415801.21	2598934.58	83.88	82.38	2	✓		
OW-09L	mud rotary	121	110-120	13414937.42	2604893.58	80.00	77.86	2	✓		
OW-09U	mud rotary	61	50-60	13414956.05	2604894.51	79.24	77.91	2	✓		
OW-10L	mud rotary	138	127-137	13418486.44	2604760.99	79.88	78.07	2	✓		
0W-10U	mud rotary	59	48-58	13418474.37	2604768.43	79.53	78.09	2	✓		
OW-2301L	mud rotary	141	130-140	13414429.77	2596268.29	83.19	81.89	2	✓		✓
OW-2301U	mud rotary	61	50-60	13414430.08	2596288.46	83.27	81.77	2	✓		✓
OW-2302L	mud rotary	151	140-150	13407382.11	2598388.94	81.95	80.46	2	✓		✓
OW-2302U	mud rotary	96	85-95	13407361.50	2598388.47	81.99	80.52	2	✓		✓
OW-2304L	mud rotary	96	85-95	13396528.12	2608678.06	69.73	68.88	2	✓		✓
OW-2304U	mud rotary	51	40-50	13396542.39	2608679.35	70.10	68.80	2	✓		✓
OW-2307L	mud rotary	111	100-110	13420879.09	2603152.12	78.56	76.91	2	✓		✓
OW-2307U	mud rotary	66	55-65	13420896.73	2603164.23	78.59	77.07	2	✓		✓
OW-2319L	mud rotary	156	145-155	13403611.30	2603051.83	76.05	74.68	2	✓		✓
OW-2319U	mud rotary	96	85-95	13403590.40	2603046.21	75.97	74.33	2	✓		✓
OW-2320L	mud rotary	151	140-150	13407580.88	2606834.36	73.19	71.76	2	✓		
OW-2320U	mud rotary	111	100-110	13407569.51	2606849.70	73.50	71.80	2	✓		
OW-2320U1	mud rotary	81	60-80	13407445.66	2607080.05	72.90	71.36	2		✓	
OW-2320U2	mud rotary	81	60-80	13407436.76	2607093.25	72.92	71.36	2		✓	
OW-2320U3	mud rotary	81	60-80	13407448.17	2607121.37	72.84	71.36	2		✓	
OW-2320U4	mud rotary	81	60-80	13407466.49	2607138.42	72.91	71.42	2		✓	
OW-2321L	mud rotary	151	140-150	13410955.46	2610027.59	73.54	71.99	2	✓		✓
OW-2321U	mud rotary	111	100-110	13410943.58	2610040.96	73.27	71.79	2	✓		✓
OW-2324L	mud rotary	126	115-125	13416300.52	2612217.00	26.27	24.85	2	✓		✓
OW-2324U	mud rotary	46	35-45	13416316.54	2612203.23	26.17	24.67	2	✓		✓
OW-2348L	mud rotary	145	134-144	13409617.75	2621644.36	52.70	51.21	2	✓		✓
OW-2348U	mud rotary	81	70-80	13409636.31	2621660.58	52.12	50.56	2	✓		✓
OW-2352L	mud rotary	91	80-90	13402468.45	2617518.54	64.60	63.33	2	✓		✓
OW-2352U	mud rotary	56	45-55	13402470.61	2617538.69	64.47	63.17	2	✓		✓
OW-2359L1	mud rotary	176	155-175	13417263.65	2605470.56	79.36	78.08	2		✓	
OW-2359L2	mud rotary	176	155-175	13417259.76	2605433.37	78.93	77.56	2		✓	✓
OW-2359L3	mud rotary	176	155-175	13417278.58	2605416.18	78.83	77.26	2		✓	
OW-2359U1	mud rotary	96	85-95	13417252.64	2605460.64	79.29	77.66	2		✓	✓
TW-2320U	mud rotary	82	55-80	13407428.59	2607105.51	72.72	71.50	6		✓	
TW-2359L	mud rotary	182	150-180	13417241.41	2605450.48	79.88	77.69	6		✓	

ft bgs = feet below ground surface
Northing and Eastings provided in US feet (NAD83)
Elevations in feet (NAVD88)

Prepared by: [illegible] Date: 7-16-08

Checked by: KAW Date: 7.16.08

TABLE 5.2
SUMMARY OF GROUNDWATER FIELD MEASUREMENTS - OBSERVATION WELLS
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Well ID	Sample Date	Temperature (°C)	pH	Dissolved Oxygen (mg/L)	Specific Conductivity ($\mu S/cm^2$)	Turbidity (NTU)	O.R.P. (mv)
OW-2301 U	2/18/2008	22.61	7.20	7.29	921	4	151.5
OW-2301 L	2/18/2008	23.40	6.82	3.11	1162	4	74.6
OW-2302 U	2/21/2008	24.39	6.89	5.66	1019	2	77.5
OW-2302 L	2/21/2008	23.37	6.65	5.45	2066	890	211.7
OW-2304 U	2/21/2008	22.43	6.53	3.11	2043	6	81.2
OW-2304 L	2/21/2008	23.05	6.73	7.10	1997	1	119.3
OW-2307 U	2/20/2008	23.10	7.20	4.78	1106	5	56.8
OW-2307 L	2/20/2008	23.17	6.91	2.87	1053	3	152.2
OW-2319 U	2/21/2008	22.84	6.95	6.13	1199	2	81.2
OW-2319 L	2/21/2008	22.96	6.71	4.20	2258	365	100.2
OW-2321 U	2/19/2008	23.52	6.85	5.88	1687	1	109.9
OW-2321 L	2/19/2008	23.90	6.58	4.72	3819	312	97.7
OW-2324 U	2/20/2008	22.14	6.83	6.22	1281	0	110.9
OW-2324 L	2/20/2008	22.82	6.68	5.94	2158	1	59.8
OW-2348 U	2/19/2008	22.67	6.82	5.10	2414	1	164.3
OW-2348 L	2/19/2008	23.19	6.60	3.54	4122	0	42.1
OW-2352 U	2/19/2008	22.45	7.13	6.46	1515	20	180.7
OW-2352 L	2/19/2008	22.40	6.79	5.49	3437	38	61.5
OW-2359 U1	2/20/2008	23.29	6.87	5.55	1192	0	27.3
OW-2359 L2	2/20/2008	23.44	6.74	5.59	2031	0	87.7

Observation wells purged in accordance with ASTM D 6452-99. Field parameters reported for the final stablization reading.

Prepared by: WSC Date: 7-16-08

Checked by: KAW Date: 7.16.08

MACTEC Engineering and Consulting, Inc.
Raleigh, NC

TABLE 5.3
SUMMARY OF GROUNDWATER TEST RESULTS - OBSERVATION WELLS
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Analytical Method →		160.1	6020C								300.0						310.1 - Alkalinity			350.1	SM18 1030F
Constituent →		TDS	Calcium	Iron	Magnesium	Manganese	Potassium	Silica	Silicon	Sodium	Bromide	Chloride	Fluoride	Sulfate	Nitrate	Nitrite	Bicarbonate	Carbonate	Total	Ammonia*	Ion Balance Difference
Well ID	Date Collected	mg/L	µg/L								mg/L						mg/L			µg/L	%
OW-2301 U	2/18/2008	520	77,400 N	<500	8,660	<20	3,860	58,400	27,300 N	130,000	0.24 B	73.5	0.66	35.4	0.68	<0.020	333	<5.0	333	22.7 B,J	0.60
OW-2301 L	2/18/2008	669	114,000 N	<500	14,600	112	5,130	36,000	16,800 N	122,000	0.42	155	0.26	62.5	0.36	<0.020	300	<5.0	300	22.7 B,J	2.3
OW-2302 U	2/21/2008	574	91,300	<500	12,400 E	<20	4,550	39,600	18,500 N	119,000	0.35	110	0.44	26.1	0.73	<0.020	339	<5.0	339	<50	1.6
OW-2302 L	2/21/2008	1,180	265,000	18,300	30,800 E	254	9,690	155,000	72,300 N	167,000	1.1	440	0.23	125	0.56	<0.20	308	<5.0	308	17.8 B	4.0
OW-2304 U	2/21/2008	1,200	206,000	140 B	27,000 E	9.9 B	3,500	41,500	19,400 N	152,000	1.9	441	0.30	17.1	2.1	<0.20	399	<5.0	399	<50	3.8
OW-2304 L	2/21/2008	1,160	192,000	<500	38,200 E	<20	5,200	40,700	19,000 N	151,000	1.4	436	0.38	153	0.32	<0.20	300	<5.0	300	19.7 B	5.6
OW-2307 U	2/20/2008	566	44,900 N	564	7,040	10.4 B	3,340	48,400	22,600 N	163,000	0.24 B	59.9	1.0	18.9	0.36	<0.020	490	<10.0	490	22.7 B,J	7.9
OW-2307 L	2/20/2008	466	83,900 N	<500	12,000	<20	4,970	41,500	19,400 N	100,000	0.38	100	0.40	25.4	1.4	<0.020	298	<5.0	298	22.7 B,J	0.21
OW-2319 U	2/21/2008	665	72,500	<500	12,400 E	<20	4,100	40,200	18,800 N	147,000	0.58	163	0.53	41.1	0.63	<0.20	378	<5.0	378	22.7 B,J	7.5
OW-2319 L	2/21/2008	1,340	229,000	6,650	35,700 E	108	7,580	92,700	43,300 N	189,000	1.2	480	0.26	198	0.43	<0.40	310	<5.0	310	31.5 B,J	6.2
OW-2321 U	2/19/2008	733	111,000 N	<500	18,400	<20	4,610	41,900	19,600 N	133,000	0.66	220	0.41	65.3	0.50	<0.20	300	<5.0	300	22.7 B,J	3.4
OW-2321 L	2/19/2008	919	166,000 N	3,780	27,100	53.0	6,590	66,300	31,000 N	128,000	0.90	355	0.28	59.6	0.52	<0.20	279	<5.0	279	22.7 B,J	5.2
OW-2324 U	2/20/2008	586	111,000 N	<500	15,600	<20	3,610	38,300	17,900 N	99,900	0.43	160	0.29	58.3	0.67	<0.20	289	<5.0	289	22.7 B,J	2.1
OW-2324 L	2/20/2008	1,090	196,000 N	<500	33,600	13.3 B	6,740	33,600	15,700 N	138,000	1.6	517	0.22	86.0	0.54	<0.20	249	<5.0	249	22.7 B,J	7.1
OW-2348 U	2/19/2008	1,110	159,000 N	<500	30,400	<20	4,380	35,500	16,600 N	166,000	1.1	453	0.37	106	0.57	<0.20	252	<5.0	252	22.7 B,J	6.6
OW-2348 L	2/19/2008	1,050	175,000 N	<500	33,300	33.6	5,420	34,000	15,900 N	111,000	1.3	424	0.27	93.3	0.41	<0.20	252	<5.0	252	22.7 B,J	7.6
OW-2352 U	2/19/2008	602	82,200 N	143 B	19,500	<20	2,180	37,000	17,300 N	139,000	0.52	164	0.74	55.7	0.61	<0.20	329	<5.0	329	22.7 B,J	2.5
OW-2352 L	2/19/2008	788	95,800 N	1,300	19,700	34.9	4,090	45,400	21,200 N	184,000	0.61	234	0.37	118	1.1	<0.20	311	<5.0	311	22.7 B,J	3.9
OW-2359 U1	2/20/2008	554	93,100 N	<500	13,400	<20	3,850	37,900	17,700 N	111,000	0.43	148	0.44	45.6	0.71	<0.20	309	<5.0	309	22.7 B,J	3.5
OW-2359 L2	2/20/2008	973	169,000 N	<500	26,700	<20	6,100	32,700	15,300 N	124,000	1.3	415	0.23	76.0	0.55	<0.20	247	<5.0	247	22.7 B,J	6.5

* = Test conducted on Nitrogen, as Ammonia.
< # = Indicates analyte not detected at or above the method detection limit.
N = Spiked analyte recovery is outside stated control limits. Method performance confirmed using Laboratory Control Spike sample results.
B = Estimated result. Result is less than the reporting limit.
J = Method blank contamination. The associated method blank contains the target analyte at a reportable level. Because the reported values are all beolow the Reporting Limit, these results should be considered non-detect values at the Reporting Limit of 50 µg/L.
E = matrix interference

Prepared by: WSL Date: 7-16-08

Checked by: KAW Date: 7-16-08

MACTEC Engineering and Consulting, Inc.
Raleigh, NC

TABLE 5.4
IN-SITU RECOVERY TEST RESULTS SUMMARY (ASTM D 4044-96(02)) - OBSERVATION WELLS
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

				Falling Head Test Results in ft/day		Rising Head Test Results in ft/day		
Slug Test ID	Well Depth (ft bgs)	TOC Elevation (ft NAVD88)	Screen Interval (ft bgs)	Bouwer & Rice	Butler	Bouwer & Rice	Butler	Notes
OW-01 U	61	73.65	50 - 60	1.40E+01	2.07E+01	3.71E+01	3.17E+01	Well screen exposed to SP-SM (3.5 ft) and SP (6.5 ft), in increasing depth.
OW-01 L	111	73.74	100 - 110	4.33E+01	7.33E+01	4.89E+01	4.93E+01	Well screen exposed to SP (6.5 ft) and CL (3.5 ft), in increasing depth.
OW-01 L B	111	73.74	100 - 110	3.36E+01	2.57E+01	4.60E+01	5.96E+01	Well screen exposed to SP (6.5 ft) and CL (3.5 ft), in increasing depth.
OW-02 U	64	76.74	53 - 63	4.46E+00	1.15E+01	1.26E+01	2.34E+01	Well screen exposed to SP-SM (0.5 ft) and SP (9.5 ft), in increasing depth.
OW-02 L	109	76.53	98 - 108	2.33E+01	2.48E+01	2.05E+01	3.63E+01	Well screen exposed to SM (0.5 ft) and SP (9.5 ft), in increasing depth.
OW-03 U	54	77.05	43 - 53	*well dry, no slug testing conducted*				Well screen exposed to CH (0.5 ft) and SP (9.5 ft), in increasing depth.
OW-03 L	98	76.67	87 - 97	8.37E+01	9.48E+01	1.21E+02	1.21E+02	Well screen exposed to SP (10 ft).
OW-03 L B	98	76.67	87 - 97	8.06E+01	9.65E+01	NT	NT	Well screen exposed to SP (10 ft), no rising head test conducted.
OW-04 U	86	81.08	75 - 85	9.44E+00	1.04E+01	5.06E+00	5.94E+00	Well screen exposed to SM (3.7 ft) and CH (6.3 ft), in increasing depth.
OW-04 L	111	80.67	100 - 110	4.18E+00	8.40E+00	7.39E+00	1.17E+01	Well screen exposed to SP-SM (9.0 ft), CH (0.3 ft), and SP (0.7 ft), in increasing depth.
OW-05 U	57	79.55	46 - 56	*Screen not submerged, test not conducted*		2.68E+01	3.11E+01	Well screen exposed to SM (7.7 ft) and SP (2.3 ft), in increasing depth.
OW-05 L	131	79.90	120 - 130	8.62E+00	1.28E+01	9.05E+00	8.34E+00	Well screen exposed to SP (2.5 ft), SP-SC (6.2 ft), and SM (1.3 ft), in increasing depth.
OW-06 U	64	80.77	53 - 63	1.06E+01	1.77E+01	2.33E+01	2.31E+01	Well screen exposed to CH (3 ft) and SP (7 ft), in increasing depth.
OW-06 L	96	81.55	85 - 95	8.72E+01	8.83E+01	3.14E+01	2.95E+01	Well screen exposed to SP (10 ft).
OW-07 U	64	79.02	53 - 63	*Screen not submerged, test not analyzed*		2.64E+01	8.71E+01	Well screen exposed to SM (10 ft).
OW-07 L	124	79.04	113 - 123	1.16E+01	8.15E+00	1.21E+01	1.31E+01	Well screen exposed to SP (7 ft) and CH (3 ft), in increasing depth.
OW-08 U	101	83.88	90 - 100	2.47E+01	3.94E+01	8.21E+01	6.91E+01	Well screen exposed to SP (10 ft).
OW-08 L	138	84.07	127 - 137	6.28E-01	6.92E-01	8.85E-01	8.69E-01	Well screen exposed to SM (10 ft).
OW-09 U	61	79.24	50 - 60	2.87E+01	3.38E+01	2.62E+01	2.30E+01	Well screen exposed to SM (10 ft).
OW-09 L	121	80.00	110 - 120	8.98E-01	1.16E+00	5.36E+00	7.94E+00	Well screen exposed to SP-SC (4 ft) and SP (6 ft), in increasing depth.
OW-09L B	121	80.00	110 - 120	9.13E-01	9.91E-01	NT	NT	Well screen exposed to SP-SC (4 ft) and SP (6 ft), in increasing depth, no rising head test conducted.
OW-10 U	59	79.53	48 - 58	*Insufficient water to conduct slug tests*				Well screen exposed to SM (10 ft).
OW-10 L	138	79.88	127 - 137	9.82E+00	1.29E+01	1.49E+01	1.49E+01	Well screen exposed to SM (10 ft).
OW-2301 U	61	83.27	50 - 60	1.23E+01	2.06E+01	1.42E+01	2.15E+01	Well screen exposed to CH (3.5 ft), and SP (6.5 ft) in increasing depth.
OW-2301 L	141	83.19	130 - 140	2.62E+01	3.81E+01	3.03E+01	4.29E+01	Well screen exposed to SP (10 ft).
OW-2302 U	96	81.99	85 - 95	1.95E+01	4.25E+01	4.50E+01	2.59E+01	Well screen exposed to SM (3.5 ft), and SP (6.5 ft) in increasing depth.
OW-2302 UB	96	81.99	85 - 95	NT	NT	4.90E+01	5.01E+01	Well screen exposed to SM (3.5 ft), and SP (6.5 ft) in increasing depth, no falling head test conducted.
OW-2302 L	151	81.95	140 - 150	9.70E-01	1.17E+00	9.16E+00	9.96E+00	Well screen exposed to CL (3.5 ft), CH (3.5 ft), and SC (3 ft) in increasing depth.
OW-2304 U	51	70.10	40 - 50	6.04E+01	6.20E+01	3.56E+01	5.35E+01	Well screen exposed to SP-SM (8.5 ft), and SM (1.5 ft) in increasing depth.
OW-2304 L	96	69.73	85 - 95	1.66E+01	1.15E+02	5.60E+01	6.05E+01	Well screen exposed to CH (3.5 ft), SP-SM (5 ft), and CL (1.5 ft) in increasing depth.
OW-2307 U	66	78.59	52 - 62	9.64E+00	1.03E+01	7.13E+00	1.47E+01	Well screen exposed to SP (10 ft).
OW-2307 L	111	78.56	100 - 110	1.07E+01	1.91E+01	4.32E+01	6.31E+01	Well screen exposed to SP (10 ft).
OW-2319 U	96	75.97	85 - 95	3.77E+01	5.84E+01	6.95E+01	7.56E+01	Well screen exposed to CH (5 ft), and SP-SM (5 ft) in increasing depth.
OW-2319 L	156	76.05	145 - 155	7.78E-01	7.08E-01	6.04E-01	6.04E-01	Well screen exposed to SP-SM (5 ft), SM (1.5 ft), and unknown soil (3.5 ft), in increasing depth.
OW-2320 U	111	73.50	100 - 110	7.71E+01	8.21E+01	1.10E+02	1.53E+02	Well screen exposed to SC (10 ft).
OW-2320 L	151	73.19	140 - 150	1.06E+01	1.37E+01	1.28E+01	1.71E+01	Well screen exposed to SC (10 ft).
OW-2321 U	111	73.27	100 - 110	1.26E+01	1.85E+01	1.35E+01	1.84E+01	Well screen exposed to SM (10 ft).
OW-2321 L	151	73.54	140 - 150	2.40E+00	3.21E+00	1.78E+01	2.16E+01	Well screen exposed to SC (8.5 ft) and SC-SM (1.5 ft) in increasing depth.
OW-2324 U	46	26.17	35 - 45	1.69E+02	2.34E+02	7.85E+01	1.35E+02	Well screen exposed to SP-SC (0.5 ft), SP (9.2 ft), and SW (0.3 ft), in increasing depth.
OW-2324 U B	46	26.17	35 - 45	1.47E+02	2.26E+02	1.30E+02	1.50E+02	Well screen exposed to SP-SC (0.5 ft), SP (9.2 ft), and SW (0.3 ft), in increasing depth.
OW-2324 L	126	26.27	115 - 125	7.70E+01	8.51E+01	4.82E+01	5.28E+01	Well screen exposed to SP-SC (4.7 ft) and SP (5.3 ft) in increasing depth.
OW-2348 U	81	52.12	70 - 80	9.56E+01	1.22E+02	1.41E+02	1.67E+02	Well screen exposed to SP (2 ft), SW (7.2 ft), and SP (0.8 ft), in increasing depth.
OW-2348 U B	81	52.12	70 - 80	1.36E+02	1.85E+02	1.29E+02	1.59E+02	Well screen exposed to SP (2 ft), SW (7.2 ft), and SP (0.8 ft), in increasing depth.
OW-2348 L	145	52.70	134 - 144	8.61E+01	8.67E+01	4.17E+01	6.20E+01	Well screen exposed to SP (10 ft).
OW-2348 L B	145	52.70	134 - 144	5.09E+01	4.94E+01	3.67E+01	3.76E+01	Well screen exposed to SP (10 ft).
OW-2352 U	56	64.47	45 - 55	3.78E+00	5.03E+00	1.15E+01	1.28E+01	Well screen exposed to SP (10 ft).
OW-2352 L	91	64.60	80 - 90	2.73E+01	3.78E+01	4.23E+01	3.86E+01	Well screen exposed to SP (10 ft).

NT = not tested
ft bgs = feet below ground surface

Prepared by: [illegible] Date: 7-16-08
Checked by: KAW Date: 7.16.08

TABLE 5.5
SUMMARY OF TRANSMISSIVITY VALUES
TW-2320U AQUIFER PUMP TEST (ASTM 4050-96 (02))
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Well ID	Saturated Thickness (ft)	THEIS SOLUTION				COOPER-JACOB				Notes
		Early Time Match (ft^2/day)	Early Time Storativity	Late Time Match (ft^2/day)	Late Time Storativity	Early Time Match (ft^2/day)	Early Time Storativity	Late Time Match (ft^2/day)	Late Time Storativity	
OW-2320 U1	7	325.3	2.61E-05	916.7	4.06E-05	471.6	1.65E-05	1343.2	2.89E-06	
OW-2320 U2	7	284.0	1.68E-05	776.6	2.28E-05	370.4	1.18E-05	1220.0	3.97E-07	
OW-2320 U3	7	365.8	1.98E-05	956.4	2.48E-05	422.3	1.46E-05	1030.9	1.25E-05	
Combination	7	374.0	1.80E-05	854.2	2.80E-05	423.1	2.35E-07	800.6	1.10E-08	INCLUDES 0W-2320 U1, U2, U3
Combination/Recovery	7	727.9	1.27E-02 (S/S')	123.8	1.85E+01 (S/S')	NA	NA	NA	NA	INCLUDES 0W-2320 U1, U2, U3
OW-2320 U4	*Probe S/N 119305 appeared to malfunction*									Recommend data not used for calculations
OW-2320 U	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-2320 L	5	NC	NC	NC	NC	NC	NC	NC	NC	
OW-2321 U	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-2321 L	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-2319 U	7	NC	NC	NC	NC	NC	NC	NC	NC	
OW-2319 L	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-01 U	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-01 L	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-02 U	10	NC	NC	NC	NC	NC	NC	NC	NC	
0W-02 L	10	NC	NC	NC	NC	NC	NC	NC	NC	

Note: NA - Recovery data is was not used for the Cooper-Jacob curve match.
NC - No detectable draw down was observed in the well.

Prepared by: [illegible] Date: 7-16-08
Checked by: KAW Date: 7.16.08

TABLE 5.6
SUMMARY OF MANUAL WATER LEVEL MEASUREMENTS
TW-2320U AQUIFER PUMP TEST (ASTM D 4050-96 (02))
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Date	Time	Elaped Time (sec.)	OW-2320 U1	OW-2320 U2	OW-2320 U3	OW-2320 U4	OW-2320 U	OW-2320 L	OW-2321 U	OW-2321 L	OW-2319 U	OW-2319 L	OW-01 U	OW-01 L	OW-02 U	0W-02 L
2/13/2008	10:00	0	43.71	43.71	43.78	43.97	44.75	43.22	NM	NM	40.81	41.68	42.19	42.99	51.43	51.38
2/13/2008	13:00	900	44.01	44.11	44.05	44.07	44.71	43.19	51.07	51.71	40.78	41.67	42.10	42.95	51.32	51.35
2/13/2008	16:00	19800	44.00	44.09	44.05	44.06	44.71	43.19	51.65	51.71	40.78	41.68	42.05	42.90	51.27	51.30
2/13/2008	18:00	27000	44.02	44.13	44.08	44.08	44.69	43.19	NM	NM	NM	NM	NM	NM	NM	NM
2/13/2008	20:00	34200	44.06	44.16	44.11	44.11	NC	NC	NM	NM	NM	NM	NM	NM	NM	NM
2/13/2008	22:00	41400	44.07	44.17	44.11	44.12	NC	NC	NM	NM	NM	NM	NM	NM	NM	NM
2/13/2008	0:00	48600	44.05	44.15	44.10	44.11	NC	NC	NM	NM	NM	NM	NM	NM	NM	NM
2/14/2008	6:00	70200	44.06	44.16	44.11	44.11	44.65	43.18	NM	NM	NM	NM	NM	NM	NM	NM
2/14/2008	8:00	77400	44.06	44.17	44.11	44.12	44.68	43.20	51.70	51.69	40.78	41.65	42.06	42.88	51.32	51.30
2/14/2008	16:00	106200	44.04	44.14	44.07	44.07	44.66	43.20	51.70	51.69	40.78	41.65	42.01	42.85	NM	NM

Note: Pump on at 2/13/2008 10:30 (11:30 computer time)
Pump off at 2/14/2008 10:30 (11:30 computer time)
Total flow 9130 gal. (actual not average value)
NC - No change in water level.
NM - Background water levels were not measured at night due to the remote locations of these wells.

Prepared by: WSL Date: 7/6/08
Checked by: KAW Date: 7.16.08

TABLE 5.7
SUMMARY OF TW-2320U PUMP TEST RECOVERY RESULTS (ASTM D 4050 (02))
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING RESERVOIR

Well ID	Static Measurement (ft)	Drawdown at Pump Test Completion (ft)	Observed Total Drawdown (ft)	Final Recovery Measurement (ft)	Observed Total Recovery (ft)	% of Recovery of Total Drawdown	Comments
Date / time	2/13/08 / 11:30:00	2/15/08 / 11:29:30	n/a	2/16/08 / time varies	n/a	n/a	
TW-2320 U	39.344	23.4	15.944	39.468	16.068	101%	Test well
OW-2320 U1	37.823	37.386	0.437	37.967	0.581	133%	
OW-2320 U2	38.997	38.517	0.48	39.103	0.586	122%	
OW-2320 U3	37.862	37.436	0.426	37.9781	0.5421	127%	
OW-2320 U4	*Probe S/N 119305 appeared to malfunction*						Recommend data not used for calculations
OW-2320 U	26.538	26.583	NC	NC	NC	NC	
OW-2320 L	19.295	19.3	NC	NC	NC	NC	
OW-2321 U	16.247	16.297	NC	NC	NC	NC	
OW-2321 L*	15.708	15.737	NC	NC	NC	NC	
OW-2319 U*	23.145	23.174	NC	NC	NC	NC	
OW-2319 L*	26.655	26.693	NC	NC	NC	NC	
OW-01 U*	12.329	12.394	NC	NC	NC	NC	
OW-01 L*	20.629	20.691	NC	NC	NC	NC	
OW-02 U*	8.943	8.984	NC	NC	NC	NC	
OW-02 L*	7.934	8.003	NC	NC	NC	NC	

NC = no detectable drawdown was observed in well
* = Indicates water-level measurements collected on a linear scale.
The "L" wells are screened in a separate aquifer from which the pump test was conducted. Static measurements were slected from 11:00:00 on 2/13/08 as this is the closest pre-test initiating measurement. End of test measurement is selelected from the closest measurement equal to or before 11:00:00 on 2/15/08, the test end, prior to recovery. Final recovery measurement is the last value recorded on 2/16/08.

Prepared by: [illegible] Date: 7-16-08

Checked by: KAW Date: 7.16.08

MACTEC Engineering and Consulting, Inc.
Raleigh, NC

TABLE 5.8
SUMMARY OF TRANSMISSIVITY VALUES
TW-2359L 24 HOUR AQUIFER PUMP TEST (ASTM D 4050-96 (02))
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Well ID	Saturated Thickness (ft)	THEIS SOLUTION				COOPER-JACOB				Notes
		Early Time Match (ft^2/day)	Early Time Storativity	Late Time Match (ft^2/day)	Late Time Storativity	Early Time Match (ft^2/day)	Early Time Storativity	Late Time Match (ft^2/day)	Late Time Storativity	
OW-2359 U1	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-2359 L1	20	*Probe S/N 119305 appeared to malfunction*								Recommend data not used for calculations.
OW-2359 L2	20	400.3	8.78E-04	2006.3	3.61E-04	1402.8	7.50E-04	2919.5	2.76E-05	
OW-2359 L3	20	568.6	3.75E-04	2452.5	1.92E-04	1986.2	2.73E-04	3407.2	9.74E-06	
Combination	20	2311.6[1]	2.63E-04	---	---	2032.2[1]	4.21E-04	---	---	Includes 0W-2359 L2, L3
Combination/Recovery	20	2311.6[1]	4.024 (S/S')	---	---	NA	NA	NA	NA	Includes 0W-2359 L2, L3
OW-06 U	7	NC	NC	NC	NC	NC	NC	NC	NC	
OW-06 L	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-07 U	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-07 L	7	NC	NC	NC	NC	NC	NC	NC	NC	
OW-09 U	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-09 L	9	NC	NC	NC	NC	NC	NC	NC	NC	
OW-10 U	10	NC	NC	NC	NC	NC	NC	NC	NC	
OW-10 L	10	NC	NC	NC	NC	NC	NC	NC	NC	

Note:
1 - Only an overall match was used for the test data was developed.
NA - Recovery data is was not used for the Cooper-Jacob curve match.
NC - No detectable draw down was observed in the well.

Prepared by: LSL Date: 7-16-08
Checked by: KAW Date: 7.16.08

TABLE 5.9
SUMMARY OF MANUAL WATER LEVEL MEASUREMENTS
TW-2359L 24 HOUR AQUIFER PUMP TEST (ASTM 4050-96(02))
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Date	Time	Elaped Time (sec.)	OW-2359 U1	OW-2359 L1	OW-2359 L2	OW-2359 L3	OW-06 U	OW-06 L	OW-07 U	OW-07 L	OW-09 U	OW-09 L	OW-10 U	0W-10 L
2/4/2008	8:00[1]	0	54.91	54.50	54.08	53.82	54.22	53.28	58.27	58.23	51.18	51.91	56.90	54.92
2/4/2008	14:00	720	54.85	55.63	55.27	54.83	53.18	54.15	58.18	58.17	51.10	51.85	56.87	54.97
2/4/2008	16:00	1440	54.85	55.71	55.32	54.90	53.18	54.15	58.19	58.17	51.08	51.83	56.85	54.98
2/4/2008	18:00	21600	54.85	55.75	55.37	54.95	53.22	54.18	58.21	58.22	51.07	51.86	56.88	55.01
2/4/2008	22:00	36000	54.86	55.80	55.45	55.00	53.25	54.21	58.26	58.26	51.15	51.90	56.94	55.05
2/5/2008	6:00	64800	54.85	55.82	55.44	55.00	53.21	54.18	58.22	58.20	51.11	51.87	56.92	55.07
2/5/2008	8:00	72000	54.90	55.85	55.45	55.04	53.25	54.20	58.24	58.25	51.15	51.88	56.92	55.07
2/5/2008	10:00	79200	54.89	55.85	55.45	55.02	53.25	54.20	58.24	58.23	51.14	51.89	56.92	55.06
2/5/2006	12:00	86400	54.88	55.74	55.36	54.92	NM	NM	NM	NM	NM	NM	NM	NM
2/6/2008	7:30	156600	55.12	54.62	54.20	53.95	53.50	54.47	58.42	58.41	51.66	52.27	57.31	55.05

Note: [1] - 8:00 Reading used as initial water level (time 0)
Pump on at 2/04/2008 12:00 (13:00 computer time)
Pump off at 2/5/2008 12:08 (13:08 computer time)
Total flow 30754 gal. (actual not average value)
NM - Water level not measured

Prepared by: LWG Date: 7-16-08
Checked by: KAW Date: 7.16.08

TABLE 5.10
SUMMARY OF TW-2359L PUMP TEST RECOVERY RESULTS (ASTM D 4050 (02))
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO. 6468-07-1777
COOLING RESERVOIR

Well ID	Static Measurement (ft)	Drawdown at Pump Test Completion (ft)	Observed Total Drawdown (ft)	Final Recovery Measurement (ft)	Observed Total Recovery (ft)	% of Recovery of Total Drawdown	Comments
Date / time	2/04/08 / 13:00:00	2/05/08 / 12:58:00-13:00:00	n/a	2/06/08 / time varies	n/a	n/a	
TW-2359 L	72.515	55.775	16.74	72.427	16.652	99%	Test well
OW-2359 U1	37.358	37.405	NC	NC	NC	NC	
OW-2359 L1	*Probe S/N 119305 appeared to malfunction*						Recommend data not used for calculations
OW-2359 L2	41.55	40.192	1.358	41.508	1.316	97%	
OW-2359 L3	34.241	33.086	1.155	34.166	1.08	94%	
OW-06 U*	11.056	11.084	NC	NC	NC	NC	
OW-06 L*	25.464	25.501	NC	NC	NC	NC	
OW-07 U*	4.346	4.366	NC	NC	NC	NC	
OW-07 L*	20.984	21.002	NC	NC	NC	NC	
OW-09 U*	11.521	11.59	NC	NC	NC	NC	
OW-09 L*	20.623	20.662	NC	NC	NC	NC	
OW-10 U*	2.728	2.775	NC	NC	NC	NC	
OW-10 L*	17.521	17.385	0.136	17.428	0.043	32%	Does not meet 95% criteria. Recommend data should not be used for calculations.

NC = no detectable drawdown was observed in well
* = Indicates water-level measurements collected on a linear basis.

The "U" wells are screened in a separate aquifer from which the pump test was conducted. Static measurements were slected from 13:00:00 on 2/4/08 as this is the closest pre-test initiating measurement. End of test measurement is selelected from the closest measurement equal to or before 13:00:00 on 2/5/08, the test end, prior to recovery. Final recovery measurement is the last value recorded on 2/6/08.

Prepared by: [illegible] Date: 7-16-08

Checked by: KAW Date: 7-16-08

TABLE 5.11
SUMMARY OF SATURATED HYDRAULIC CONDUCTIVITY RESULTS (K_{sat})
EXELON TEXAS COL (Victoria) PROJECT
MACTEC PROJECT NO: 6468-07-1777
COOLING RESERVOIR

Boring #	K_{sat} (cm/s)	Double Head Calculation	Single Head Calculation	Reservoir used (cm^2)	Well Hole Radius (cm)
2309P-U	NMC			2.15	3.0
2309P-L	1.44E-06		x	35.22	3.0
2311P-U	6.94E-08		x	35.22	3.0
2311P-L	NMC			2.15	3.0
2312P-U	1.76E-07		x	35.22	3.0
2312P-L	4.00E-05	x		2.15	3.0
2313P-U	NMC			2.15	3.0
2313P-L	2.67E-06		x	35.22	3.0
2314P-U	4.73E-06		x	2.15	3.0
2314P-L	NMC			2.15	3.0
2325P-U	1.71E-06		x E. Mal.	2.15	3.0
2325P-L	4.20E-04	x		35.22	3.0
2326P-U	NMC			2.15	3.0
2326P-L	1.44E-06		x	35.22	3.0
2327P-U	NMC			2.15	3.0
2327P-L	1.60E-05	x		2.15	3.0
2328P-U	1.60E-05	x		2.15	3.0
2328P-L	9.70E-04	x		35.22	3.0
2329P-U	NMC			2.15	3.0
2329P-L	NMC			2.15	3.0
2330P-U	1.88E-06		x	2.15	3.0
2330P-L	5.34E-07		x	35.22	3.0
2339P-U	1.99E-06		x	2.15	3.0
2339P-L	2.40E-05	x		2.15	3.0
2341P-U	2.70E-06	x		2.15	3.0
2341P-L	1.08E-05		x	2.15	3.0
2342P-U	NMC			2.15	3.0
2342P-L	NMC			2.15	3.0
2343P-U	NMC			2.15	3.0
2343P-L	NMC			2.15	3.0
2345P-U	NMC			2.15	3.0
2345P-L	NMC			2.15	3.0

Notes:
* E. Mal - equipment malfunction. Only one data set (5 cm head) taken. Single head calculation used.
* U - indicates upper test (5 feet below ground surface)
* L - indicates lower test (10 feet below ground surface)
* Data collected in accordance with ASTM D 5126-09 (2004)
* NMC indicates that there was no measureable change in infiltration and the test was stopped after 4 hours.

Prepared by: [illegible] Date: 7-16-08

Checked by: KAW Date: 7.16.08

FINAL DATA REPORT Rev 0
GEOTECHNICAL EXPLORATION AND TESTING

EXELON TEXAS COL PROJECT
VICTORIA COUNTY, TEXAS
COOLING BASIN

July 18, 2008

VOLUME 1
Figures

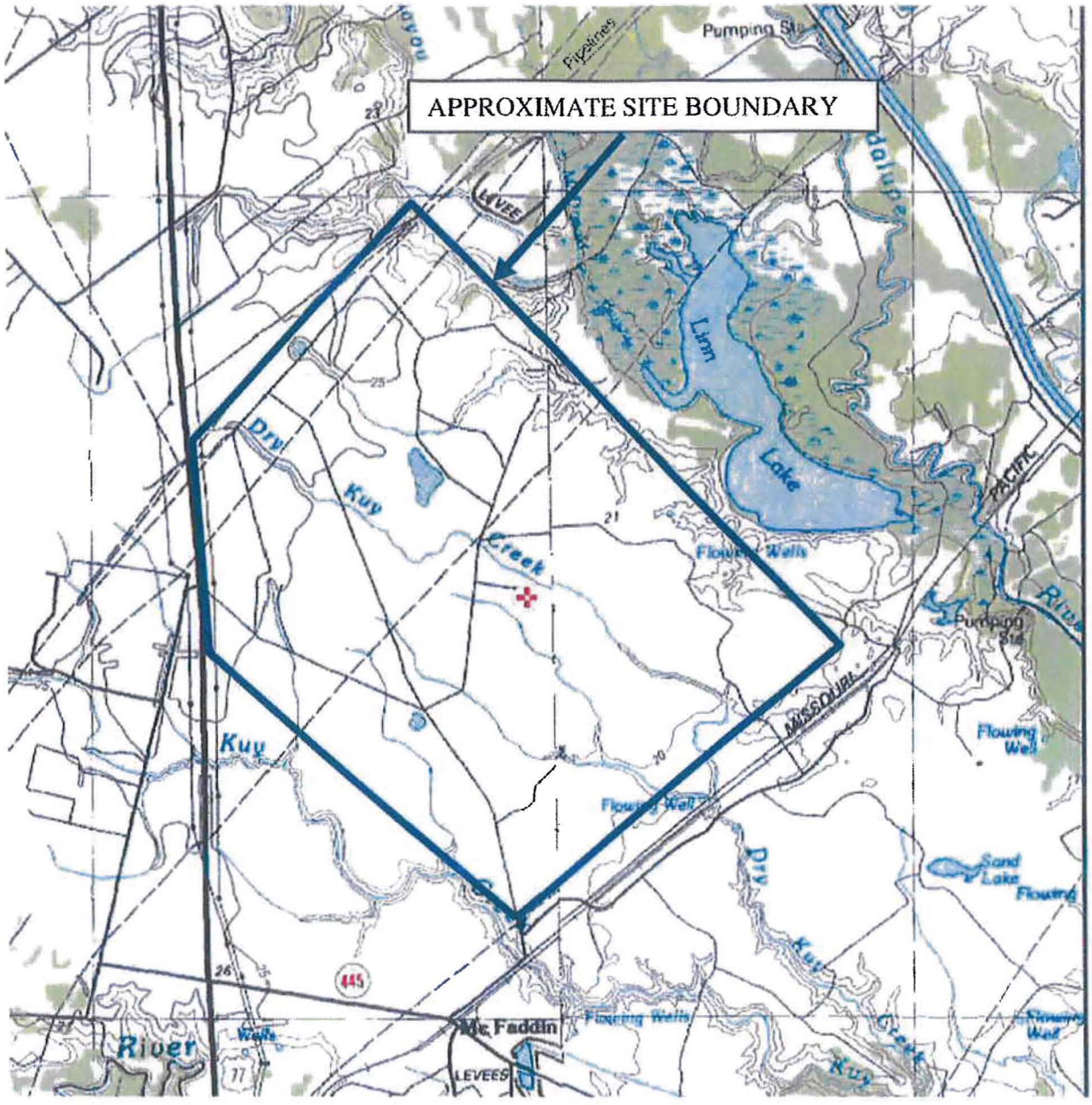
Prepared By:

MACTEC Engineering and Consulting, Inc.
Raleigh, North Carolina

MACTEC Project No. 6468-07-1777

Prepared For:

Bechtel Power Corporation
Subcontract No. 25352-102-HC4-CY00-00001



0 1 2 3 4 5 km

0 0.8 1.6 2.4 3.2 4 mi

UTM 14 695259E 3165327N (NAD83/WGS84)

USGS McFaddin (TX) Quadrangle

Projection is UTM Zone 14 NAD83 Datum

NORTH

NOTE: SITE LOCATION IS APPROXIMATE

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MACTEC ENGINEERING AND CONSULTING, INC.
3301 ATLANTIC AVENUE
RALEIGH, NORTH CAROLINA 27604

SITE VICINITY MAP
EXELON COL PROJECT
VICTORIA, TEXAS

DRAWN:	WSG	DATE:	APRIL 2008	FIGURE
ENG CHECK:	CBS	SCALE:	AS SHOWN	1
APPROVAL:	KAW 4-30-08	JOB:	6468-07-1777	

FINAL DATA REPORT Rev 0
GEOTECHNICAL EXPLORATION AND TESTING

EXELON TEXAS COL PROJECT
VICTORIA COUNTY, TEXAS
COOLING BASIN

July 18, 2008

VOLUME 1
Appendix A – Survey Report
(See Final Data Report Rev 0 of Geotechnical Exploration and Testing for Power Block, Appendix A, July 10, 2008)

Prepared By:

MACTEC Engineering and Consulting, Inc.
Raleigh, North Carolina

MACTEC Project No. 6468-07-1777

Prepared For:

Bechtel Power Corporation
Subcontract No. 25352-102-HC4-CY00-00001

FINAL DATA REPORT Rev 0
GEOTECHNICAL EXPLORATION AND TESTING

EXELON TEXAS COL PROJECT
VICTORIA COUNTY, TEXAS
COOLING BASIN

July 18, 2008

VOLUME 1
Appendix B – Geotechnical Field Data

Prepared By:

MACTEC Engineering and Consulting, Inc.
Raleigh, North Carolina

MACTEC Project No. 6468-07-1777

Prepared For:

Bechtel Power Corporation
Subcontract No. 25352-102-HC4-CY00-00001

Contents

Geotechnical Boring Logs
Test Pit Logs
SPT Report (See Final Data Report Rev 0 of Geotechnical Exploration and Testing for Power Block, Appendix B, July 10, 2008)

Geotechnical Boring Logs

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDK Date 6-12-08
Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-01	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.5 ft (NAVD88)	NORTHING 13,404,257 US ft (NAD83)	EASTING 2,606,681 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/M. Lear	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 10/2/07	COMPLETED 10/3/07	CASING DEPTH: 3.5 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
71.5					Ground Surface				71.5 / 0.0
71.5 / 68.0	0.0 / 3.5	2	2	2	4	SS-1			Silty SAND (SM), grayish brown (10YR5/2), very loose, moist, some fines, trace organics
68.0 / 63.0	3.5 / 8.5	6	8	11	19	SS-2			LEAN CLAY with sand (CL), pale brown (10YR6/3), very stiff, moist, little fine sand, few carbonate nodules
63.0 / 58.0	8.5 / 13.5	5	7	7	14	SS-3			Clayey SAND (SC), very pale brown (10YR7/4), firm, moist, some fines, few carbonate nodules
58.0 / 53.0	13.5 / 18.5	11	16	20	36	SS-4			POORLY GRADED SAND (SP), light gray (2.5Y7/2), dense, moist, trace fines
53.0 / 48.0	18.5 / 23.5	16	29	38	67	SS-5			18.5ft: pale yellow (2.5Y8/2), very dense, dry to moist
48.0 / 43.0	23.5 / 28.5	22	10	9	19	SS-6			FAT CLAY (CH), white (2.5Y8/1) to pale yellow (2.5Y7/4), very stiff, moist, few coarse sand and gravel, strong HCl reaction
43.0 / 38.0	28.5 / 33.5	6	8	11	19	SS-7			28.5ft: brownish yellow (10YR6/6), mottled with light gray (2.5Y7/1), trace sand and carbonate nodules
38.0 / 33.0	33.5 / 38.5	7	7	10	17	SS-8			33.5ft: trace fine sand
33.0 / 28.0	38.5 / 43.5	6	8	10	18	SS-9			38.5ft: reddish yellow (7.5YR7/6), few fine sand
28.0 / 23.0	43.5 / 48.5	6	8	11	19	SS-10			43.5ft: little sand
23.0 / 18.0	48.5 / 53.5	5	14	21	35	SS-11			POORLY GRADED SAND with silt (SP-SM), light yellowish brown (2.5YR6/3), dense, wet, little fines, strong HCl reaction
18.0	53.5	9	15	19	34	SS-12			POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, trace fines, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-01	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.5 ft (NAVD88)	NORTHING 13,404,257 US ft (NAD83)	EASTING 2,606,681 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/M. Lear	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 10/2/07	COMPLETED 10/3/07	CASING DEPTH: 3.5 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
15.4					Continued from previous page				
13.0	58.5								POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, trace fines, strong HCl reaction *(continued)*
		8	13	18	31	SS-13			
8.0	63.5								
		11	13	18	31	SS-14			63.5ft: very pale brown (10YR7/3)
3.0	68.5								3.0 — 68.5
		5	7	8	15	SS-15			FAT CLAY (CH), reddish yellow (7.5YR6/6), stiff, moist, trace fine sand and carbonate nodules, weak HCl reaction
-2.0	73.5								
		7	8	9	17	SS-16			73.5ft: light gray (10YR7/1), very stiff, few fine sand, little carbonate nodules
									-4.5 — 76.0
-7.0	78.5								Clayey SAND (SC), light gray (7.5YR7/1), dense, wet, some fines, strong HCl reaction, few carbonate nodules
		9	15	16	31	SS-17			
									-9.5 — 81.0
-12.0	83.5								POORLY GRADED SAND (SP), light gray (2.5YR7/2), dense, wet, trace fines, trace carbonate nodules, strong HCl reaction
		10	11	22	33	SS-18			
									-16.0 — 87.5
-17.0	88.5								FAT CLAY (CH), light gray (2.5YR7/1), very stiff, moist, few fine sand, little carbonate nodules, no HCl reaction in clay
		9	14	15	29	SS-19			
									-21.0 — 92.5
-22.0	93.5								POORLY GRADED SAND (SP), light gray (2.5Y7/2), dense, wet, few fines, no HCl reaction
		13	18	19	37	SS-20			
-27.0	98.5								
		27	39	36	75	SS-21			98.5ft: very dense, trace gravel, weak HCl reaction
									-35.0 — 106.5
-37.0	108.5								LEAN CLAY (CL), very pale brown (10YR7/4), very stiff, moist, little fine sand, few carbonate nodules, weak HCl reaction in clay
		7	8	11	19	SS-22			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-01	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 71.5 ft **(NAVD88)**	**NORTHING** 13,404,257 **US ft (NAD83)**	**EASTING** 2,606,681 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.0 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/M. Lear**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 10/2/07	**COMPLETED** 10/3/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 2 15/16" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-40.7					Continued from previous page				
									LEAN CLAY (CL), very pale brown (10YR7/4), very stiff, moist, little fine sand, few carbonate nodules, weak HCl reaction in clay *(continued)*
									-44.5 — 116.0
-47.0	118.5								Silty SAND (SM), light gray (2.5YR7/2), dense, wet, little fines, no HCl reaction
		12	15	19	34	SS-23			
									-53.5 — 125.0
-57.0	128.5								FAT CLAY (CH), very pale brown (10YR7/4), very stiff, moist, few fine sand, few carbonate nodules, no HCL reaction in clay
		7	11	11	22	SS-24			
-67.0	138.5								
		18	9	12	21	SS-25			138.5ft: light gray (10YR7/1), few carbonate nodules
-77.0	148.5								148.5ft: stiff, trace carbonate nodules
		5	9	23	32	SS-26A/B			-77.8 — 149.3
									-78.5 — 150.0 POORLY GRADED SAND (SP), light gray (10YR7/1), dense, wet, trace fines, trace carbonate nodules
									Boring Terminated at Elevation -78.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDH Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Deobald	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-02	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 74.7 ft (NAVD88)	NORTHING 13,411,511 US ft (NAD83)	EASTING 2,607,866 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/1/07	COMPLETED 9/3/07	CASING DEPTH: 3.7 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
74.7					Ground Surface				74.7 / 0.0
74.7	0.0	1	1	1	2	SS-1			LEAN CLAY (CL), dark reddish brown (5YR2.5/2), soft, moist, few sand, few silt, trace to few organics
71.2	3.5	2	4	6	10	SS-2			71.2 / 3.5 FAT CLAY (CH), pale brown (10YR7/4), mottled with yellowish brown (10YR5/4), stiff, moist, little silt
68.7	6.0	4	9	10	19	SS-3			68.7 / 6.0 LEAN CLAY (CL), pale brown (10YR7/4), very stiff, moist, little silt, few sand, carbonate nodules up to 1/4" diameter, strong HCl reaction
66.2	8.5	5	10	12	22	SS-4			66.2 / 8.5 FAT CLAY (CH), pale brown (10YR7/4), very stiff, moist, little silt, 3/4"-thick seam of carbonate, weak to strong HCl reaction
63.7	11.0	7	8	9	17	SS-5			11.0ft: mottled with light greenish gray(10Y7/1), trace magnesium and carbonate nodules
61.2	13.5	4	6	6	12	SS-6			13.5ft: stiff
56.2	18.5	6	7	10	17	SS-7			18.5ft: very stiff, dry to moist
51.2	23.5	5	5	7	12	SS-8			23.5ft: stiff, weak HCl reaction
46.2	28.5	4	4	5	9	SS-9			
41.2	33.5	4	4	5	9	SS-10			33.5ft: few silt
36.2	38.5	3	6	6	12	SS-11			38.5ft: light gray (10YR7/1), mottled with pale brown (10YR7/4)
31.2	43.5	6	8	10	18	SS-12			31.2 / 43.5 LEAN CLAY (CL), light gray (10YR7/1), mottled pale brown (10YR7/4), very stiff, dry to moist, few silt and sand, trace carbonate, weak HCl reaction
26.2	48.5	10	24	36	60	SS-13A/B			26.2 / 48.5 25.4 / 49.3 FAT CLAY (CH), light gray (10YR7/1), mottled with pale brown (10YR7/4), dry to moist, few silt, little carbonate nodules, weak to strong HCl reaction; POORLY GRADED SAND with silt (SP-SM), very dense, moist, light gray (10YR7/1), fine sand, few silt
21.2	53.5	16	27	35	62	SS-14			21.2 / 53.5 POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Deobald	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-02	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 74.7 ft (NAVD88)	NORTHING 13,411,511 US ft (NAD83)	EASTING 2,607,866 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/1/07	COMPLETED 9/3/07	CASING DEPTH: 3.7 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
18.6					Continued from previous page				
16.2	58.5								POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, weak HCl reaction *(continued)*
		13	21	35	56	SS-15			58.5ft: wet
11.2	63.5								11.2 — 63.5
		5	8	10	18	SS-16			FAT CLAY (CH), pale brown (10YR7/4), mottled light gray (10YR7/1), very stiff, dry to moist, few silt, trace carbonate nodules, weak HCl reaction
6.2	68.5								
		5	7	11	18	SS-17			
1.2	73.5								1.2 — 73.5
		7	10	16	26	SS-18			LEAN CLAY (CL), pale brown (10YR7/4), mottled with light gray (10YR7/1), very stiff, dry to moist, few silt, trace carbonate nodules, weak HCl reaction
-3.8	78.5								-3.8 — 78.5
		6	7	9	16	SS-19			FAT CLAY (CH) light gray (10YR7/1), mottled pale brown (10YR7/4), very stiff, dry to moist, few silt, trace carbonate nodules, weak HCl reaction
-8.8	83.5								-8.8 — 83.5
		15	20	22	42	SS-20			Silty SAND (SM), very pale brown (10YR7/4), dense, wet, little silt
-13.8	88.5								-13.8 — 88.5
		23	26	38	64	SS-21			POORLY GRADED SAND (SP), very pale brown (10YR7/4), and yellowish brown (10YR5/8), very dense, wet, trace silt, weak HCl reaction
-18.8	93.5								
		12	13	22	35	SS-22A/B			-19.6 — 94.3; -19.8 — 94.5 Sandy LEAN CLAY (CL); Silty SAND (SM), very pale brown (10YR7/4), dense, wet, clay seam contains carbonate nodules, weak HCl reaction
-23.8	98.5								-23.8 — 98.5
		9	10	11	21	SS-23			POORLY GRADED SAND with gravel (SP), very pale brown (10YR7/4), very firm, wet, little subangular gravel up to 1/8" diameter, trace carbonate nodules up to 1/2" diameter
-33.8	108.5								-33.8 — 108.5
		12	15	25	40	SS-24			Clayey SAND (SC), very pale brown (10YR7/4), dense, moist, some clay, no HCl reaction.

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Deobald	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-02	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 74.7 ft **(NAVD88)**	**NORTHING** 13,411,511 **US ft (NAD83)**	**EASTING** 2,607,866 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.0 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 9/1/07	**COMPLETED** 9/3/07	**CASING DEPTH: 3.7 ft**	**BITS USED: 2 15/16" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-37.5					Continued from previous page				
-38.8	113.5								-38.8 / 113.5
		5	6	8	14	SS-25			FAT CLAY (CH), light gray (10YR7/1), mottled very pale brown (10YR7/4), stiff, dry to moist, few silt, trace carbonate nodules, weak HCl reaction.
-43.8	118.5								
		6	9	11	20	SS-26			118.5ft: very stiff, trace magnesium nodules
-53.8	128.5								
		9	12	13	25	SS-27			
-63.8	138.5								-62.8 / 137.5
		15	33	44	77	SS-28			POORLY GRADED SAND (SP), very pale brown (10YR7/4), very dense, wet, trace silt, weak HCl reaction
-73.8	148.5								-73.0 / 147.7
		9	12	17	29	SS-29A/B			-74.1 / 148.8 LEAN CLAY (CL), very pale brown (10YR7/4), mottled light gray (10YR7/1), very stiff, dry to moist, little sand, trace carbonate nodules, weak HCl reaction
									-75.3 / 150.0 Silty SAND (SM), very pale brown (10YR7/4), moist, some silt
									Boring Terminated at Elevation -75.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDZ Date 6-12-08
Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Deobald	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-03	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 74.9 ft (NAVD88)	NORTHING 13,414,927 US ft (NAD83)	EASTING 2,609,291 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/4/07	COMPLETED 9/5/07	CASING DEPTH: 3.8 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
74.9					Ground Surface				74.9 / 0.0
74.9	0.0	2	2	2	4	SS-1			Silty SAND (SM), very dark grayish brown (10YR3/2), very loose, moist, some silt, few organics and roots
71.4	3.5	4	6	5	11	SS-2			LEAN CLAY (CL), light gray (10YR7/1), mottled very pale brown (10YR7/4), stiff, moist, few silt, trace fine sand, no HCl reaction
68.9	6.0	2	4	5	9	SS-3			6.0ft: some sand
66.4	8.5	4	6	6	12	SS-4			POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR7/4), firm, moist, few silt, no HCl reaction
63.9	11.0	4	10	10	20	SS-5			11.0ft: trace silt
61.4	13.5	13	11	8	19	SS-6A/B			FAT CLAY (CH), light gray (10YR7/1), mottled very pale brown (10YR7/4), very stiff, moist, few silt, weak HCl reaction
56.4	18.5	9	10	13	23	SS-7			POORLY GRADED SAND (SP), very pale brown (10YR7/4), very firm, moist, trace silt
51.4	23.5	8	9	10	19	SS-8			24.5ft: 2"-thick layer of lean clay, firm
46.4	28.5	10	15	17	32	SS-9A/B			FAT CLAY (CH), very pale brown (10YR7/4), moist, trace silt (46.4 / 28.5 – 45.2 / 29.7); POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, moist; FAT CLAY (CH), very pale brown (10YR7/4), moist, trace carbonate nodules, weak HCl reaction
41.4	33.5	5	13	24	37	SS-10A/B			POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, moist, trace silt
36.4	38.5	9	9	8	17	SS-11			FAT CLAY (CH), light gray (10YR7/1), mottled very pale brown (10YR7/4), very stiff, dry to moist, few silt, strong HCl reaction, few carbonate nodules, 0.2'-thick layer of sand
31.4	43.5	12	17	23	40	SS-12			POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, dry to moist, trace silt
26.4	48.5	12	32	50/0.3	82/0.8	SS-13			48.5ft: very dense, weak HCl reaction
21.4	53.5	4	5	6	11	SS-14			LEAN CLAY (CL), very pale brown (10YR7/4), stiff, dry to moist, few silt, trace fine sand, trace carbonate nodules, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Deobald	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-03	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 74.9 ft (NAVD88)	NORTHING 13,414,927 US ft (NAD83)	EASTING 2,609,291 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/4/07	COMPLETED 9/5/07	CASING DEPTH: 3.8 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
18.8					Continued from previous page				
16.4	58.5								LEAN CLAY (CL), very pale brown (10YR7/4), stiff, dry to moist, few silt, trace fine sand, trace carbonate nodules, weak HCl reaction *(continued)*
		6	7	10	17	SS-15			FAT CLAY (CH), light gray (10YR7/1), mottled very pale brown (10YR7/4), very stiff, dry, trace silt, weak HCl reaction
11.4	63.5								
		4	3	8	11	SS-16			POORLY GRADED SAND with silt (SP-SM), very pale, brown (10YR7/4), firm, wet, few silt, weak HCl reaction
6.4	68.5								
		13	15	21	36	SS-17			POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, moist, fine grained, trace to few coarse sand and gravel
1.4	73.5								
		16	28	41	69	SS-18			73.5ft: very dense, moist to wet, trace gravel up to 1/2" diameter
-3.6	78.5								
		7	10	12	22	SS-19			POORLY GRADED SAND (SP), very pale brown (10YR7/4), very firm, wet, trace silt, few subrounded gravel, weak HCl reaction
-8.6	83.5								
		25	18	20	38	SS-20			83.5ft: dense, few gravel
-13.6	88.5								
		9	9	13	22	SS-21			88.5ft: very firm, little gravel
-18.6	93.5								
		8	18	13	31	SS-22			93.5ft: dense
-23.6	98.5								
		6	10	12	22	SS-23			POORLY GRADED SAND (SP), light gray (10YR7/1), very firm, moist, trace silt, weak HCl reaction
-33.6	108.5								
		11	7	8	15	SS-24			LEAN CLAY (CL), light gray (10YR7/1), mottled very light brown, stiff, dry, few silt, trace sand, weak to strong HCl reaction
									-37.1 112.0

EXELON COL.BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Deobald	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-03	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 74.9 ft (NAVD88)	NORTHING 13,414,927 US ft (NAD83)	EASTING 2,609,291 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/4/07	COMPLETED 9/5/07	CASING DEPTH: 3.8 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-37.3					Continued from previous page				
									SAND; driller feedback, not sampled *(continued)*
									-39.1 114.0
									CLAY; driller feedback, not sampled
									-41.1 116.0
-43.6	118.5								POORLY GRADED SAND (SP), very light brown (10YR7/4), dense, wet, trace gravel
		3	15	19	34	SS-25			
									-49.1 124.0
									CLAY; driller feedback, not sampled
									-51.1 126.0
-53.6	128.5								Silty SAND (SM), light gray (10YR7/1), dense, wet, some silt, weak HCl reaction
		15	15	18	33	SS-26			
-63.6	138.5								-63.6 138.5
		22	31	29	60	SS-27			POORLY GRADED SAND (SP), very pale brown (10YR7/4), and other assorted colors, very dense, wet, trace subrounded gravel, weak HCl reaction
-73.6	148.5								
		9	15	38	53	SS-28			148.5ft: trace silt, rounded gravel to 5/8" diameter
									-75.1 150.0
									Boring Terminated at Elevation -75.1 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-04	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 79.0 ft (NAVD88)	NORTHING 13,414,277 US ft (NAD83)	EASTING 2,607,437 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/18/07	COMPLETED 9/19/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
79.0					Ground Surface				79.0 / 0.0
79.0	0.0	1	1	1	2	SS-1			Sandy LEAN CLAY (CL), dark brown (7.5YR3/2), soft, moist, some fine sand, trace roots
75.3	3.7	3	3	4	7	SS-2			3.7ft: light brown (7.5YR6/4), firm, moist, few fine sand, no HCl reaction
70.3	8.7	2	2	5	7	SS-3			FAT CLAY (CH), very pale brown (10YR4/4), to brown (10YR4/3), firm, moist, to wet, few fine sand, weak to strong HCl reaction, few carbonate nodules
65.3	13.7	WOH	WOH	2	2	SS-4			13.7ft: pale brown (10YR4/3), soft
60.3	18.7	8	18	25	43	SS-5			POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, trace fines, strong HCl reaction
55.3	23.7	5	6	9	15	SS-6			FAT CLAY (CH), very pale brown (10YR7/4), stiff, moist, trace fine sand, trace carbonate nodules, weak HCl reaction, trace magnesium nodules and staining (black)
50.3	28.7	8	11	13	24	SS-7			Sandy SILT (ML), very pale brown (10YR7/3), very stiff, moist to wet, some fine sand, trace carbonate nodules, strong HCl reaction
45.3	33.7	16	10	12	22	SS-8A/B			45.3 / 33.7; 44.8 / 34.2 Silty SAND (SM), very pale brown (10YR7/3), firm, wet, little to some fines, FAT CLAY (CH), light yellowish brown (10YR6/4), very stiff, moist, few fine sand, trace carbonate nodules
40.3	38.7	3	4	4	8	SS-9			38.7ft: light gray (5Y7/1), firm, trace fine sand, trace magnesium stains, 2-3 slicken-sides
35.3	43.7	4	5	6	11	SS-10			43.7ft: light gray (2.5Y7/1), stiff, trace iron nodules, weak HCl reaction
30.3	48.7	4	4	5	9	SS-11			48.7ft: mottled reddish yellow (7.5YR6/6)
25.3	53.7	4	4	6	10	SS-12			25.3 / 53.7 Sandy LEAN CLAY (CL), very pale brown (10YR7/4), stiff, moist, to wet, some fine sand, trace carbonate nodules, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-04	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 79.0 ft (NAVD88)	NORTHING 13,414,277 US ft (NAD83)	EASTING 2,607,437 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/18/07	COMPLETED 9/19/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
22.9					Continued from previous page				
20.3	58.7								Sandy LEAN CLAY (CL), very pale brown (10YR7/4), stiff, moist, to wet, some fine sand, trace carbonate nodules, weak HCl reaction *(continued)*
15.3	63.7	5	5	7	12	SS-13			58.7ft: light gray (2.5YR7/1), stiff, moist, little fine sand, trace carbonate nodules, weak HCl reaction
10.3	68.7	5	7	9	16	SS-14			15.3 — 63.7 FAT CLAY (CH), light gray (2.5YR7/1), very stiff, moist, few fine sand, trace carbonate nodules, weak to strong HCl reaction
5.3	73.7	5	5	7	12	SS-15			68.7ft: very pale brown (10YR7/4), stiff
0.3	78.7	3	7	8	15	SS-16A/B			73.7ft: light gray (10YR7/2), wet, weak HCl reaction 4.5 — 74.5 Silty SAND (SM), light gray (10YR7/2), firm, wet, some fines, weak HCl reaction
-4.7	83.7	2	3	4	7	SS-17			0.3 — 78.7 FAT CLAY (CH), pale brown (10YR6/3), firm, wet, few to little coarse sand to fine gravel, strong HCl reaction
-9.7	88.7	9	8	8	16	SS-18			83.7ft: light gray (2.5Y7/1), very stiff, moist, trace sand, trace fine gravel, few carbonate nodules, weak HCl reaction
-14.7	93.7	6	9	11	20	SS-19			-9.7 — 88.7 Sandy LEAN CLAY (CL), light gray (2.5Y7/1), very stiff, moist, some fine sand, few carbonate nodules, strong HCl reaction
-19.7	98.7	8	8	11	19	SS-20			-14.7 — 93.7 Silty SAND (SM), light gray (2.5Y7/1), firm, wet, some fines, strong HCl reaction
-29.7	108.7	25	30	39	69	SS-21			-19.7 — 98.7 POORLY GRADED SAND with silt (SP-SM), white (2.5Y8/1), very dense, wet, few to little fines, strong HCl reaction 108.7ft: very pale brown (10YR7/1)
		11	26	50	76	SS-22			-30.0 — 109.0 -30.3 — 109.3 FAT CLAY (CH) white (2.5Y8/1), stiff, moist, trace fines sands

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-04	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 79.0 ft (NAVD88)	NORTHING 13,414,277 US ft (NAD83)	EASTING 2,607,437 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/18/07	COMPLETED 9/19/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-33.2					Continued from previous page				
									POORLY GRADED SANDS (SP), very pale brown (10YR7/3), very dense, wet, trace fines, strong HCl reaction *(continued)*
-39.7	118.7								-39.7 — 118.7
		9	9	9	18	SS-23			FAT CLAY (CH), light gray (5Y7/1), very stiff, moist, few fine sand, few carbonate nodules, weak HCl reaction
-49.7	128.7								
		8	7	10	17	SS-24			128.7ft: no HCl reaction
-59.7	138.7								-59.7 — 138.7
		12	21	26	47	SS-25			POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, wet, trace fines, no HCl reaction
									148.7: very firm, trace gravel
-69.7	148.7								-70.0 — 149.0
		18	13	12	25	SS-26A/B			FAT CLAY (CH), light gray (2.5Y7/2), very stiff, moist, few fine to coarse sand, strong HCl reaction
									-71.2 — 150.2
									Boring Terminated at Elevation -71.2 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPK Date 6-12-08
Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-05	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.6 ft (NAVD88)	NORTHING 13,414,770 US ft (NAD83)	EASTING 2,605,822 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/17/07	COMPLETED 9/18/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
77.6					Ground Surface				77.6 / 0.0
77.6 / 73.9	0.0 / 3.7	2	2	2	4	SS-1			FAT CLAY (CH), brown (10YR4/3), soft, moist, few fine sand, trace roots,
73.9 / 68.9	3.7 / 8.7	4	4	5	9	SS-2			LEAN CLAY with sand (CL), light gray (10YR7/1), stiff, moist, little fine sand, few carbonate nodules, no HCl reaction in clay
68.9 / 63.9	8.7 / 13.7	6	8	9	17	SS-3A/B			68.9 / 8.7; FAT CLAY (CH), light gray (10YR7/1), very stiff, moist, trace fine sand, trace to few carbonate nodules; 67.9 / 9.7; Silty SAND (SM), very pale brown (10YR7/3), firm, wet, little to some fines,
63.9 / 58.9	13.7 / 18.7	8	13	17	30	SS-4			POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), very firm, wet, little fines, fine to medium sand
58.9 / 53.9	18.7 / 23.7	7	10	15	25	SS-5			Silty SAND (SM), very pale brown (10YR7/4), very firm, moist to wet, little to some fines, no HCl reaction
53.9 / 48.9	23.7 / 28.7	7	8	10	18	SS-6			LEAN CLAY (CL), light gray (10YR7/2), very stiff, moist, few fine sand, few carbonate nodules, weak HCl reaction in clay, trace manganese oxide staining (black)
48.9 / 43.9	28.7 / 33.7	4	5	8	13	SS-7			FAT CLAY (CH), light gray (2.5YR7/1), mottled reddish brown (7.5YR6/8), stiff, moist, trace fine sand, trace carbonate nodules, no HCl reaction in clay
43.9 / 38.9	33.7 / 38.7	4	10	13	23	SS-8			33.7ft: very stiff
38.9 / 33.9	38.7 / 43.7	18	27	33	60	SS-9			Silty SAND (SM), light gray (2.5YR7/1), very dense, dry to moist, strong HCl reaction
33.9 / 28.9	43.7 / 48.7	16	14	14	28	SS-10			Silty SAND (SM), very pale brown (10YR7/4), very firm, moist to wet, little fines, strong HCl reaction
28.9 / 23.9	48.7 / 53.7	15	23	26	49	SS-11			48.7ft: dense
23.9	53.7	11	15	22	37	SS-12			POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, wet, trace fines, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-05 / DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.6 ft (NAVD88)	NORTHING 13,414,770 US ft (NAD83) / EASTING 2,605,822 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft / DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/17/07 / COMPLETED 9/18/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
21.5					Continued from previous page				
18.9	58.7								POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, wet, trace fines, strong HCl reaction *(continued)* — 18.9 / 58.7
13.9	63.7	6	9	16	25	SS-13			Sandy LEAN CLAY (CL), light gray (2.5YR7/2), very stiff, moist, some fine sand, strong HCl reaction
8.9	68.7	9	11	13	24	SS-14			63.7ft: light gray (2.5YR7/2), moist, little sand, few carbonate nodules, weak HCl reaction in clay — 8.9 / 68.7
3.9	73.7	9	13	12	25	SS-15			Silty SAND (SM), light gray 2.5YR7/2), very firm, wet, some fine sand, strong HCl reaction — 3.9 / 73.7
-1.1	78.7	5	6	11	17	SS-16			Sandy LEAN CLAY (CL), white (2.5YR8/1), very stiff, moist, some fine sands, strong HCl reaction
-6.1	83.7	7	7	13	20	SS-17			78.7ft: trace carbonate nodules — -6.1 / 83.7
-11.1	88.7	7	15	14	29	SS-18			Silty SAND (SM), light gray (2.5YR7/2), very firm, wet, little to some fines, no HCl reaction
-16.1	93.7	14	24	29	53	SS-19			88.7ft: very dense — -16.1 / 93.7
-21.1	98.7	10	15	20	35	SS-20			LEAN CLAY with sand (CL), light gray (2.5Y7/1), hard, moist, little fine sand, few carbonate nodules, strong HCl reaction in clay — -18.4 / 96.0
-31.1	108.7	17	24	22	46	SS-21			POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR7/3), dense, wet, little fines, weak HCl reaction — -29.4 / 107.0
		9	11	16	27	SS-22			Silty SAND (SM), brownish yellow (10YR6/6), very firm, moist to wet, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-05	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 77.6 ft **(NAVD88)**	**NORTHING** 13,414,770 **US ft (NAD83)**	**EASTING** 2,605,822 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.2 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 9/17/07	**COMPLETED** 9/18/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-34.6					Continued from previous page				
									Silty SAND (SM), brownish yellow (10YR6/6), very firm, moist to wet, weak HCl reaction *(continued)*
									-37.4 / 115.0 FAT CLAY (CH), white (5Y8/1), stiff, moist, trace fine sand, no HCl reaction
-41.1	118.7								
		13	17	20	37	SS-23A/B			-41.5 / 119.1 POORLY GRADED SAND (SP), light gray (2.5Y7/2), dense, wet, trace fines, few gravel
-46.1	123.7								-44.9 / 122.5 POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y7/2), very firm, wet, little fines, little gravel, weak HCl reaction
		9	12	14	26	SS-24			
-51.1	128.7								-51.1 / 128.7 Silty SAND (SM), white (10YR8/1), dense, wet, some fines, trace carbonate nodules
		15	18	18	36	SS-25			
-61.1	138.7								-55.4 / 133.0 LEAN CLAY with sand (CL), white (2.5Y8/1), very stiff, moist, little fine sand, strong HCl reaction
		14	10	10	20	SS-26			
-71.1	148.7								-64.4 / 142.0 POORLY GRADED SAND (SP), light gray (5Y7/1), dense, wet, trace fines, few fine gravel, strong HCl reaction
		20	18	22	40	SS-27			-72.6 / 150.2 Boring Terminated at Elevation -72.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

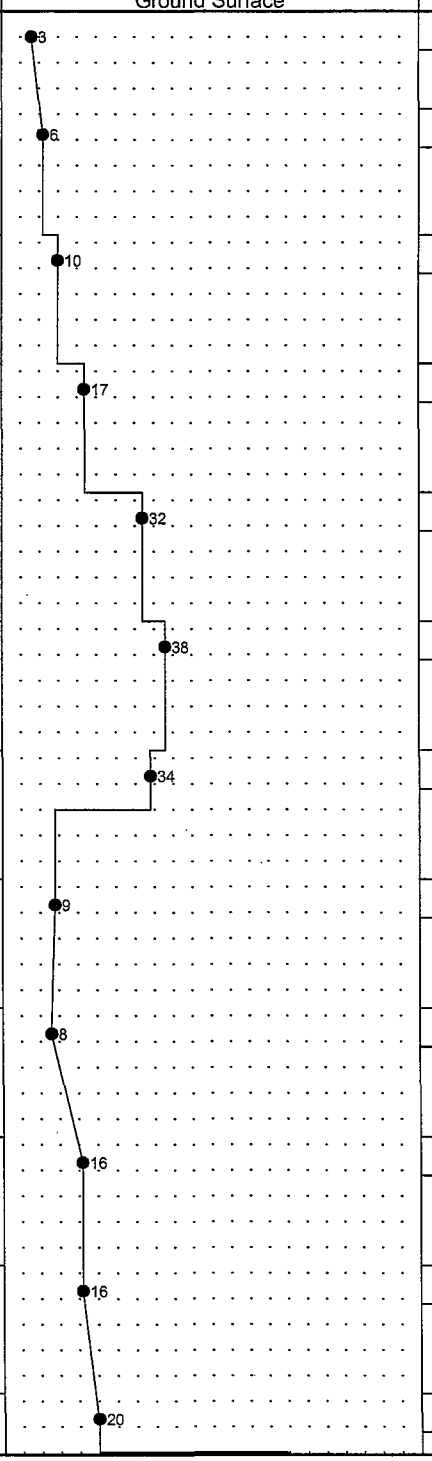
Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-06	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 79.0 ft (NAVD88)	NORTHING 13,415,884 US ft (NAD83)	EASTING 2,604,971 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/14/07	COMPLETED 9/15/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	SOIL AND ROCK DESCRIPTION
79.0						Ground Surface
79.0	0.0	2	1	2	SS-1	LEAN CLAY with sand (CL), dark gray (5YR4/1,) soft, moist, little fine sand, trace roots
75.2	3.8	3	3	3	SS-2	3.8ft: light gray (10YR7/2), firm, moist, few fine sand, no HCl reaction
70.3	8.7	5	5	5	SS-3	FAT CLAY (CH), pale brown (10YR6/3), stiff, moist, few fine to coarse sand, little carbonate nodules, strong HCl reaction
65.3	13.7	3	5	12	SS-4	Sandy LEAN CLAY (CL), pale brown (10YR6/3), very stiff, moist to wet, some fine sand, weak HCl reaction
60.3	18.7	10	15	17	SS-5	Silty SAND (SM), pale brown (10YR6/3), dense, moist to wet, some fines, strong HCl reaction
55.3	23.7	14	17	21	SS-6	POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR7/3), dense, moist, little fines, strong HCl reaction
50.3	28.7	18	22	12	SS-7	POORLY GRADED SAND (SP), very pale brown (10YR7/3), dense, wet, trace fines, weak HCl reaction, trace gravel
48.0	31.0					FAT CLAY (CH), light gray (2.5Y7/2), stiff, moist, trace sand, no HCl reaction
45.3	33.7	3	4	5	SS-8	33.7ft: light gray (10YR7/2)
40.3	38.7	3	4	4	SS-9	38.7ft: few fine sand
35.3	43.7	5	6	10	SS-10	43.7ft: very stiff, weak HCl reaction
30.3	48.7	5	7	9	SS-11	48.7ft: light gray (2.5Y7/2), trace carbonate nodules
25.3	53.7	7	8	12	SS-12	
23.0	56.0					

BLOWS PER FOOT (0, 20, 40, 60, 80, 100)



EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-06	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 79.0 ft (NAVD88)	NORTHING 13,415,884 US ft (NAD83)	EASTING 2,604,971 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/14/07	COMPLETED 9/15/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
22.9					Continued from previous page				
20.3	58.7								POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, wet, trace fines, trace gravel, weak HCl reaction *(continued)*
		15	25	45	70	SS-13			
15.3	63.7								16.0 — 63.0 FAT CLAY (CH), pale brown (10YR6/3), very stiff, moist, few fine sand, few carbonate nodules, weak HCl reaction
		6	7	10	17	SS-14			
10.3	68.7								10.3 — 68.7 Sandy LEAN CLAY (CL), light gray (10YR7/2), very stiff, moist, some fine sand, weak HCl reaction, trace carbonate nodules
		10	9	15	24	SS-15			
5.3	73.7								7.0 — 72.0 FAT CLAY (CH), light gray (10YR7/2), very stiff, moist, few fine sands, weak HCl reaction, trace carbonate nodules
		5	7	11	18	SS-16			
0.3	78.7								3.0 — 76.0 POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, trace fines, strong HCl reaction
		6	14	19	33	SS-17			
-4.7	83.7								
		12	15	20	35	SS-18			
-9.7	88.7								
		26	26	24	50	SS-19			
-14.7	93.7								
		26	31	42	73	SS-20			93.7ft: very dense, fine to coarse grained sand, trace gravel
-19.7	98.7								-19.7 — 98.7 Silty SAND (SM), white (5Y8/1), very dense, wet, little fines, fine to medium grained, trace gravel, strong HCl reaction
		16	28	36	64	SS-21			
-29.7	108.7								-25.0 — 104.0 POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, wet, fine to coarse grained, few fines, trace gravel, strong HCl reaction
		17	22	33	55	SS-22			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-06	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 79.0 ft **(NAVD88)**	**NORTHING** 13,415,884 **US ft (NAD83)**	**EASTING** 2,604,971 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.2 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 9/14/07	**COMPLETED** 9/15/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-33.2					Continued from previous page				
									POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, wet, fine to coarse grained, few fines, trace gravel, strong HCl reaction *(continued)*
									-36.0 — 115.0
									FAT CLAY (CH), light gray (2.5Y7/1), stiff, moist, few fine sand, few carbonate nodules, no HCl reaction in clay
-39.7	118.7								
		6	7	8	15	SS-23			
									-47.0 — 126.0
									LEAN CLAY with sand (CL), white (2.5Y8/1), hard, moist to wet, little fine sand, strong HCl reaction
-49.7	128.7								
		9	20	20	40	SS-24			
									-52.5 — 131.5
									SAND; driller feedback, not sampled
									-58.0 — 137.0
									LEAN CLAY with sand (CL), white (5Y8/1), very stiff, moist, little fine sand, few carbonate nodules
-59.7	138.7								
		7	11	11	22	SS-25			
									-64.0 — 143.0
									POORLY GRADED SAND (SP), very pale brown (10YR8/2), very firm, wet, trace fines, strong HCl reaction, trace rounded gravel
-69.7	148.7								
		30	11	14	25	SS-26			-70.3 — 149.3
									-71.2 — 150.2
									FAT CLAY (CH), white (2.5Y8/1), very stiff, moist, few fine sand, few carbonate nodules
									Boring Terminated at Elevation -71.2 ft

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**	
BORING NO. B-07	**DRILL METHOD:** Mud Rotary	**SAMPLE METHODS:** SPT	**0 HR.** ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	**NORTHING** 13,418,366 US ft (NAD83)	**EASTING** 2,606,568 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 150.2 ft	**DRILL MACHINE** CME-55 LC	**DRILLER:** D. White/O. Smith	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 9/11/07	**COMPLETED** 9/12/07	**CASING DEPTH:** 3.7 ft	**BITS USED:** 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
77.4					Ground Surface				77.4 / 0.0
77.4 / 73.7	0.0 / 3.7	4	2	2	4	SS-1			LEAN CLAY (CL), gray (N/6), soft, moist, few gravel, trace roots
73.7 / 68.7	3.7 / 8.7	4	6	7	13	SS-2			74.4 / 3.0 FAT CLAY (CH), light gray (2.5Y7/2), stiff, moist, few fine to medium sand, carbonate nodules, strong HCl reaction
68.7 / 63.7	8.7 / 13.7	4	6	6	12	SS-3			
63.7 / 58.7	13.7 / 18.7	6	9	11	20	SS-4			13.7ft: very stiff
58.7 / 53.7	18.7 / 23.7	5	7	7	14	SS-5			18.7ft: stiff, trace manganese oxide staining
53.7 / 48.7	23.7 / 28.7	5	5	9	14	SS-6			23.7ft: brownish yellow (10YR6/6), trace fine sand
48.7 / 43.7	28.7 / 33.7	10	12	13	25	SS-7			28.7ft: very stiff, gray (10YR6/1), mottled
43.7 / 38.7	33.7 / 38.7	10	13	16	29	SS-8			33.7ft: dry to moist, few fine sand, trace carbonate nodules
38.7 / 33.7	38.7 / 43.7	5	7	8	15	SS-9			38.7ft: reddish yellow (7.5YR6/6), stiff, moderate HCl reaction
33.7 / 28.7	43.7 / 48.7	6	8	14	22	SS-10			43.7ft: Brownish yellow (10YR6/6), very stiff, few carbonate nodules
28.7 / 23.7	48.7 / 53.7	8	9	11	20	SS-11			28.7 / 48.7 LEAN CLAY with sand (CL), pale yellow (2.5Y7/3), very stiff, moist, little fine sand, few carbonate nodules
23.7	53.7	20	22	28	50	SS-12			26.4 / 51.0 Silty SAND (SM), light gray (2.5Y7/2), dense, wet, little to some fines, moderate HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-07	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	NORTHING 13,418,366 US ft (NAD83)	EASTING 2,606,568 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/11/07	COMPLETED 9/12/07	CASING DEPTH: 3.7 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
21.3					Continued from previous page				
18.7	58.7								Silty SAND (SM), light gray (2.5Y7/2), dense, wet, little to some fines, moderate HCl reaction *(continued)*
13.7	63.7	12	20	25	45	SS-13			
8.7	68.7	7	14	21	35	SS-14			9.9 — 67.5 LEAN CLAY (CL), light gray (5Y7/1), stiff, moist, few fine sand, trace carbonate nodules
3.7	73.7	10	5	7	12	SS-15			
-1.3	78.7	14	9	12	21	SS-16			73.7ft: light gray (5Y7/1), very stiff, moist, some fine sand, few carbonate nodules, weak to moderate HCl reaction
-6.3	83.7	9	18	28	46	SS-17			-1.3 — 78.7 Silty SAND (SM,) light gray (2.5Y7/2), dense, wet, little to some fines, moderate HCl reaction
-11.3	88.7	4	5	7	12	SS-18			-4.1 — 81.5 FAT CLAY (CH), pale yellow (2.5Y7/3), stiff, moist, trace fine sands, moderate HCl reaction, few carbonate nodules
-16.3	93.7	6	12	31	43	SS-19			-11.3 — 88.7 Silty SAND (SM), light gray (10YR7/2), dense, moist, trace carbonate nodules
-21.3	98.7	13	34	38	72	SS-20			-16.3 — 93.7 Silty SAND (SM), light gray (10YR7/2), very dense, wet, little fines, moderate HCl reaction
-31.3	108.7	9	9	12	21	SS-21			-21.3 — 98.7 FAT CLAY (CH), light gray 10YR7/2), very stiff, moist, few fine to medium sand, few carbonate nodules, weak to moderate HCl reaction
		8	10	13	23	SS-22			-31.3 — 108.7 LEAN CLAY with sand (CL), light gray (2.5Y7/2), very stiff, moist, little fine sand, few carbonate nodules, weak to moderate HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-07	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	NORTHING 13,418,366 US ft (NAD83)	EASTING 2,606,568 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/11/07	COMPLETED 9/12/07	CASING DEPTH: 3.7 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-34.8					Continued from previous page				
									-35.6 — 113.0 POORLY GRADED SAND (SP), light brownish gray (10YR6/2), dense, wet, trace fines
-41.3	118.7	20	18	13	31	SS-23			-42.6 — 120.0 FAT CLAY (CH), light gray (2.5Y7/2), very stiff, moist, trace fine sand
-51.3	128.7	7	10	11	21	SS-24			128.7ft: weak to moderate HCl reaction, trace carbonate nodules
									-56.1 — 133.5 Silty SAND (SM), pale yellow (2.5YR8/2), very dense, moist, few fine sand, moderate to strong HCl reaction
-61.3	138.7	20	20	33	53	SS-25			
									-64.6 — 142.0 Silty SAND (SM), very pale brown (10YR7/3), very firm, wet, little fines, moderate HCl reaction
-71.3	148.7	11	15	14	29	SS-26			-72.8 — 150.2
									Boring Terminated at Elevation -72.8 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPJE Date 6-12-08
Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-08	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 81.7 ft (NAVD88)	NORTHING 13,415,810 US ft (NAD83)	EASTING 2,598,938 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/M. Lear	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 10/4/07	COMPLETED 10/5/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
81.7					Ground Surface				81.7 — 0.0
81.7	0.0	2	2	2	4	SS-1			Clayey SAND (SC), dark gray (7.5YR4/1), very loose, moist, some fines, trace roots
78.2	3.5	3	3	4	7	SS-2			78.2 — 3.5 LEAN CLAY (CL), brown (10YR5/3), firm, moist, little fine sand
73.2	8.5	4	2	3	5	SS-3			8.5ft: pale brown (10YR6/3), little sand, trace carbonate nodules
68.2	13.5	4	4	6	10	SS-4			68.2 — 13.5 FAT CLAY (CH), light gray (10YR7/2), stiff, moist, few fine sand, trace carbonate nodules
63.2	18.5	5	6	7	13	SS-5			17.5ft: little fine sand, few carbonate nodules
58.2	23.5	7	8	11	19	SS-6			23.5ft: very stiff, trace carbonate nodules
53.2	28.5	4	5	6	11	SS-7			54.7 — 27.0 FAT CLAY (CH), light gray (2.5Y7/1), mottled brownish yellow (10YR6/6), stiff, moist, trace fine sand and carbonate nodules
48.2	33.5	6	8	11	19	SS-8			33.5ft: very stiff
43.2	38.5	20	10	12	22	SS-9			45.7 — 36.0 Sandy LEAN CLAY (CL), light gray (10YR7/1), very stiff, moist, some fine sand, few carbonate nodules, no HCl reaction
37.9	43.8	6	9	15	24	SS-10			40.7 — 41.0 Silty SAND (SM), light yellowish brown (10YR6/4), very firm, wet, some fines, no HCl reaction
33.2	48.5	8	13	12	25	SS-11			
28.2	53.5	5	14	15	29	SS-12			53.5ft: light brownish gray (10YR6/2), few carbonate nodules

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-08	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 81.7 ft **(NAVD88)**	**NORTHING** 13,415,810 **US ft (NAD83)**	**EASTING** 2,598,938 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.0 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/M. Lear**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 10/4/07	**COMPLETED** 10/5/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
25.6					Continued from previous page				
23.2	58.5								Silty SAND (SM), light yellowish brown (10YR6/4), very firm, wet, some fines, no HCl reaction *(continued)*
18.2	63.5	8	9	12	21	SS-13			Clayey SAND (SC), light brownish gray (10YR6/2), very firm, some fines, trace carbonate nodules
13.2	68.5	7	10	12	22	SS-14			FAT CLAY (CH), light gray (10YR7/1), mottled with brownish yellow (10YR6/6), very stiff, moist, trace fine sand, few carbonate nodules, no HCl reaction in clay
8.2	73.5	5	6	9	15	SS-15			68.5ft: stiff
3.2	78.5	5	6	8	14	SS-16			
-1.8	83.5	7	8	10	18	SS-17			78.5ft: very stiff, few carbonate nodules
-6.8	88.5	7	10	13	23	SS-18			LEAN CLAY with sand (CL), light gray (2.5YR7/1), very stiff, moist, little to some fine sand, trace carbonate nodules, no HCl reaction
-11.8	93.5	6	17	24	41	SS-19			POORLY GRADED SAND (SP), light gray (2.5Y7/2), dense, wet, trace fines, weak HCl reaction
-16.8	98.5	22	34	50	84	SS-20			93.5ft: very dense
-26.8	108.5	28	42	50	92	SS-21			98.5ft: few fine gravel
		5	7	7	14	SS-22			

23.2 — 58.5

18.2 — 63.5

-1.8 — 83.5

-6.8 — 88.5

-24.3 — 106.0

FAT CLAY (CH), very pale brown (10YR7/4), stiff, moist, few fine sand, few carbonate nodules, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-08	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 81.7 ft **(NAVD88)**	**NORTHING** 13,415,810 **US ft (NAD83)**	**EASTING** 2,598,938 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.0 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/M. Lear**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 10/4/07	**COMPLETED** 10/5/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-30.5					Continued from previous page				
									FAT CLAY (CH), very pale brown (10YR7/4), stiff, moist, few fine sand, few carbonate nodules, strong HCl reaction *(continued)*
-36.8	118.5								
		6	8	11	19	SS-23			118.5ft: light gray (10YR7/1), very stiff, trace fine sand, few carbonate nodules, no HCl reaction in clay
									-44.3 — 126.0
									Silty SAND (SM), light gray (5Y7/1), very dense, wet, some fines, strong HCl reaction
-46.8	128.5								
		41	32	33	65	SS-24			
-56.8	138.5								
		50/0.4	na	na	50/0.4	SS-25			138.5ft: little fines
-66.8	148.5								-66.8 — 148.5
		26	33	50	83	SS-26			POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, wet, trace fines, strong HCl reaction
									-68.3 — 150.0
									Boring Terminated at Elevation -68.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-09	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	NORTHING 13,414,944 US ft (NAD83)	EASTING 2,604,898 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/16/07	COMPLETED 9/17/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
77.4					Ground Surface				77.4 / 0.0
77.4	0.0	2	1	2	3	SS-1			FAT CLAY (CH), brown (7.5YR5/4), soft, moist, few fine sand, trace roots
73.7	3.7	3	6	7	13	SS-2			3.7-8.7: light brown (7.5YR6/5), stiff, no HCl reaction
68.7	8.7	3	4	6	10	SS-3			68.7 / 8.7 POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR7/4), loose, dry to moist, little fines, fine to medium grained, no HCl reaction
63.7	13.7	6	8	11	19	SS-4			13.7ft: firm
58.7	18.7	9	17	23	40	SS-5			18.7ft: dense
53.7	23.7	18	33	47	80	SS-6			53.7 / 23.7 POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist, to wet, fine to medium grained, trace fines, no HCl reaction
48.7	28.7	12	9	10	19	SS-7			48.7 / 28.7 Sandy LEAN CLAY (CL), light gray (2.5Y7/1), very stiff, moist, some fine sand, little carbonate nodules, no HCl reaction in clay
43.7	33.7	4	4	6	10	SS-8			43.7 / 33.7 FAT CLAY (CH), reddish yellow (7.5YR7/8), stiff, moist, no sand, weak HCl reaction, 2-3 slickensides
38.7	38.7	5	5	7	12	SS-9			38.7ft: mottled light gray (10YR7/1), few fine sand, few carbonate nodules
33.7	43.7	13	16	14	30	SS-10			33.7 / 43.7 Clayey SAND (SC), light gray (2.5Y7/1), very firm, moist, some fines, few carbonate nodules, strong HCl reaction
28.7	48.7	7	11	16	27	SS-11			28.7 / 48.7 Silty SAND (SM), very pale brown (10YR7/4), very firm, wet, some fines, weak HCl reaction
23.7	53.7	14	16	22	38	SS-12			53.7ft: dense

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST M. Lear
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-09	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	NORTHING 13,414,944 US ft (NAD83)	EASTING 2,604,898 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/16/07	COMPLETED 9/17/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
21.3					Continued from previous page				
18.7	58.7								Silty SAND (SM), very pale brown (10YR7/4), very firm, wet, some fines, weak HCl reaction *(continued)*
		50/0.4	NA	NA	50/0.4	SS-13			58.7ft: no recovery, very dense
13.7	63.7								63ft: light gray (10YR7/2), firm, stong HCl reaction
		15	9	8	17	SS-14A/B			13.0 — 64.4 FAT CLAY (CH), light gray (10YR7/2), very stiff, moist, few fine sand, weak HCl reaction
8.7	68.7								
		5	7	10	17	SS-15			68.7ft: trace carbonate nodules
3.7	73.7								73.7ft: light gray (2.5Y7/2), hard, trace fine sand, strong HCl reaction, few carbonate nodules
		7	11	27	38	SS-16			
-1.3	78.7								
		5	8	12	20	SS-17			78.7ft: very stiff, few fine sand, no HCl reaction, trace iron staining
-6.3	83.7								-6.3 — 83.7
		5	5	11	16	SS-18			LEAN CLAY with sand (CL), light gray (5Y7/1), very stiff, moist, little fine sand, trace carbonate nodules, no HCl reaction in clay
-11.3	88.7								-8.6 — 86.0 Silty SAND (SM), light gray (2.5Y7/2), very firm, wet, little fines, no HCl reaction
		8	10	17	27	SS-19			
-16.3	93.7								-13.6 — 91.0 Clayey SAND (SC), light gray (2.5Y7/2), firm, wet, some fines, no HCl reaction
		4	6	5	11	SS-20			
-21.3	98.7								-21.3 — 98.7
		11	19	24	43	SS-21			POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, trace fines, no HCl reaction
-31.3	108.7								-28.6 — 106.0 POORLY GRADED SAND with clay (SP-SC), brownish yellow (10YR6/6), very firm, wet, little fines, trace gravel, weak HCl reaction
		11	12	17	29	SS-22			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-09	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 77.4 ft **(NAVD88)**	**NORTHING** 13,414,944 **US ft (NAD83)**	**EASTING** 2,604,898 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.2 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 9/16/07	**COMPLETED** 9/17/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-34.8					Continued from previous page				
									-36.6 / 114.0 POORLY GRADED SAND with gravel (SP), white (2.5Y8/1), very dense, wet, trace fines, little fine gravel, weak HCl reaction, few carbonate nodules
-41.3	118.7								
		16	20	32	52	SS-23			
-51.3	128.7								-51.3 / 128.7 Sandy LEAN CLAY (CL), light gray (2.5Y7/1), very stiff, moist, some fine sands, few carbonate nodules, no HCl reaction in clay
		14	10	16	26	SS-24			
-61.3	138.7								-61.3 / 138.7 POORLY GRADED SAND (SP), white (2.5Y8/1), dense, wet, trace fines, fine to medium sand, no HCl reaction
		12	21	29	50	SS-25			
									-64.6 / 142.0 Silty SAND (SM), very pale brown (10YR7/3), dense, wet, little fines, fine sand, no HCl reaction
-71.3	148.7								
		12	19	18	37	SS-26			-72.8 / 150.2 Boring Terminated at Elevation -72.8 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JMX Date 6-12-08

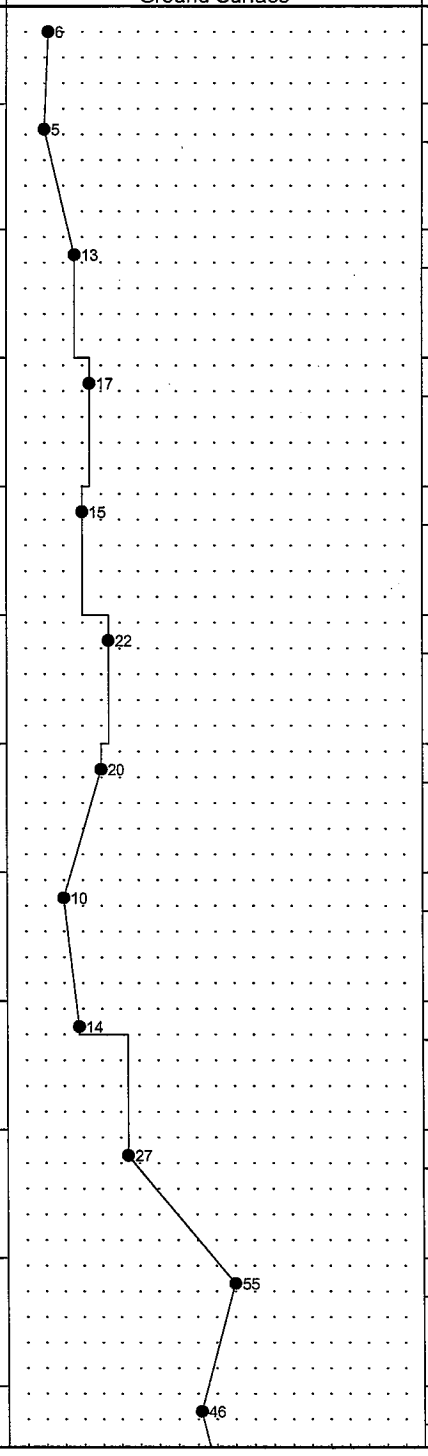
Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-10	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.7 ft (NAVD88)	NORTHING 13,418,474 US ft (NAD83)	EASTING 2,604,737 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.2 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 9/13/07	COMPLETED 9/14/07	CASING DEPTH: 3.5 ft	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
77.7								Ground Surface
77.7	0.0	2	3	3	SS-1			FAT CLAY (CH), gray (7.5YR5/1), firm, moist, trace fine sand, trace roots
73.9	3.8	1	2	3	SS-2			3.8ft: light gray (10YR7/2), weak to moderate HCl reaction
69.0	8.7	3	6	7	SS-3			8.7ft: yellow (10YR7/6), stiff, few fine to medium sand, few carbonate nodules, strong HCl reaction
64.0	13.7	6	8	9	SS-4			LEAN CLAY with sand (CL), light gray (2.5Y7/1), very stiff, moist, little fine sand, few carbonate nodules, trace iron staining
59.0	18.7	6	7	8	SS-5			FAT CLAY (CH), light gray (2.5Y7/1), stiff, moist, few fine sand, few carbonate nodules, weak to moderate HCl reaction, trace iron staining
54.0	23.7	6	10	12	SS-6			LEAN CLAY with sand (CL), light gray (2.5Y7/1), very stiff, moist, little fine sand, no HCl reaction, trace carbonate nodules
49.0	28.7	9	10	10	SS-7			FAT CLAY (CH), light gray (5Y7/2), very stiff, moist, few fine sand, few carbonate nodules, strong HCl reaction
44.0	33.7	4	5	5	SS-8			33.7ft: brownish yellow (10YR6/6), stiff, trace fine sand, trace manganese oxide straining, weak HCl reaction
39.0	38.7	5	6	8	SS-9			
34.0	43.7	11	13	14	SS-10			Silty SAND (SM), pale yellow (2.5Y7/3), very firm, moist, little fines, strong HCl reaction
29.0	48.7	13	25	30	SS-11			48.7ft: very pale brown (10YR7/4), very dense, dry to moist
24.0	53.7	17	17	29	SS-12			53.7ft: dense, moist to wet

BLOWS PER FOOT (0, 20, 40, 60, 80, 100)



77.7 — 0.0
64.0 — 13.7
59.0 — 18.7
54.0 — 23.7
49.0 — 28.7
36.7 — 41.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-10	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 77.7 ft **(NAVD88)**	**NORTHING** 13,418,474 **US ft (NAD83)**	**EASTING** 2,604,737 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.2 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 9/13/07	**COMPLETED** 9/14/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
21.6					Continued from previous page				
19.0	58.7								Silty SAND (SM), pale yellow (2.5Y7/3), very firm, moist, little fines, strong HCl reaction *(continued)*
		22	27	27	54	SS-13			58.7ft: pale yellow (2.5Y8/2), very dense, wet, some fines
									16.7 — 61.0
14.0	63.7								Sandy LEAN CLAY (CL), light gray (2.5Y7/2), very stiff, moist, some fine sand, strong HCl reaction, trace iron staining
		8	10	15	25	SS-14			
9.0	68.7								9.0 — 68.7
		15	7	10	17	SS-15			FAT CLAY (CH), light brownish gray (10YR6/2), very stiff, moist, trace fine sand, weak HCl reaction, trace carbonate nodules
4.0	73.7								73.7ft: no HCl reaction
		7	8	9	17	SS-16			
-1.0	78.7								
		5	6	9	15	SS-17			78.7ft: light gray (2.5Y7/1), stiff, trace manganese oxide staining
-6.0	83.7								
		5	7	10	17	SS-18			83.7ft: very stiff
									-8.3 — 86.0
-11.0	88.7								Silty SAND (SM), light gray (2.5Y7/1), hard, moist to wet, few carbonate nodules, strong HCl reaction
		7	17	23	40	SS-19			
-16.0	93.7								-15.3 — 93.0
		15	13	16	29	SS-20			FAT CLAY with sand (CH), pale yellow (2.5Y8/2), very stiff, moist, little fine sand, few carbonate nodules, strong HCl reaction
-21.0	98.7								97.0ft: light gray (10YR7/2), moist, few fine to medium sand
		8	12	14	26	SS-21			
-31.0	108.7								
		6	7	9	16	SS-22			108.7ft: very pale brown (10YR7/4), wet, trace fine sand, trace carbonate nodules, moderate HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Lear	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-10	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 77.7 ft **(NAVD88)**	**NORTHING** 13,418,474 **US ft (NAD83)**	**EASTING** 2,604,737 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.2 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 9/13/07	**COMPLETED** 9/14/07	**CASING DEPTH: 3.5 ft**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-34.5					Continued from previous page				
									FAT CLAY with sand (CH), pale yellow (2.5Y8/2), very stiff, moist, little fine sand, few carbonate nodules, strong HCl reaction *(continued)*
									-37.3 — 115.0
									POORLY GRADED SAND (SP), very pale brown (10YR7/3), very firm, wet, trace fines, fine to coarse grained with trace gravel, weak HCl reaction
-41.0	118.7								
		11	13	12	25	SS-23			
									-44.3 — 122.0
									Driller indicates in and out of possible CLAY (CH) layers from 122.0 to 126.0 feet
									-48.3 — 126.0
									Silty SAND (SM), light gray (10YR7/2), dense, wet, little to some fines, few gravel, weak HCl reaction, trace carbonate nodules
-51.0	128.7								
		12	18	31	49	SS-24			
-61.0	138.7								
		26	37	40	77	SS-25			138.7ft: very dense, little fines, fine to medium grained
									-65.8 — 143.5
									Driller indicates possible CLAY (CH) layers from 143.5 to 145.0 feet
									-67.3 — 145.0
									Silty SAND (SM), light gray (10YR7/2), very dense, wet, little fines, fine to medium grained, weak HCl reaction
-71.0	148.7								
		23	27	24	51	SS-26			
									-72.5 — 150.2
									Boring Terminated at Elevation -72.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By J.D.Z.G. Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 6

BECHTEL PROJECT NO.: 25352		**COUNTY** Victoria	**GEOLOGIST** D. Haug
SITE DESCRIPTION Exelon COL Project (Victoria Site)		**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**
BORING NO. B-11	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: Sieve cuttings**	**0 HR.** ND
GROUND SURFACE ELEV. 74.5 ft **(NAVD88)**	**NORTHING** 13,411,479 **US ft (NAD83)**	**EASTING** 2,607,866 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 310.0 ft	**DRILL MACHINE** Failing 1500	**DRILLER: A. Palacios/Toriba/Escabar**	**HAMMER (ID)** NA
DATE STARTED 10/22/07	**COMPLETED** 10/23/07	**CASING DEPTH: N/A**	**BITS USED: 5" Tricone**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
74.5					Ground Surface				74.5 — 0.0
									FAT CLAY (CH), dark gray (7.5YR4/1), few sand
									5.0-10.0ft: light yellowish brown (10YR6/4), fine sand
									10.0-15.0ft: carbonate nodules
									20.0-25.0ft: very pale brown (10YR7/4), mottled greenish gray (10Y7/1)
									25.0-30.0ft: black staining
									40.0-45.0ft: pale yellow (2.5Y7/3), few sand
									45.0-50.0ft: little fine sand, trace coarse sand, increased sand content with depth
									19.5 — 55.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-11	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 74.5 ft (NAVD88)	NORTHING 13,411,479 US ft (NAD83)	EASTING 2,607,866 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/22/07	COMPLETED 10/23/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
18.4					Continued from previous page				
									Clayey SAND (SC), pale yellow (2.5Y7/3), fine to medium grained, some fines *(continued)*
									9.5 — 65.0
									FAT CLAY (CH), pale brown (10YR6/3), trace sand
									80.0-85.0ft: little sand
									-25.5 — 100.0
									POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), fine to coarse grained
									-30.5 — 105.0
									POORLY GRADED SAND (SP), pale brown (10YR6/3), fine to coarse grained

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-11	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 74.5 ft (NAVD88)	NORTHING 13,411,479 US ft (NAD83)	EASTING 2,607,866 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/22/07	COMPLETED 10/23/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-37.7					Continued from previous page				
									POORLY GRADED SAND (SP), pale brown (10YR6/3), fine to coarse grained *(continued)*
									-45.5 — 120.0
									Clayey SAND (SC), pale brown (10YR6/3), fine to coarse grained, little fines
									140.0-145.0ft: fine to medium grained, some fines
									145.0-150.0ft: little sand
									-80.5 — 155.0
									POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), fine grained, little fines

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-11	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 74.5 ft (NAVD88)	NORTHING 13,411,479 US ft (NAD83)	EASTING 2,607,866 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/22/07	COMPLETED 10/23/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-93.8					Continued from previous page				
									POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), fine grained, little fines *(continued)*
									-95.5 — 170.0
									FAT CLAY with sand (CH), little fine to medium grained sand
									175.0-180.0ft: pale brown (10YR6/3), few sand
									-110.5 — 185.0
									POORLY GRADED SAND with clay (SP-SC), fine to medium grained
									-115.5 — 190.0
									POORLY GRADED SAND (SP), pale brown (10YR6/3), fine grained
									-120.5 — 195.0
									Clayey SAND (SC), pale brown (10YR6/3), fine grained, little fines
									-130.5 — 205.0
									FAT CLAY with sand (CH), brown (7.5YR5/4), trace fine to coarse sand
									210.0-215.0ft: pale brown (10YR6/3), little fine to medium sand
									-145.5 — 220.0
									POORLY GRADED SAND (SP), pale brown (10YR6/3)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-11	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 74.5 ft (NAVD88)	NORTHING 13,411,479 US ft (NAD83)	EASTING 2,607,866 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/22/07	COMPLETED 10/23/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-149.9					Continued from previous page				
									POORLY GRADED SAND (SP), pale brown (10YR6/3) *(continued)*
									-160.5 — 235.0
									Clayey SAND (SC), pale brown (10YR6/3), fine to medium grained, few fines
									-165.5 — 240.0
									FAT CLAY with sand (CH), pale brown (10YR6/3), little fine to medium grained sand
									245.0-250.0ft: little sand
									255.0-260.0ft: trace coarse sand
									-185.5 — 260.0
									Clayey SAND (SC), pale brown (10YR6/3), fine to coarse grained, little fines

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-11	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 74.5 ft (NAVD88)	NORTHING 13,411,479 US ft (NAD83)	EASTING 2,607,866 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/22/07	COMPLETED 10/23/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-206.0					Continued from previous page				
									280.0-285.0ft: possible alternating sand and clay layers based on rig chatter Clayey SAND (SC), pale brown (10YR6/3), fine to coarse grained, little fines *(continued)*
									-210.5 — 285.0
									POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), fine to medium grained, few fines
									290.0-295.0ft: possible interbedded and alternating sand and clay layers based on rig chatter
									-220.5 — 295.0
									FAT CLAY with sand (CH), pale brown (10YR6/3), few fine to medium grained sand
									-235.5 — 310.0
									Boring Terminated at Elevation -235.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPK Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 6

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-12	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,418,446 US ft (NAD83)	EASTING 2,606,546 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/23/07	COMPLETED 10/24/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	▼ MOI	LOG	SOIL AND ROCK DESCRIPTION
76.7					Ground Surface				76.7 0.0
									FAT CLAY (CH), black (10YR2/1), no sand
									5.0-10.0ft: light gray (10YR7/1)
									10.0-15.0ft: pale yellow (2.5Y7/3), trace sand
									25.0-30.0ft: mottled light brown (7.5YR6/4), no sand
									35.0-40.0ft: light greenish gray (10Y7/1), mottled light yellowish brown (10YR6/4)
									40.0-45.0ft: reddish yellow (7.5YR6/6), mottled light greenish gray (10Y7/1)
									45.0-50.0ft: brownish yellow (10YR6/6), mottled light greenish gray (10Y7/1), black staining
									50.0-55.0ft: brownish yellow (10YR6/6), trace sand
									55.0-60.0ft: little sand, increasing sand content with

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-12	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,418,446 US ft (NAD83)	EASTING 2,606,546 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/23/07	COMPLETED 10/24/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
20.6					Continued from previous page				
									depth FAT CLAY (CH), black (10YR2/1), no sand *(continued)*
									16.7 — 60.0 POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/4), fine to medium grained
									11.7 — 65.0 FAT CLAY with sand (CH), light yellowish brown (10YR6/4), little fine to medium grained sand, carbonate nodules
									75.0-80.0ft: few sand
									80.0-85.0ft: brownish yellow (10YR6/6), mottled light greenish gray (10Y7/1),
									90.0-95.0ft: no mottling, little fine to medium grained sand
									95.0-100.0ft: mottled light greenish gray (10Y7/1), trace fine grained sand
									100.0-105.0ft: interbedded sand and clay layers, little fine to medium grained sand

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-12	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,418,446 US ft (NAD83)	EASTING 2,606,546 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/23/07	COMPLETED 10/24/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-35.5					Continued from previous page				
									FAT CLAY with sand (CH), light yellowish brown (10YR6/4), little fine to medium grained sand, carbonate nodules *(continued)*
									-38.3 — 115.0
									POORLY GRADED SAND with clay (SP-SC), yellowish brown (10YR5/4), fine to coarse grained
									-43.3 — 120.0
									FAT CLAY (CH), brownish yellow (10YR6/6), mottled greenish gray (10YR6/6), few fine to medium grained sand
									125.0-130.0ft: no mottling
									130.0-135.0ft: interbedded sand layers based on rig chatter
									140.0-145.0ft: pale yellow (2.5Y7/3)
									145.0-150.0ft: no recovery
									-73.3 — 150.0
									Clayey SAND (SC), pale yellow (2.5Y7/3), fine to medium grained, little fines
									160.0-165.0ft: trace coarse sand, few to little fines

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-12	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,418,446 US ft (NAD83)	EASTING 2,606,546 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/23/07	COMPLETED 10/24/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-91.6					Continued from previous page				
									Clayey SAND (SC), pale yellow (2.5Y7/3), fine to medium grained, little fines *(continued)*
									-93.3 — 170.0
									POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), fine to coarse grained, trace fines
									175.0-180.0ft: no fines
									195.0-200.0ft: some interbedded clay layers
									-123.3 — 200.0
									FAT CLAY with sand (CH), pale yellow (10YR6/6), little sand
									205.0-210.0ft: brownish yellow (10YR6/6), mottled light greenish gray (10Y7/1), no sand
									210.0-215.0ft: very little return, no sample
									215.0-220.0ft: very little return, likely interbedded sand and clay based on rig chatter
									-143.3 — 220.0
									Clayey SAND (SC), brownish yellow (10YR6/6), fine to medium sand, few to little fines, possible interbedded clay in sand layers based on rig chatter

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-12	DRILL METHOD: Mud Rotary	SAMPLE METHODS: Sieve cuttings	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,418,446 US ft (NAD83)	EASTING 2,606,546 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 310.0 ft	DRILL MACHINE Failing 1500	DRILLER: A. Palacios/Toriba/Escabar	HAMMER (ID) NA
DATE STARTED 10/23/07	COMPLETED 10/24/07	CASING DEPTH: N/A	BITS USED: 5" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-147.7					Continued from previous page				
									-148.3 — 225.0 POORLY GRADED SAND (SP), brownish yellow (10YR6/6) 230.0-235.0ft: trace fines 240.0-245.0ft: fine to medium sand
									-168.3 — 245.0 FAT CLAY with sand (CH), brownish yellow (10YR6/6), little fine to medium grained sand, likely interbedded sand and clay layers based on rig chatter
									-188.3 — 265.0 Clayey SAND (SC), brownish yellow (10YR6/6), fine to coarse grained, some fines, possible interbedded clay in sand layers based on rig chatter

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** D. Haug	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-12	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: Sieve cuttings**	**0 HR.** ND
GROUND SURFACE ELEV. 76.7 ft **(NAVD88)**	**NORTHING** 13,418,446 **US ft (NAD83)**	**EASTING** 2,606,546 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 310.0 ft	**DRILL MACHINE** Failing 1500	**DRILLER: A. Palacios/Toriba/Escabar**	**HAMMER (ID)** NA
DATE STARTED 10/23/07	**COMPLETED** 10/24/07	**CASING DEPTH: N/A**	**BITS USED: 5" Tricone**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-203.8					Continued from previous page				
									280.0-285.0ft: fine to medium grained, little fines Clayey SAND (SC), brownish yellow (10YR6/6), fine to coarse grained, some fines, possible interbedded clay in sand layers based on rig chatter *(continued)*
									290.0-295.0ft: some fines
									-218.3 295.0
									FAT CLAY with sand (CH), brownish yellow (10YR6/6), little fine to medium grained sand, likely interbedded sand in clay layers based on rig chatter
									-233.3 310.0
									Boring Terminated at Elevation -233.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPK Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 6

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST C. Gandy
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2301A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 81.2 ft (NAVD88)	NORTHING 13,414,430 US ft (NAD83)	EASTING 2,596,278 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 12/18/07	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
81.2					Ground Surface				
81.2	0.0	2	5	4	9	SS-1			FAT CLAY with sand (CH), dark gray (10YR4/1), stiff, moist, little sand, no HCl reaction, roots, trace carbonate nodules
77.7	3.5	4	6	6	12	SS-2			Clayey SAND (SC), light gray (10YR7/2), firm, moist, fine grained, little to some fines, no HCl reaction, organics, carbonate nodules
75.2	6.0	3	3	3	6	SS-3			FAT CLAY with sand (CH), light gray (10YR7/2), firm, moist, little sand, no HCl reaction, organics, carbonate nodules, ferrous staining
72.7	8.5	4	4	5	9	SS-4			8.5ft: stiff, some sand
70.2	11.0	5	6	7	13	SS-5			
67.7	13.5	4	5	7	12	SS-6			13.5ft: very pale brown (10YR7/3), little sand, weak HCl reaction
62.7	18.5	6	6	9	15	SS-7			18.5ft: some sand
57.7	23.5	5	5	8	13	SS-8			23.5ft: brownish yellow (10YR6/6), mottled light greenish gray (10Y8/1), few sand, strong HCl reaction
52.7	28.5	9	12	15	27	SS-9			28.5ft: very pale brown (10YR8/2), very stiff
47.7	33.5	12	14	19	33	SS-10			33.5ft: light gray (10YR7/2), hard
44.7	36.5								Clayey SAND (SC), very pale brown (10YR8/3), very firm, moist, fine grained, some fines, strong HCl reaction, organics, ferrous staining
42.7	38.5	11	10	14	24	SS-11			
37.7	43.5	21	27	12	39	SS-12			43.5ft: pinkish white (2.5YR8/2), dense, little fines
32.7	48.5	8	11	17	28	SS-13			Sandy FAT CLAY (CH), light yellowish brown (10YR6/4), very stiff, moist, some sand, weak HCl reaction, ferrous staining, carbonate nodules, organics
27.7	53.5	14	24	28	52	SS-14			POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist, fine grained, trace fines, no HCl reaction, trace carbonate nodules

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2301A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 81.2 ft (NAVD88)	NORTHING 13,414,430 US ft (NAD83)	EASTING 2,596,278 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 12/18/07	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
25.1					Continued from previous page				
22.7	58.5	17	29	37	66	SS-15			POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist, fine grained, trace fines, no HCl reaction, trace carbonate nodules *(continued)*
									19.2 — 62.0
17.7	63.5	5	6	7	13	SS-16			FAT CLAY (CH), light brownish gray (10YR6/2), mottled, stiff, moist, few sand, weak HCl reaction, organics, ferrous staining, trace carbonate nodules
12.7	68.5	9	9	10	19	SS-17			68.5ft: very pale brown (10YR7/3), very stiff
7.7	73.5	7	9	11	20	SS-18			73.5ft: light gray (10YR7/2), little sand, no to strong HCl reaction
2.7	78.5	5	7	11	18	SS-19			78.5ft: some sand
-2.3	83.5	14	12	15	27	SS-20			
-7.3	88.5	28	38	50/0.3	88/0.8	SS-21			88.5ft: very pale brown (10YR8/2), hard, dry to moist
-12.3	93.5								-12.3 — 93.5
-17.3	98.5	26	38	35	73	SS-22			POORLY GRADED SAND (SP), very pale brown (10YR8/2), very dense, wet, fine grained, trace fines, strong HCl reaction
									-17.3 — 98.5
-27.3	108.5	34	34	34	68	SS-23			Sandy FAT CLAY (CH), light gray (10YR7/2), hard, moist, some sand, strong HCl reaction, carbonate nodules, sand seams
		5	5	6	11	SS-24			108.5ft: stiff, little sand, ferrous staining

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2301A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 81.2 ft (NAVD88)	NORTHING 13,414,430 US ft (NAD83)	EASTING 2,596,278 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 12/18/07	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.0					Continued from previous page				
									Sandy FAT CLAY (CH), light gray (10YR7/2), hard, moist, some sand, strong HCl reaction, carbonate nodules, sand seams *(continued)*
-37.3	118.5								
		8	9	11	20	SS-25			118.5ft: mottled yellow (10YR7/8), very stiff, few sand
									-43.8 — 125.0
									POORLY GRADED SAND (SP) very pale brown (10YR8/2), very dense, moist, fine grained, trace fines, no HCl reaction
-47.3	128.5								
		22	34	41	75	SS-26			
-57.3	138.5								
		33	37	50/0.2	87/0.7	SS-27			138.5ft: medium grained, strong HCl reaction
									-64.3 — 145.5
									FAT CLAY (CH), very pale brown (10YR8/3), very stiff, moist, trace sand, strong HCl reaction, ferrous staining, organics
-67.3	148.5								
		8	10	14	24	SS-28			
									-76.3 — 157.5
-77.3	158.5								
		39	50/0.5		89/1.0	SS-29			POORLY GRADED SAND (SP), very pale brown (10YR8/4), very dense, moist to wet, fine grained, trace fines, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2301A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 81.2 ft (NAVD88)	NORTHING 13,414,430 US ft (NAD83)	EASTING 2,596,278 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 12/18/07	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-87.1					Continued from previous page				
-87.3	168.5	10	13	14	27	SS-30			FAT CLAY with sand (CH), very pale brown (10YR7/3), very stiff, moist, little sand, strong HCl reaction, carbonate nodules, ferrous staining, trace organics
-97.3	178.5	10	21	27	48	SS-31			178.5ft: hard, 0.3ft thick seam of sand
-107.3	188.5	50/0.4			50/0.4	SS-32			POORLY GRADED SAND (SP), very pale brown (10YR7/4), very dense, moist, fine grained, trace fines, strong HCl reaction
-113.8	195.0								Sandy FAT CLAY (CH), light gray (10YR7/2), very stiff to hard, moist, some sand, no HCl reaction
-117.3	198.5	5	10	9	19	SS-33			
-137.3	218.5	13	14	29	43	SS-34			218.5ft: hard

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2301A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 81.2 ft **(NAVD88)**	**NORTHING** 13,414,430 **US ft (NAD83)**	**EASTING** 2,596,278 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 300.0 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 12/18/07	**COMPLETED** 1/10/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Wing Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-143.2					Continued from previous page				
									Sandy FAT CLAY (CH), light gray (10YR7/2), very stiff to hard, moist, some sand, no HCl reaction *(continued)*
-157.3	238.5								
		11	14	18	32	SS-35			238.5ft: few sand, weak HCl reaction
									-163.8 245.0
									POORLY GRADED SAND (SP), very pale brown (10YR8/3), very dense, moist to wet, fine to medium grained, trace fines, strong HCl reaction, thin clay seams
-177.3	258.5								
		32	27	30	57	SS-36			
									-185.3 266.5
									FAT CLAY (CH), very pale brown (10YR8/4), hard, moist, trace to few sand, strong HCl reaction, ferrous staining
-197.3	278.5								
		19	20	28	48	SS-37			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2301A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 81.2 ft **(NAVD88)**	**NORTHING** 13,414,430 **US ft (NAD83)**	**EASTING** 2,596,278 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 300.0 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 12/18/07	**COMPLETED** 1/10/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Wing Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-199.3					Continued from previous page				
									FAT CLAY (CH), very pale brown (10YR8/4), hard, moist, trace to few sand, strong HCl reaction, ferrous staining *(continued)*
-217.3	298.5	24	44	46	90	SS-38			-218.8
									Boring Terminated at Elevation -218.8 ft

300.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPX Date 6-2-08
Checked By KAW Date 6.12.08

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST A. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2302A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,407,371 US ft (NAD83)	EASTING 2,598,389 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 1/2/08	COMPLETED 1/3/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.3					Ground Surface				80.3 / 0.0
80.3	0.0	5	3	3	6	SS-1			Sandy LEAN CLAY (CL), very dark gray (5YR3/1), firm, moist, fine to medium grained sand, no HCl reaction, organics
76.8	3.5								76.7 / 3.6: 3.5ft: split sample: SS-2A from 3.5-3.6ft and SS-2B from 3.6-5.0ft
		4	5	6	11	SS-2 A/B			Sandy FAT CLAY (CH), dark gray (10YR4/1), stiff, moist, fine to coarse grained sand, white nodules, strong HCl reaction, organics
74.3	6.0								74.3 / 6.0
		5	6	7	13	SS-3			FAT CLAY with sand (CH), pale yellow (2.5Y8/3), stiff, moist, fine to medium grained sand, organics
71.8	8.5								
		3	4	5	9	SS-4			
69.3	11.0								69.3 / 11.0
		7	7	8	15	SS-5			Sandy LEAN CLAY (CL), pale yellow (2.5Y8/3), stiff, moist, fine to medium grained sand, strong HCl reaction
67.8	12.5								67.8 / 12.5
		7	9	14	23	SS-6			POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y7/3), very firm, moist, fine to medium grained sand, subangular, strong HCl reaction (visual)
61.8	18.5								
		9	13	21	34	SS-7			18.5ft: dense, fine to coarse grained sand, fine gravel (visual)
56.8	23.5								56.8 / 23.5
		6	7	10	17	SS-8			FAT CLAY with sand (CH), mottled light gray (2.5Y7/2) and olive yellow (2.5Y6/6), very stiff, moist, fine to coarse grained sand, weak HCl reaction
51.8	28.5								51.8 / 28.5
		5	5	6	11	SS-9			FAT CLAY (CH), mottled pale yellow (5Y8/2) and brownish yellow (10YR6/6), stiff, moist, fine to medium grained sand, weak HCl reaction
46.8	33.5								46.8 / 33.5
		7	7	10	17	SS-10			LEAN CLAY (CL), mottled pale yellow (5Y8/2) and brownish yellow (10YR6/6), very stiff, moist, fine to medium grained sand, strong HCl reaction
41.8	38.5								41.8 / 38.5
		7	7	13	20	SS-11			FAT CLAY (CH), mottled pale yellow (5Y8/2) and brownish yellow (10YR6/6), very stiff, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction
36.8	43.5								36.8 / 43.5
		6	7	11	18	SS-12			LEAN CLAY with sand (CL), mottled pale yellow (5Y8/2) and brownish yellow (10YR6/6), very stiff, moist, fine to coarse grained sand, black staining, strong HCl reaction
31.8	48.5								31.8 / 48.5
		10	12	11	23	SS-13			LEAN CLAY (CL), mottled light gray (2.5Y7/2) and yellow (2.5Y7/6), very stiff, moist, fine to medium grained sand, fine white particles, strong HCl reaction
26.8	53.5								53.5ft: split sample: SS-14A from 53.5-54.0ft and SS-14B from 54.0-55.0ft
		7	8	10	18	SS-14 A/B			26.8 / 53.5; 26.3 / 54.0: Sandy LEAN CLAY (CL), mottled light gray (2.5Y7/2) and yellow (2.5Y7/6), very stiff, moist, fine to medium grained sand, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2302A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 80.3 ft (NAVD88)	NORTHING 13,407,371 US ft (NAD83)	EASTING 2,598,389 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 1/2/08	COMPLETED 1/3/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.2					Continued from previous page				
21.8	58.5	8	7	10	17	SS-15 A/B			Clayey SAND (SC), light gray (5Y7/2), firm, moist, fine to medium grained sand, no HCl reaction (visual) *(continued)* 58.5ft: split sample: SS-15A from 58.5-59.0ft and SS-15B from 59.0-60.0ft 58.5ft: fine to coarse grained sand (visual)
16.8	63.5	11	14	20	34	SS-16			Sandy LEAN CLAY (CL), very pale yellow (10YR7/3), very stiff, moist, fine to medium grained sand, strong HCl reaction (21.3–59.0) POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y7/3), dense, moist, few fines, no HCl reaction (19.3–61.0)
11.8	68.5	6	7	10	17	SS-17			FAT CLAY (CH), mottled pale yellow (2.5Y8/2) and yellow (2.5Y7/6), very stiff, moist, fine to medium grained sand, strong HCl reaction (14.3–66.0)
6.8	73.5	6	7	10	17	SS-18			FAT CLAY with sand (CH), mottled pale yellow (2.5Y8/2), very stiff, moist, fine to medium grained sand, brown staining and fine white grains, weak HCl reaction (6.8–73.5)
1.8	78.5	8	9	10	19	SS-19			78.5ft: carbonate nodules
-3.2	83.5	10	12	14	26	SS-20			Silty SAND (SM), pale yellow (2.5Y8/2), very firm, moist, fine to medium grained sand, no HCl reaction (visual) (-2.7–83.0)
-8.2	88.5	50/0.4			50/0.4	SS-21			POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), very dense, moist, fine sand, trace fines, weak HCl reaction (-8.2–88.5)
-13.2	93.5	50/0.4			50/0.4	SS-22			93.5ft: coarse grained sand, subangular
-18.2	98.5	7	11	12	23	SS-23			Clayey SAND (SC), mottled pale yellow (2.5Y7/4) and pale yellow (2.5Y7/3), very firm, moist, fine to medium grained sand, strong HCl reaction (-18.2–108.5)
-28.2	108.5	16	30	33	63	SS-24			Silty SAND (SM), yellow (2.5Y8/6), very dense, moist, fine to medium grained sand, weak HCl reaction (-28.2–)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2302A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 80.3 ft **(NAVD88)**	**NORTHING** 13,407,371 **US ft (NAD83)**	**EASTING** 2,598,389 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.0 ft	**DRILL MACHINE** CME-55 LC	**DRILLER: D. White/O. Smith**	**HAMMER (ID)** 140 lb. Auto (MEC 02)
DATE STARTED 1/2/08	**COMPLETED** 1/3/08	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.9					Continued from previous page				
-38.2	118.5								Silty SAND (SM), yellow (2.5Y8/6), very dense, moist, fine to medium grained sand, weak HCl reaction *(continued)*
-48.2	128.5	5	6	7	13	SS-25			FAT CLAY (CH), pale yellow (2.5Y8/2), stiff, moist, black staining and white nodules,
-58.5	138.8	7	12	17	29	SS-26			LEAN CLAY with sand (CL), very pale brown (10YR8/3), very stiff, fine to medium grained sand, carbonate nodules
-63.2	143.5	50/0.1			50/0.1	SS-27			138.5ft: no recovery, hard
-68.2	148.5	6	8	13	21	SS-28			FAT CLAY (CH), light gray (10YR7/2), very stiff, moist, fine to medium grained sand, carbonate nodules, ferrous staining, organics
-69.7	150.0	13	26	33	59	SS-29			Clayey SAND (SC), light gray (2.5Y7/2), very dense, moist, fine to medium grained sand, strong HCl reaction (visual)
									Boring Terminated at Elevation -69.7 ft

-38.2 118.5 — -48.2 128.5 — -63.2 143.5 — -67.7 148.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPK Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL-Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2302UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 80.0 ft (NAVD88)	NORTHING 13,407,373 US ft (NAD83)	EASTING 2,598,406 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 147.3 ft	DRILL MACHINE CME-75	DRILLER: G. Bray/T. Ellerson	HAMMER (ID) NA
DATE STARTED 2/5/08	COMPLETED 2/12/08	CASING DEPTH: N/A	BITS USED: 6" Rollercone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.0					Ground Surface				80.0 0.0
									Begin sampling by Shelby tube
71.5	8.5					UD-1			8.5ft: FAT CLAY with sand (CH), pale yellow (2.5Y7/4), moist, strong HCl reaction - 2.0ft recovery
69.0	11.0					UD-2			10.5ft: FAT CLAY with sand (CH), pale yellow (2.5Y7/4), moist, strong HCl reaction 11.0ft: Sandy LEAN CLAY (CL), pale yellow (2.5Y8/2), and yellowish brown (10YR5/6), moist, some sand, strong HCl reaction - 0.95ft recovery
66.5	13.5					UD-3			12.0ft: POORLY GRADED SAND with silt (SP-SM), pale yellow, (2.5Y8/3), moist, few fines, strong HCl reaction 13.5ft: Silty SAND (SM), pale yellow (2.5Y7/3), moist, few fines, fine to coarse grained sand, strong HCl reaction - 1.35ft recovery
51.5	28.5					UD-4			28.5ft: FAT CLAY (CH), mottled pale yellow (5Y8/2), and yellowish brown (10YR5/6), moist, no HCl reaction - 1.65ft recovery
41.5	38.5					UD-5			38.5ft: FAT CLAY (CH), light gray (5Y7/2), moist, no sand, strong HCl reaction - 1.5ft recovery 40.0ft: brownish yellow (10YR6/6), few sand, carbonate nodules
31.5	48.5					UD-6			48.5ft: LEAN CLAY (CL), light yellowish brown (2.5Y6/3), moist, no sand, strong HCl reaction - 0.8ft recovery 50.0ft: trace sand and gravel

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2302UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 80.0 ft (NAVD88)	NORTHING 13,407,373 US ft (NAD83)	EASTING 2,598,406 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 147.3 ft	DRILL MACHINE CME-75	DRILLER: G. Bray/T. Ellerson	HAMMER (ID) NA
DATE STARTED 2/5/08	COMPLETED 2/12/08	CASING DEPTH: N/A	BITS USED: 6" Rollercone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
23.9					Continued from previous page				
21.0	59.0					UD-7			59.0ft: Silty, clayey SAND (SC-SM), light gray (2.5Y7/2), moist, fine to coarse grained sand, fine gravel, strong HCl reaction - 1.0ft recovery
19.0	61.0					UD-8			60.0ft: Silty, clayey SAND (SC-SM), light gray (5Y7/2), moist, strong HCl reaction
16.5	63.5					UD-9			61.0ft: Silty SAND (SM), light gray (2.5Y7/2), moist, some fines, strong HCl reaction - 1.6ft recovery
14.0	66.0					UD-10			62.8ft: POORLY GRADED SAND (SP), light gray (2.5Y7/2), moist, medium grained sand, no HCl reaction
10.5	69.5					UD-11			63.5ft: POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR7/3), moist, fine to medium grained sand, few fines, no HCl reaction (visual) - 1.1ft recovery Changed sample method to Pitcher barrel 66.0ft: FAT CLAY (CH), light gray (2.5Y7/2), moist, fine to coarse grained sand, strong HCl reaction - 1.0ft recovery Changed sample method to Shelby tube 69.5ft: FAT CLAY (CH), light gray (2.5Y7/2), mottled light yellowish brown (10YR6/4), moist, fine to coarse grained sand, fine gravel, strong HCl reaction - 2.0ft recovery
1.5	78.5					UD-12			78.5ft: FAT CLAY (CH), light gray (2.5Y7/2), carbonate nodules, fine gravel, weak HCl reaction - 1.6ft recovery
-8.5	88.5					UD-13			Changed sampling method to Pitcher barrel 88.5ft: POORLY GRADED SAND (SP), very pale brown (10YR7/4), moist to wet, fine grained sand, trace fines, weak HCl reaction - 1.85ft recovery 91.0ft: POORLY GRADED SAND with clay (SP-SC), pale brown (10YR8/2), moist, fine grained sand, few fines, strong HCl reaction
-28.5	108.5					UD-14			108.5ft: Silty SAND (SM), yellow (10YR7/6), moist, fine to coarse grained sand, carbonite nodules, strong HCl reaction (visual) - 2.5ft recovery

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2302UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 80.0 ft (NAVD88)	NORTHING 13,407,373 US ft (NAD83)	EASTING 2,598,406 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 147.3 ft	DRILL MACHINE CME-75	DRILLER: G. Bray/T. Ellerson	HAMMER (ID) NA
DATE STARTED 2/5/08	COMPLETED 2/12/08	CASING DEPTH: N/A	BITS USED: 6" Rollercone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.2					Continued from previous page				
-38.5	118.5								
						UD-15			Changed sampling method to Shelby tube 118.5ft: no recovery
-40.5	120.5								
						UD-16			120.5ft: FAT CLAY (CH), very pale brown (10YR7/3), moist, carbonate nodules, weak HCl reaction - 1.4ft recovery
-48.5	128.5								
						UD-17			128.5ft: LEAN CLAY with sand (CL), pale yellow (2.5Y7/4), moist, trace carbonate, strong HCl reaction - 1.4ft recovery 130.0ft: POORLY GRADED SAND (SP), very pale brown (10YR7/3), wet, fine grained sand, trace fines, weak HCl reaction
-63.5	143.5								
						UD-18			143.5ft: FAT CLAY (CH), light gray (2.5Y7/2), carbonate nodules, strong HCl reaction, black staining - 0.1ft recovery
-65.5	145.5								
						UD-19			145.5ft: FAT CLAY (CH), light gray (2.5Y7/2), moist, carbonate nodules, strong HCl reaction, black staining - 1.4ft recovery
									-67.3 Boring Terminated at Elevation -67.3 ft 147.3

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08
Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST H. Lyatuu
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2303A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 75.4 ft (NAVD88)	NORTHING 13,402,308 US ft (NAD83)	EASTING 2,600,479 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.0 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/20/08	COMPLETED 1/30/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
75.4					Ground Surface				75.4 — 0.0
75.4	0.0	2	2	2	4	SS-1			Sandy SILT (ML), very dark gray (7.5YR3/1), soft, moist, some sand, trace organics, no HCl reaction
72.4	3.0								72.4 — 3.0
		1	3	3	6	SS-2			FAT CLAY (CH), very dark gray (7.5YR3/1), firm, moist, few sand, trace organics, weak HCl reaction
69.4	6.0								
		3	4	7	11	SS-3			6.0ft: pale brown (10YR6/3), stiff, trace sand, trace carbonate nodules, strong HCl reaction
66.9	8.5								
		5	8	8	16	SS-4			8.5ft: very stiff
64.4	11.0								
		10	10	11	21	SS-5			11.0ft: light yellowish brown (10YR6/4), brown staining
61.9	13.5								
		8	12	15	27	SS-6			13.5ft: light brown (7.5YR6/4), dark brown staining
56.9	18.5								
		5	6	8	14	SS-7			18.5ft: light yellowish brown (2.5Y6/4), mottled light gray (10YR7/2), stiff, trace slickensides
51.9	23.5								
		4	6	10	16	SS-8			23.5ft: very stiff, brown staining
46.9	28.5								
		5	8	11	19	SS-9			28.5ft: pale brown (10YR6/3), few sand
41.9	33.5								
		6	11	15	26	SS-10			33.5ft: little sand
									40.4 — 35.0
									POORLY GRADED SAND (SP), light yellowish brown (2.5Y6/3), very dense, moist, trace fines, fine grained sand, weak HCl reaction
36.9	38.5								
		15	29	28	57	SS-11			
									34.4 — 41.0
									FAT CLAY (CH), light gray (7.5YR7/2), hard, moist, few sand, trace carbonate nodules, strong HCl reaction
31.9	43.5								
		5	13	18	31	SS-12			
26.9	48.5								
		10	16	15	31	SS-13			48.5ft: mottled brownish yellow (10YR6/6), trace sand, dark brown staining
21.9	53.5								
		5	7	11	18	SS-14			53.5ft: light brown (7.5YR6/4), mottled pinkish gray (7.5YR7/2), very stiff

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2303A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 75.4 ft (NAVD88)	NORTHING 13,402,308 US ft (NAD83)	EASTING 2,600,479 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.0 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/20/08	COMPLETED 1/30/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
19.3					Continued from previous page				
16.8	58.6								FAT CLAY (CH), light gray (10YR7/2), hard, moist, few sand, trace carbonate nodules, strong HCl reaction *(continued)*
		5	7	11	18	SS-15			58.6ft: brown (7.5YR5/2)
11.8	63.6								
		6	9	13	22	SS-16			63.6ft: light brownish gray (10YR6/2)
6.8	68.6								
		9	11	17	28	SS-17			68.6ft: light gray (10YR7/2), few sand, no HCl reaction
1.8	73.6								2.9 — 72.5 POORLY GRADED SAND (SP), light gray (10YR7/2), very firm, moist, fine grained sand, trace fines, no HCl reaction
		8	12	15	27	SS-18			
-3.2	78.6								
		10	15	18	33	SS-19			78.6ft: very pale brown (10YR7/3), dense, wet, no fines, trace black grains
-8.2	83.6								
		13	21	23	44	SS-20			
-13.2	88.6								
		9	17	14	31	SS-21			88.6ft: moist
-18.1	93.5								-18.1 — 93.5 POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/2), very dense, moist, few fines, fine to medium grained sand, trace carbonate nodules, trace black and brown grains, strong HCl reaction
		15	29	41	70	SS-22			-20.6 — 96.0 POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, moist, trace fines, fine grained sand, no HCl reaction
-23.1	98.5								
		38	50/0.3		88/.06	SS-23			
-33.1	108.5								
		22	25	35	60	SS-24			108.5ft: no fines

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2303A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 75.4 ft (NAVD88)	NORTHING 13,402,308 US ft (NAD83)	EASTING 2,600,479 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.0 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/20/08	COMPLETED 1/30/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-36.8					Continued from previous page				
									POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, moist, trace fines, fine grained sand, no HCl reaction *(continued)*
-39.6									115.0
									FAT CLAY (CH), light yellowish brown (2.5Y6/4), mottled light gray (2.5Y7/1), hard, moist, trace sand, trace carbonate nodules, strong HCl reaction
-43.1	118.5								
		6	13	19	32	SS-25			
-53.1	128.5								
		6	10	16	26	SS-26			128.5ft: very stiff
-62.1									137.5
									POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y7/2), very dense, moist, few fines, fine grained sand, trace carbonate nodules, strong HCl reaction
-63.1	138.5								
		18	30	33	63	SS-27			
-67.6									143.0
									POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist, trace fines, trace black grains, no HCl reaction
-73.1	148.5								
		40	50/0.5		90/1.0	SS-28			
-79.6									155.0
									FAT CLAY (CH), light brownish gray (10YR6/2), very stiff, moist, trace sand, trace carbonate nodules, brown stains, strong HCl reaction
-83.1	158.5								
		8	10	14	24	SS-29			
-89.6									165.0
									POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, trace fines, fine grained sand, no HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2303A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 75.4 ft **(NAVD88)**	**NORTHING** 13,402,308 **US ft (NAD83)**	**EASTING** 2,600,479 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 300.0 ft	**DRILL MACHINE** CME-75	**DRILLER: T. Warren/N. Skoglund**	**HAMMER (ID)** 140 lb. Auto (MEC 09)
DATE STARTED 1/20/08	**COMPLETED** 1/30/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-92.9					Continued from previous page				
-93.1	168.5	19	25	39	64	SS-30			POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, trace fines, fine grained sand, no HCl reaction *(continued)*
-103.1	178.5	20	22	30	52	SS-31			178.5ft: no fines
-109.6	185.0								FAT CLAY (CH), light gray (10YR7/1), hard, moist, trace sand, trace carbonate nodules, strong HCl reaction
-113.1	188.5	14	31	31	62	SS-32A/B			
-113.8	189.2								POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, trace fines, fine sand, no HCl reaction
-119.6	195.0								FAT CLAY (CH), light gray (10YR7/1), mottled brownish yellow, (10YR6/6), very stiff, moist, trace sand, trace carbonate nodules, black staining, strong HCl reaction
-123.1	198.5	9	11	17	28	SS-33			
-143.2	218.6	7	9	17	26	SS-34			218.6ft: light brownish gray (2.5Y6/2)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2303A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 75.4 ft **(NAVD88)**	**NORTHING** 13,402,308 **US ft (NAD83)**	**EASTING** 2,600,479 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 300.0 ft	**DRILL MACHINE** CME-75	**DRILLER: T. Warren/N. Skoglund**	**HAMMER (ID)** 140 lb. Auto (MEC 09)
DATE STARTED 1/20/08	**COMPLETED** 1/30/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-149.0					Continued from previous page				
									FAT CLAY (CH), light gray (10YR7/1), mottled brownish yellow, (10YR6/6), very stiff, moist, trace sand, trace carbonate nodules, black staining, strong HCl reaction *(continued)*
-163.1	238.5								-162.6 — 238.0
		49	50/0.3		99/0.8	SS-35			POORLY GRADED SAND (SP), very pale brown (10YR7/4), very dense, wet, trace fines, fine to medium grained sand, trace carbonate nodules, strong HCl reaction
-183.2	258.6								-183.2 — 258.6
		22	33	50/0.4	83/0.9	SS-36			POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/1), very dense, moist, few fines, fine sand, brown stains, strong HCl reaction
									-194.6 — 270.0
									Sandy FAT CLAY (CH), light gray (10YR67/1), hard, moist, some sand, trace carbonate nodules, strong HCl reaction
-203.1	278.5								
		19	21	27	48	SS-37			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2303A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 75.4 ft **(NAVD88)**	**NORTHING** 13,402,308 **US ft (NAD83)**	**EASTING** 2,600,479 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 300.0 ft	**DRILL MACHINE** CME-75	**DRILLER: T. Warren/N. Skoglund**	**HAMMER (ID)** 140 lb. Auto (MEC 09)
DATE STARTED 1/20/08	**COMPLETED** 1/30/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-205.2					Continued from previous page				
									Sandy FAT CLAY (CH), light gray (10YR67/1), hard, moist, some sand, trace carbonate nodules, strong HCl reaction *(continued)*
-223.1	298.5								
		25	30	43	73	SS-38			-224.6 300.0
									Boring Terminated at Elevation -224.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 6

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST A. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2304A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.3 ft (NAVD88)	NORTHING 13,396,556 US ft (NAD83)	EASTING 2,608,687 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 296.5 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) 140 lb. Auto (MEC 05)
DATE STARTED 1/17/08	COMPLETED 1/29/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
68.3					Ground Surface				68.3 / 0.0
68.3 / 64.8	0.0 / 3.5	2	2	2	4	SS-1			Sandy SILT (ML), very dark gray (10YR3/1), soft, moist, fine to medium grained sand, no HCl reaction, trace organics
62.3	6.0	3	4	7	11	SS-2			Sandy FAT CLAY (CH), yellowish brown (10YR5/4), stiff, moist, fine to medium grained sand, weak HCl reaction, trace organics
59.8	8.5	3	4	5	9	SS-3			LEAN CLAY with sand (CL), brownish yellow (10YR6/6), stiff, moist, fine to coarse grained sand, strong HCl reaction, trace organics
57.3	11.0	2	3	5	8	SS-4			8.5ft: olive yellow (2.5Y6/6), firm
54.8	13.5	4	6	9	15	SS-5			11.0ft: brownish yellow (10YR6/6), stiff, fine to medium grained sand, carbonate nodules
49.8	18.5	5	6	4	10	SS-6			Silty, clayey, SAND (SC-SM), mottled olive yellow (2.5YR6/6), and pale yellow (5Y8/2), loose, moist, fine to medium sand, strong HCl reaction
44.8	23.5	7	10	14	24	SS-7			Sandy LEAN CLAY (CL), mottled olive yellow (2.5YR6/6), and pale yellow (5Y8/2), very stiff, moist, fine to medium grained sand, strong HCl reaction
39.8	28.5	11	14	15	29	SS-8			Silty SAND (SM), light yellowish brown (10YR6/4), very firm, moist, fine to medium grained sand, weak HCl reaction
34.8	33.5	13	20	20	40	SS-9			28.5ft: dense
29.8	38.5	19	28	26	54	SS-10			33.5ft: very dense (visual)
24.8	43.5	10	11	12	23	SS-11			POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5YR7/3), very firm, moist, fine to medium grained sand, weak HCl reaction (visual)
19.8	48.5	9	16	20	36	SS-12			43.5ft: dense (visual)
14.8	53.5	14	27	24	51	SS-13			Silty SAND (SM), pale yellow (2.5YR7/3), very dense, moist, fine to medium grained sand, weak HCl reaction
		7	9	11	20	SS-14			15.8 / 52.5

EXELON COL.BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2304A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.3 ft (NAVD88)	NORTHING 13,396,556 US ft (NAD83)	EASTING 2,608,687 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 296.5 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) 140 lb. Auto (MEC 05)
DATE STARTED 1/17/08	COMPLETED 1/29/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
12.2					Continued from previous page				
9.8	58.5								FAT CLAY (CH), pale yellow (2.5Y7/3), very stiff, moist, fine to medium grained sand, weak HCl reaction
		8	11	21	32	SS-15A/B			8.8 — 58.5ft: split sample: SS-15A from 58.5-59.5ft and SS-17B from 59.5-60.0ft *(continued)* — 59.5
5.3	63.0								LEAN CLAY with sand (CL), pale yellow (2.5Y7/4), hard, moist, fine to medium grained sand, weak HCl reaction
		8	15	16	31	SS-16			4.8 — Field reports do not indicate that SS-16 was split into separate jars — 63.5
-0.2	68.5								Sandy LEAN CLAY (CL), light gray (2.5Y7/2), hard, moist, fine to coarse grained sand, carbonate nodules, no HCl reaction — -0.2 — 68.5
		6	9	12	21	SS-17			FAT CLAY with sand (CH), light gray (2.5Y7/2), very stiff, moist, fine to medium grained sand, black and brown staining, no HCl reaction
-5.2	73.5								-5.2 — 73.5
		6	9	11	20	SS-18			FAT CLAY (CH), mottled pale yellow (5Y8/2), and olive yellow (2.5Y6/6), very stiff, moist, fine to medium grained sand, strong HCl reaction
-10.2	78.5								
		7	9	12	21	SS-19			78.5ft: black staining, weak HCl reaction
-15.2	83.5								
		7	10	15	25	SS-20			83.5ft: mottled light gray (2.5Y7/2), and brownish yellow (10YR6/6), carbonate nodules
-20.2	88.5								-20.2 — 88.5
		11	22	22	44	SS-21			POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y8/3), dense, moist, fine to medium grained sand, no HCl reaction (visual)
-25.2	93.5								-25.2 — 93.5
		50	19	50/0.2	69/0.7	SS-22			Sandy LEAN CLAY (CL), light gray (2.5Y7/2), hard, moist, fine to coarse grained sand, fine gravel, strong HCl reaction
-30.2	98.5								-30.2 — 98.5
		8	19	19	38	SS-23			FAT CLAY with sand (CH), mottled brownish yellow (10YR6/6), and light gray (5Y7/2), hard, moist, fine to medium grained sand, black staining, carbonate nodules, no HCl reaction
-40.2	108.5								-40.2 — 108.5
		9	12	14	26	SS-24			FAT CLAY (CH), mottled brownish yellow (10YR6/6), and pale yellow (5Y7/3), very stiff, moist, fine to medium grained sand, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST A. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2304A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.3 ft (NAVD88)	NORTHING 13,396,556 US ft (NAD83)	EASTING 2,608,687 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 296.5 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) 140 lb. Auto (MEC 05)
DATE STARTED 1/17/08	COMPLETED 1/29/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-43.9					Continued from previous page				
									FAT CLAY (CH), mottled brownish yellow (10YR6/6), and pale yellow (5Y7/3), very stiff, moist, fine to medium grained sand, weak HCl reaction *(continued)*
-50.2	118.5								
		9	12	15	27	SS-25			118.5ft: carbonate nodules, no HCl reaction
-60.2	128.5								-60.2 — 128.5
		16	23	20	43	SS-26			Clayey SAND (SC), pale yellow (5Y8/2), dense, moist, fine to medium grained sand, no HCl reaction (visual)
-70.2	138.5								-70.2 — 138.5
		10	22	26	48	SS-27			Sandy LEAN CLAY (CL), light gray (5Y7/2), hard, moist, fine to medium grained sand, brown staining, carbonate nodules
									-71.7 — 140.0
									-72.7 — 141.0
									POORLY GRADED SAND (SP), very pale brown (10YR7/3), moist, trace fines, strong HCl reaction
									POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y8/4), moist, few fines, strong HCl reaction
-80.2	148.5								-79.7 — 148.0
		14	18	20	38	SS-28			FAT CLAY (CH), mottled pale yellow (5Y8/2), and yellow (2.5Y7/6), hard, moist, fine to medium grained sand, black staining, carbonate nodules, strong HCl reaction
-90.2	158.5								-90.2 — 158.5
		32	50	42	92	SS-29			Clayey SAND (SC), pale yellow (2.5Y8/2), wet, very dense, moist, fine to medium grained sand, strong HCl reaction (visual)
									-97.7 — 166.0
									FAT CLAY with sand (CH), light gray (5Y7/2), hard, moist, fine to medium grained sand, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2304A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.3 ft (NAVD88)	NORTHING 13,396,556 US ft (NAD83)	EASTING 2,608,687 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 296.5 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) 140 lb. Auto (MEC 05)
DATE STARTED 1/17/08	COMPLETED 1/29/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-100.0					Continued from previous page				
-100.2	168.5	9	27	25	52	SS-30			FAT CLAY with sand (CH), light gray (5Y7/2), hard, moist, fine to medium grained sand, weak HCl reaction *(continued)*
-110.2	178.5	6	9	13	22	SS-31			FAT CLAY (CH), mottled light gray (5Y7/2), and yellow (2.5Y7/6), very stiff, moist, fine to medium grained sand, weak HCl reaction
-114.7	183.0								Silty SAND (SM), pale yellow (2.5Y8/2), very dense, moist, fine to medium grained sand, no HCl reaction
-120.2	188.5	16	28	30	58	SS-32			
-130.2	198.5	4	17	17	34	SS-33			Clayey SAND (SC), pale yellow (2.5Y8/2), dense, moist, fine to medium grained sand, weak HCl reaction
-150.2	218.5	30	50/0.3		80/0.8	SS-34			Silty SAND (SM), white (2.5Y8/1), very dense, most, fine to medium grained sand, weak HCl reaction (visual)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2304A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 68.3 ft **(NAVD88)**	**NORTHING** 13,396,556 **US ft (NAD83)**	**EASTING** 2,608,687 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 296.5 ft	**DRILL MACHINE** CME-550-X	**DRILLER: R. Banks/R. Landaros**	**HAMMER (ID)** 140 lb. Auto (MEC 05)
DATE STARTED 1/17/08	**COMPLETED** 1/29/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-156.1					Continued from previous page				
									Silty SAND (SM), white (2.5Y8/1), very dense, most, fine to medium grained sand, weak HCl reaction (visual) *(continued)*
-170.2	238.5								-170.2 — 238.5
		24	37	50/0.3	87/0.3	SS-35			Clayey SAND (SC), pale yellow (2.5Y8/2), very dense, moist, fine to medium grained sand, strong HCl reaction
-190.2	258.5								
		15	26	41	67	SS-36			258.5ft: light gray (2.5Y7/2)
-210.2	278.5								-210.2 — 278.5
		WOH	5	7	12	SS-37			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2304A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 68.3 ft **(NAVD88)**	**NORTHING** 13,396,556 **US ft (NAD83)**	**EASTING** 2,608,687 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 296.5 ft	**DRILL MACHINE** CME-550-X	**DRILLER: R. Banks/R. Landaros**	**HAMMER (ID)** 140 lb. Auto (MEC 05)
DATE STARTED 1/17/08	**COMPLETED** 1/29/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-212.2					Continued from previous page				
									FAT CLAY (CH), light gray (5Y7/2), stiff, moist, fine to medium grained sand, brown staining, no HCl reaction *(continued)*
-226.7	295.0								-226.7 295.0
		6	10	15	●25	SS-38			-228.2 LEAN CLAY with sand (CL), light gray (5Y7/2), very stiff, moist, fine to medium grained sand, strong HCl reaction 296.5
									Boring Terminated at Elevation -228.2 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPK Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2304UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 68.5 ft (NAVD88)	NORTHING 13,396,571 US ft (NAD83)	EASTING 2,608,693 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 143.5 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) NA
DATE STARTED 1/30/08	COMPLETED 2/2/08	CASING DEPTH: N/A	BITS USED: 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
68.5					Ground Surface				68.5 0.0
									Begin sampling by Shelby tube
62.5	6.0					UD-1			6.0ft: LEAN CLAY with sand (CL), light yellowish brown (2.5Y6/4), moist, strong HCl reaction - 1.8ft recovery 8.0ft: LEAN CLAY with sand (CL), yellow (2.5Y7/6), moist, strong HCl reaction
57.5	11.0					UD-2			11.0ft: Sandy SILT (ML), light yellowish brown (2.5Y6/4), moist, fine to coarse grained sand, strong HCl reaction (visual) - 1.25ft recovery 13.3ft: Silty, clayey SAND (SC-SM), pale yellow (2.5Y7/4), moist, some fines, fine grained sand, strong HCl reaction
40.0	28.5					UD-3			28.5ft: Silty SAND (SM), mottled white (5Y8/1), and yellow (10YR7/6), moist, strong HCl reaction - 0.2ft recovery 30.5ft: Silty SAND (SM), pale yellow (2.5Y7/3), moist, some fines, fine grained sand, strong HCl reaction
36.0	32.5					UD-4			32.5ft: Silty SAND (SM), pale yellow (2.5Y7/3), moist, little fines, fine grained sand, strong HCl reaction - 0.85ft recovery
15.5	53.0					UD-5			53.0ft: FAT CLAY (CH), mottled gray (5Y6/1), and yellow brown (10YR5/6), moist, no sand, strong HCl reaction - 1.85ft recovery 55.0ft: mottled pale yellow (2.5Y7/3), and white

EXELON COL.BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2304UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 68.5 ft (NAVD88)	NORTHING 13,396,571 US ft (NAD83)	EASTING 2,608,693 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 143.5 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) NA
DATE STARTED 1/30/08	COMPLETED 2/2/08	CASING DEPTH: N/A	BITS USED: 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
12.4					Continued from previous page				
									(2.5Y8/1), weak HCl reaction
5.5	63.0					UD-6			63.0ft: Sandy LEAN CLAY (CL), light yellowish brown (2.5Y6/4), moist, fine grained sand, weak HCl reaction - 1.5ft recovery 64.5ft: Sandy LEAN CLAY (CL), mottled pale yellow (2.5Y7/3), and light olive yellow (2.5Y5/6), moist, few carbonate nodules, strong HCl reaction
-5.0	73.5					UD-7			73.5ft: ELASTIC SILT (MH), mottled brownish yellow (10YR6/8), and pale yellow (5Y8/3), moist, fine to medium grained sand, weak HCl reaction - 2.0ft recovery
-15.0	83.5					UD-8			83.5ft: FAT CLAY (CH), mottled brownish yellow (10YR6/8), and pale yellow (5Y8/3), moist, fine gravel, weak HCl reaction - 1.55ft recovery
-30.0	98.5					UD-9			Changed sample method to Pitcher barrel 98.5ft: FAT CLAY with sand (CH), mottled pale yellow (5Y8/3), and yellow (10YR7/6), moist, fine to medium grained sand, strong HCl reaction - 2.4ft recovery
-40.0	108.5								108.5ft: no recovery
-42.5	111.0					UD-10 UD-11			Changed sample method to Shelby tube 111.0ft: FAT CLAY (CH), mottled pale yellow (5Y8/3), and yellow (2.5Y8/2), moist, no sand, strong HCl reaction - 1.9ft recovery 113.0ft: brown staining

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2304UD	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: UD**	**0 HR.** ND
GROUND SURFACE ELEV. 68.5 ft **(NAVD88)**	**NORTHING** 13,396,571 **US ft (NAD83)**	**EASTING** 2,608,693 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 143.5 ft	**DRILL MACHINE** CME-550-X	**DRILLER: R. Banks/R. Landaros**	**HAMMER (ID)** NA
DATE STARTED 1/30/08	**COMPLETED** 2/2/08	**CASING DEPTH: N/A**	**BITS USED: 6" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-43.7					Continued from previous page				
-50.0	118.5					UD-12			118.5ft: FAT CLAY (CH), mottled pale yellow (2.5Y8/2), and yellow (10YR7/6), moist, no sand, strong HCl reaction - 0.3ft recovery
-52.5	121.0					UD-13			121.0ft: FAT CLAY (CH), mottled pale yellow (2.5Y8/2), and yellow (10YR7/6), moist, no sand, strong HCl reaction - 2.0ft recovery
									Changed sample method to Pitcher barrel
-70.0	138.5					UD-14			138.5ft: Sandy LEAN CLAY (CL), mottled pale yellow (2.5Y8/2), and yellow (10YR7/6), moist, strong HCl reaction - 0.7ft recovery
-72.5	141.0					UD-15			140.0ft: POORLY GRADED SAND (SP), very pale brown (10YR7/3), moist, trace fines, strong HCl reaction (visual) 141.0ft: POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y8/4), moist, few fines, fine to medium grained sand, strong HCl reaction - 1.5ft recovery
									-75.0 143.5 Boring Terminated at Elevation -75.0 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 6

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST H. Lyatuu
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2305A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.5 ft (NAVD88)	NORTHING 13,406,653 US ft (NAD83)	EASTING 2,621,646 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.1 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/15/08	COMPLETED 1/19/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
65.5					Ground Surface				65.5 — 0.0
65.5	0.0	2	3	4	7	SS-1			Sandy SILT (ML), very dark gray (10YR3/1), firm, moist, few sand, weak HCl reaction
62.5	3.0	2	3	5	8	SS-2			62.5 — 3.0 FAT CLAY (CH), gray (10YR5/1), firm, moist, little sand, carbonate nodules, strong HCl reaction
59.5	6.0	3	3	4	7	SS-3			6.0ft: gray (5YR5/1), few sand
57.0	8.5	5	8	7	15	SS-4			8.5ft: very pale brown (10YR7/3), mottled light gray (10YR7/1), stiff to very stiff
54.5	11.0	5	9	10	19	SS-5			11.0ft: very stiff
52.0	13.5	4	5	10	15	SS-6			13.5ft: light yellowish brown (2.5Y6/4), stiff, trace sand
47.0	18.5	4	6	7	13	SS-7			18.5ft: trace dark brown staining
42.0	23.5	5	7	11	18	SS-8			23.5ft: light brown (7.5YR6/4), mottled light reddish brown (2.5YR6/3), very stiff
37.0	28.5	7	12	16	28	SS-9			28.5ft: little sand
32.0	33.5	8	12	15	27	SS-10			33.0 — 32.5 POORLY GRADED SAND (SP), very pale brown (10YR7/3), very firm, moist, fine grained, trace fines, no HCl reaction
26.8	38.7	9	17	12	29	SS-11			38.7ft: light gray (2.5Y7/2), to light yellowish brown (10YR6/4), no fines
21.8	43.7	10	12	21	33	SS-12			43.7ft: very pale brown (10YR7/3), dense, trace black grains, trace organics, weak HCl reaction
16.7	48.8	4	6	9	15	SS-13			16.7 — 48.8 POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/3), firm, moist, fine grained, few to little fines, trace black and brown grains, strong HCl reaction
14.5	51.0								Clayey SAND (SC), light gray (10YR7/2), firm, wet, fine grained, some fines, trace black grains, weak HCl reaction
11.7	53.8	5	6	5	11	SS-14			9.7 — 55.8

EXELON COL.BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2305A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.5 ft (NAVD88)	NORTHING 13,406,653 US ft (NAD83)	EASTING 2,621,646 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.1 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/15/08	COMPLETED 1/19/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
9.3					Continued from previous page				
6.7	58.8								POORLY GRADED SAND (SP), very pale brown (10YR7/3), very firm, moist, fine grained, few fines, weak HCl reaction *(continued)*
		5	7	14	21	SS-15 A/B			5.7 — 59.8
									4.2 — FAT CLAY with sand (CH), very pale brown (10YR7/3), very stiff, moist, some sand, weak HCl reaction — 61.3
1.7	63.8								POORLY GRADED SAND (SP), light gray (2.5Y7/2), dense, wet, fine grained, trace black and brown grains, weak HCl reaction
		9	17	17	34	SS-16			
-3.3	68.8								
		12	19	25	44	SS-17			68.8ft: reddish yellow (7.5YR7/6)
-8.3	73.8								
		16	23	25	48	SS-18			73.8ft: very pale brown (10YR7/3), trace carbonate nodules
-13.4	78.8								-12.6 — 78.0
		9	8	12	20	SS-19			FAT CLAY (CH), light gray 2.5Y7/2), very stiff, moist, few sand, strong HCl reaction
-18.4	83.8								
		19	11	11	22	SS-20			83.8ft: light brownish gray (10YR6/2), few sand, trace brown stains, trace carbonate nodules
-23.4	88.8								
		15	20	21	41	SS-21			88.8ft: light gray (10YR7/2), mottled light yellowish brown (10YR6/4), hard, trace olive brown stains
-28.4	93.8								
		8	10	14	24	SS-22			93.8ft: very stiff, trace sand
-33.4	98.8								
		8	11	16	27	SS-23			
-43.4	108.8								
		15	26	33	59	SS-24 A/B			-44.3 — 108.8ft: pinkish gray (7.5YR7/2) — 109.7

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST H. Lyatuu
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2305A / DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.5 ft (NAVD88) / NORTHING 13,406,653 US ft (NAD83)	EASTING 2,621,646 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.1 ft / DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/15/08 / COMPLETED 1/19/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-46.8					Continued from previous page				
									POORLY GRADED SAND (SP), brownish yellow (10YR6/6), to light gray (2.5Y7/2), very dense, wet, fine grained, trace fines, trace black and brown grains, weak HCl reaction *(continued)*
-53.4	118.8	19	29	32	61	SS-25			118.8ft: light gray (5Y7/2)
									-59.6 / 125.0 FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), very stiff, moist, trace sand, trace carbonate nodules, trace soft black organics, strong HCl reaction
-63.4	128.8	10	12	13	25	SS-26			
-73.4	138.8	9	15	20	35	SS-27			138.8ft: hard
									-79.6 / 145.0 Clayey SAND (SC), light gray (10YR7/2), very dense, moist, fine grained, some fines, weak HCl reaction
-83.4	148.8	10	17	50/0.4	67/0.9	SS-28			
									-86.6 / 152.0 FAT CLAY (CH), light gray (10YR7/2), mottled yellowish brown (2.5Y6/4), very stiff, moist, few sand, trace carbonate nodules, strong HCl reaction on nodules
-93.4	158.8	9	10	15	25	SS-29			
									-99.6 / 165.0 Clayey SAND (SC), light gray (10YR7/2), dense, moist, fine grained, some fines, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST H. Lyatuu
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2305A / DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.5 ft (NAVD88) / NORTHING 13,406,653 US ft (NAD83)	EASTING 2,621,646 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 300.1 ft / DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/15/08 / COMPLETED 1/19/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-102.9					Continued from previous page				
-103.4	168.8	10	15	25	40	SS-30			Clayey SAND (SC), light gray (10YR7/2), dense, moist, fine grained, some fines, weak HCl reaction *(continued)*
-107.1	172.5								POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, wet, fine grained, trace fines, trace black and brown grains, weak HCl reaction
-113.1	178.5	33	50/0.3		88/0.8	SS-31			
-119.6	185.0								FAT CLAY with sand (CH), light gray (2.5Y7/1), mottled brownish yellow (10YR6/6), hard, moist, little sand, trace carbonate grains, strong HCl reaction
-123.1	188.5	20	31	49	80	SS-32 A/B			
-123.9	189.3								POORLY GRADED SAND (SP), light gray (2.5Y7/1), very dense, moist, fine grained, trace fines, no HCl reaction
-129.6	195.0								FAT CLAY (CH), light gray (2.5Y7/2), mottled brownish yellow (10YR6/6), hard, moist, trace sand, trace carbonate nodules, trace dark brown grains, strong HCl reaction
-133.1	198.5	10	20	27	47	SS-33			
-153.1	218.5	7	11	15	26	SS-34			218.5ft: very stiff

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2305A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 65.5 ft **(NAVD88)**	**NORTHING** 13,406,653 **US ft (NAD83)**	**EASTING** 2,621,646 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 300.1 ft	**DRILL MACHINE** CME-75	**DRILLER: T. Warren/N. Skoglund**	**HAMMER (ID)** 140 lb. Auto (MEC 09)
DATE STARTED 1/15/08	**COMPLETED** 1/19/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-159.0					Continued from previous page				
									FAT CLAY (CH), light gray (2.5Y7/2), mottled brownish yellow (10YR6/6), hard, moist, trace sand, trace carbonate nodules, trace dark brown grains, strong HCl reaction *(continued)*
-173.2	238.6								-173.2 — 238.6
		50/0.4			50/0.4	SS-35			POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, wet, fine to medium grained, trace fines, trace olive and brown grains, weak HCl reaction
									-184.6 — 250.0
									FAT CLAY (CH), light gray (2.5Y7/2), very stiff, moist, trace sand, trace carbonate nodules, trace black nodules, strong HCl reaction
-193.2	258.6								
		9	12	17	29	SS-36			
-213.2	278.6								
		14	16	18	34	SS-37			278.6ft: mottled light brown (7.5YR6/4), hard

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2305A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 65.5 ft **(NAVD88)**	**NORTHING** 13,406,653 **US ft (NAD83)**	**EASTING** 2,621,646 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 300.1 ft	**DRILL MACHINE** CME-75	**DRILLER: T. Warren/N. Skoglund**	**HAMMER (ID)** 140 lb. Auto (MEC 09)
DATE STARTED 1/15/08	**COMPLETED** 1/19/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-215.1					Continued from previous page				
									FAT CLAY (CH), light gray (2.5Y7/2), very stiff, moist, trace sand, trace carbonate nodules, trace black nodules, strong HCl reaction *(continued)*
-233.2	298.6								
		18	17	22	●39	SS-38			298.6ft: pinkish gray (7.5YR7/2), mottled light brown (7.5YR6/4), weak HCl reaction
									-234.6 300.0 Boring Terminated at Elevation -234.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**	
BORING NO. B-2306A	**DRILL METHOD:** Mud Rotary	**SAMPLE METHODS:** SPT	**0 HR.** ND
GROUND SURFACE ELEV. 64.3 ft (NAVD88)	**NORTHING** 13,411,450 US ft (NAD83)	**EASTING** 2,615,250 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 100.0 ft	**DRILL MACHINE** CME-45	**DRILLER:** J. Warren/J. Alexander	**HAMMER (ID)** 140 lb. Auto (MEC 12)
DATE STARTED 12/19/07	**COMPLETED** 12/19/07	**CASING DEPTH:** N/A	**BITS USED:** 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
64.3					Ground Surface				
64.3	0.0	2	2	3	5	SS-1			POORLY GRADED SAND with clay (SP-SC), very dark grayish brown (2.5Y3/2), loose, moist, fine grained, few fines, no HCl reaction
60.8	3.5	4	4	7	11	SS-2			Clayey SAND (SC), light gray (10YR7/1), mottled red (2.5YR5/8), firm, moist, fine grained, some fines, no HCl reaction
58.3	6.0	4	4	6	10	SS-3			6.0ft: brown (10YR5/3), lenses of clean sand
55.8	8.5	8	15	15	30	SS-4			POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, moist, fine grained, trace fines, no HCl reaction
53.3	11.0	8	5	3	8	SS-5A/B			
50.8	13.5	11	10	6	16	SS-6			Sandy FAT CLAY (CH), yellow (10YR7/6), mottled pale yellow (5Y8/2), firm, moist, some sand, no HCl reaction (51.3 – 13.0); POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), firm, moist, moist, fine grained, few fines, no HCl reaction, sandy clay lenses (48.3 – 16.0); FAT CLAY (CH), light greenish gray (5GY8/1), mottled very pale brown (10YR7/4), stiff, moist, few sand, black staining, weak HCl reaction
45.8	18.5	6	6	8	14	SS-7			
40.8	23.5	4	7	6	13	SS-8			
35.8	28.5	10	20	20	40	SS-9			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/4), dense, moist, fine grained, few fines, weak to strong HCl reaction, carbonate nodules
30.8	33.5	10	18	18	36	SS-10			33.5ft: mottled light gray (5Y7/1)
25.8	38.5	12	15	19	34	SS-11			POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, moist, fine grained, no fines, weak HCl reaction
20.8	43.5	8	13	8	21	SS-12			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very firm, wet, fine grained, few fines, strong HCl reaction, lenses of sandy clay (18.3 – 46.0); FAT CLAY (CH), light gray (5Y7/2), very stiff, moist, few sand, weak HCl reaction, horizontal staining of brownish yellow (10YR6/8) and black staining
15.8	48.5	10	8	11	19	SS-13			
10.8	53.5	5	7	9	16	SS-14			53.5ft: mottled brownish yellow (10YR6/8), little sand,
									8.8 – 55.5

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2306A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 64.3 ft **(NAVD88)**	**NORTHING** 13,411,450 **US ft (NAD83)**	**EASTING** 2,615,250 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 100.0 ft	**DRILL MACHINE** CME-45	**DRILLER: J. Warren/J. Alexander**	**HAMMER (ID)** 140 lb. Auto (MEC 12)
DATE STARTED 12/19/07	**COMPLETED** 12/19/07	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Roller Cone**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
8.2					Continued from previous page				
5.8	58.5								POORLY GRADED SAND (SP), very pale brown (10YR7/3), very firm, wet, fine grained, no fines, weak HCl reaction *(continued)*
		10	14	15	29	SS-15			
0.8	63.5								0.8 — 63.5
		15	23	28	51	SS-16			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very dense, wet, fine grained, few fines, seams of clayey sand, weak HCl reaction
-4.2	68.5								-4.2 — 68.5
		14	20	22	42	SS-17			POORLY GRADED SAND (SP), very pale brown (10YR7/3), dense, wet, fine grained, trace fines, weak HCl reaction
-9.2	73.5								-9.2 — 73.5
		13	18	19	37	SS-18			CLAYEY SAND (SC), very pale brown (10Y7/3), mottled light greenish gray (10Y8/1), dense, wet, fine grained, little fines, weak to strong HCl reaction, clay seams, trace gravel
-14.2	78.5								-14.2 — 78.5
		18	27	23	50	SS-19			POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), dense, wet, fine grained, no fines, weak HCl reaction 81.5ft: gravel
									-17.7 — 82.0
-19.2	83.5								Clayey SAND (SC), light gray (2.5Y7/2), very firm, moist, fine grained, some fines, strong HCl reaction
		7	7	14	21	SS-20			
-24.2	88.5								-24.2 — 88.5
		13	12	12	24	SS-21			POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y7/3), very firm, moist, few fines, no HCl reaction, carbonate nodules
-29.2	93.5								-29.2 — 93.5
		14	14	19	33	SS-22			POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), dense, wet, fine grained, trace fines, no HCl reaction
-34.2	98.5								
		5	10	12	22	SS-23			98.5ft: light gray (5Y7/2), very firm
									-35.7 — 100.0
									Boring Terminated at Elevation -35.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08
Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST H. Lyatuu
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2307A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.8 ft (NAVD88)	NORTHING 13,420,888 US ft (NAD83)	EASTING 2,603,158 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 299.4 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/7/08	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
76.8					Ground Surface				76.8 / 0.0
76.8	0.0	1	2	2	4	SS-1			FAT CLAY (CH), very dark gray (10YR3/1), soft, moist, little sand, trace organics, no HCl reaction
73.3	3.5	3	5	11	16	SS-2			3.5ft: dark gray (10YR4/1), to pinkish gray (7.5YR6/2), very stiff, few sand, trace carbonate nodules, strong HCl reaction
70.8	6.0	4	7	6	13	SS-3			6.0ft: stiff
68.3	8.5	4	3	7	10	SS-4			8.5ft: light gray (10YR7/2), mottled brownish yellow (10YR6/6)
65.8	11.0	7	16	18	34	SS-5			11.0ft: hard
63.3	13.5	9	20	27	47	SS-6			13.5ft: very pale brown (10YR7/3), hard, little sand
58.3	18.5	14	23	29	52	SS-7			18.5ft: light gray (10YR7/2), mottled brownish yellow (10YR6/6), some sand
									55.8 / 21.0
53.3	23.5	4	13	23	36	SS-8			POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/2), dense, moist, fine grained, some fines, trace carbonate nodules, weak HCl reaction
									51.8 / 25.0
48.3	28.5	9	14	16	30	SS-9			POORLY GRADED SAND (SP), light gray (5Y7/2), to pale brown (10YR6/3), very firm, moist, fine grained, trace fines, no HCl reaction
43.3	33.5	11	14	20	34	SS-10			33.8ft: light gray (10YR7/2), dense, no fines
38.0	38.8	28	50/0.3		78/0.3	SS-11			38.8ft: light gray 2.5Y7/1), very dense
33.0	43.8	34	29	44	73	SS-12			
28.0	48.8	49	50/0.5		99/1.0	SS-13			48.5ft: very pale brown (10YR7/3), trace sand, strong HCl reaction
23.0	53.8	13	14	18	32	SS-14			53.8ft: light gray (2.5Y7/1), dense, olive yellow stains, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2307A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.8 ft (NAVD88)	NORTHING 13,420,888 US ft (NAD83)	EASTING 2,603,158 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 299.4 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/7/08	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
20.6					Continued from previous page				
18.0	58.8								POORLY GRADED SAND (SP), light gray (5Y7/2), to pale brown (10YR6/3), very firm, moist, fine grained, trace fines, no HCl reaction *(continued)*
		20	23	26	49	SS-15			58.8ft: pinkish gray (7.5YR7/2), dense, no fines, no HCl reaction
13.0	63.8								13.0 — 63.8
		15	11	13	24	SS-16			FAT CLAY (CH), pinkish gray (5Y7/2), mottled light brown (7.5YR6/4), very stiff, moist, trace sand, dark gray stains, no HCl reaction
8.0	68.8								
		10	11	13	24	SS-17			68.8ft: trace carbonate nodules, strong HCl reaction
3.0	73.8								
		7	9	12	21	SS-18			73.8ft: light brownish gray (10YR6/2)
-2.1	78.8								
		14	17	18	35	SS-19			78.8ft: light gray (10YR7/2), hard, some sand
-7.1	83.8								
		12	12	14	26	SS-20			83.8ft: very pale brown (10YR7/3), very stiff
-9.3									86.0
-12.1	88.8								POORLY GRADED SAND (SP), pinkish gray (7.5YR7/2), dense, wet, fine grained, no fines, no HCl reaction
		20	23	25	48	SS-21			
-15.3									92.0
-17.1	93.8								FAT CLAY with sand (CH), pinkish gray (5YR7/2), mottled yellowish brown (10YR5/6), hard, moist, little sand, trace carbonate nodules, strong HCl reaction
		7	12	23	35	SS-22			
-21.3									98.0
-22.1	98.8								POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, fine grained, no fines, weak HCl reaction
		20	25	38	63	SS-23			
-31.8	108.5								
		16	20	24	44	SS-24			108.5ft: very pale brown (10YR7/3), dense, fine to medium grained, strong HCl reaction, trace carbonate nodules

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2307A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 76.8 ft **(NAVD88)**	**NORTHING** 13,420,888 **US ft (NAD83)**	**EASTING** 2,603,158 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 299.4 ft	**DRILL MACHINE** CME-75	**DRILLER: T. Warren/N. Skoglund**	**HAMMER (ID)** 140 lb. Auto (MEC 09)
DATE STARTED 1/7/08	**COMPLETED** 1/10/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-35.5					Continued from previous page				
									POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, fine grained, no fines, weak HCl reaction *(continued)*
-38.3									115.0
									FAT CLAY (CH), very pale brown (10YR7/3), very stiff, moist, few sand, trace carbonate nodules, dark brown stains
-41.8	118.5								
		6	8	18	26	SS-25			
-48.3									125.0
									POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, fine grained, trace fines, no HCl reaction
-51.8	128.5								
		17	32	35	67	SS-26			
-61.8	138.5								
		22	38	42	80	SS-27			138.5ft: pale brown (10YR6/3), wet, weak HCl reaction
-71.8	148.5								
		31	49	45	94	SS-28			148.5ft: very pale brown (10YR7/3 and 7/4), very dense, no fines, strong HCl reaction
-81.8	158.5								
		41	50/0.2		91/0.7	SS-29			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2307A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.8 ft (NAVD88)	NORTHING 13,420,888 US ft (NAD83)	EASTING 2,603,158 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 299.4 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/7/08	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-91.6					Continued from previous page				
-91.8	168.5	17	28	49	77	SS-30			POORLY GRADED SAND (SP), light gray (10YR7/1), very dense, moist, fine grained, trace fines, no HCl reaction *(continued)* 168.5ft: pale yellow (2.5Y7/3), trace fines, weak HCl reaction
-101.8	178.5	50/0.3			50/0.3	SS-31			178.5ft: no fines, fine to medium grained, trace carbonate nodules
-111.8	188.5	49	50/0.4		99/0.9	SS-32			-111.8 — 188.5: POORLY GRADED SAND with silt (SP-SM), light gray (10YR7/2), very dense, moist, fine grained, few fines, strong HCl reaction
-115.8	192.5								POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, moist, fine grained, no fines, strong HCl reaction
-121.8	198.5	50/0.4			50/0.4	SS-33			
-141.8	218.5	25	50/0.5		75/1.0	SS-34			218.5ft: few fines

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST H. Lyatuu
SITE DESCRIPTION: Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2307A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.8 ft (NAVD88)	NORTHING 13,420,888 US ft (NAD83)	EASTING 2,603,158 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 299.4 ft	DRILL MACHINE CME-75	DRILLER: T. Warren/N. Skoglund	HAMMER (ID) 140 lb. Auto (MEC 09)
DATE STARTED 1/7/08	COMPLETED 1/10/08	CASING DEPTH: N/A	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-147.7					Continued from previous page				
									POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, moist, fine grained, no fines, strong HCl reaction *(continued)*
-161.8	238.5								
		25	50/0.4		75/0.9	SS-35			238.5ft: trace fines
-173.3									250.0ft: FAT CLAY with sand (CH), light brownish gray (10YR6/2), hard, moist, little sand, trace carbonate nodules, strong HCl reaction
-181.8	258.5								
		16	25	24	49	SS-36			
-201.8	278.5								
		9	14	21	35	SS-37			278.5ft: brown (10YR5/3), mottled very pale brown (10YR7/3), trace sand

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** H. Lyatuu	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2307A	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 76.8 ft **(NAVD88)**	**NORTHING** 13,420,888 **US ft (NAD83)**	**EASTING** 2,603,158 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 299.4 ft	**DRILL MACHINE** CME-75	**DRILLER: T. Warren/N. Skoglund**	**HAMMER (ID)** 140 lb. Auto (MEC 09)
DATE STARTED 1/7/08	**COMPLETED** 1/10/08	**CASING DEPTH: N/A**	**BITS USED: 3 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-203.8					Continued from previous page				
									250.0ft: FAT CLAY with sand (CH), light brownish gray (10YR6/2), hard, moist, little sand, trace carbonate nodules, strong HCl reaction *(continued)*
									-213.3 — 290.0
									POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, wet, trace fines, fine grained, no HCl reaction
-221.8	298.5								
		47	50/0.4		97/0.9	SS-38			-222.7 — 299.4
									Boring Terminated at Elevation -222.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2308	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.4 ft (NAVD88)	NORTHING 13,404,198 US ft (NAD83)	EASTING 2,599,334 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 12/19/07	COMPLETED 12/20/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
76.4					Ground Surface				76.4 / 0.0
76.4	0.0	3	2	4	6	SS-1			FAT CLAY (CH), dark gray (10YR4/1), firm, moist, few sand, no HCl reaction, roots, thinly laminated
72.9	3.5	7	8	9	17	SS-2			3.5ft: very pale brown (10YR7/3), very stiff, some sand, weak HCl reaction, organics
70.4	6.0	5	4	6	10	SS-3			6.0ft: pale brown (10YR6/3), stiff, no HCl reaction, carbonate nodules
67.9	8.5	2	3	3	6	SS-4			8.5ft: light yellowish brown (10YR6/4), firm
65.4	11.0	3	3	3	6	SS-5			11.0ft: very pale brown (10YR7/3)
62.9	13.5	5	7	11	18	SS-6			62.9 / 13.5 — Clayey SAND (SC), very pale brown (10YR7/3), firm, moist, fine grained, little fines, strong HCl reaction, carbonate nodules
57.9	18.5	7	10	11	21	SS-7			57.9 / 18.5 — POORLY GRADED SAND (SP), very pale brown (10YR8/2), very firm, wet, medium grained, trace fines, strong HCl reaction, carbonate nodules, clay seam
52.9	23.5	7	11	14	25	SS-8			52.9 / 23.5 — POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very firm, wet, fine grained, few fines, strong HCl reaction
47.9	28.5	7	7	9	16	SS-9			47.9 / 28.5 — Sandy FAT CLAY (CH), very pale brown (10YR7/3), very stiff, moist, some sand, weak HCl reaction, little carbonate nodules, ferrous staining, trace gravel
42.9	33.5	8	10	37	47	SS-10			43.9 / 32.5 — Clayey SAND (SC), very pale brown (10YR8/2), dense, moist, fine grained, some fines, strong HCl reaction, carbonate nodules, ferrous staining
37.9	38.5	19	22	27	49	SS-11			38.5ft: reddish yellow (5YR7/6), little fines
32.9	43.5	5	7	8	15	SS-12			32.9 / 43.5 — FAT CLAY (CH), brownish yellow (10YR6/6), mottled light greenish gray (10YR8/1), stiff, moist, few sand, weak HCl reaction, organics, trace carbonate nodules
27.9	48.5	5	6	9	15	SS-13			48.5ft: light brownish gray (10YR6/2), little sand, ferrous staining
22.9	53.5	8	17	24	41	SS-14			53.5ft: very pale brown (10YR7/3), hard, strong HCl reaction,

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST C. Gandy	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2308	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.4 ft (NAVD88)	NORTHING 13,404,198 US ft (NAD83)	EASTING 2,599,334 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-55 LC	DRILLER: D. White/O. Smith	HAMMER (ID) 140 lb. Auto (MEC 02)
DATE STARTED 12/19/07	COMPLETED 12/20/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
20.3					Continued from previous page				
17.9	58.5								FAT CLAY (CH), brownish yellow (10YR6/6), mottled light greenish gray (10YR8/1), stiff, moist, few sand, weak HCl reaction, organics, trace carbonate nodules *(continued)*
12.9	63.5	3	5	6	11	SS-15			58.5ft: light brown (7.5YR6/3), few sand
7.9	68.5	4	6	7	13	SS-16			63.5ft: light brownish gray (2.5Y6/2), mottled light brown, little sand
2.9	73.5	7	6	6	12	SS-17			68.5ft: very pale brown (10YR7/3), mottled light greenish gray (10Y8/1), few sand, strong HCl reaction
-2.1	78.5	4	8	8	16	SS-18			73.5ft: light gray (10YR7/2), very stiff, organics
-7.1	83.5	7	6	8	14	SS-19			78.5ft: stiff, some sand, weak HCl reaction
-12.1	88.5	11	11	16	27	SS-20			-6.1 / 82.5: Clayey SAND (SC), very pale brown (10YR8/2), very firm, moist, fine to medium grained, little to some fines, no HCl reaction, increasing clay content with depth
-17.1	93.5	9	12	15	27	SS-21			-12.1 / 88.5: FAT CLAY with sand (CH), very pale brown (10YR7/3), very stiff, moist, little sand, strong HCl reaction, carbonate nodules, ferrous staining
-22.1	98.5	14	16	23	39	SS-22			93.5ft: hard
		22	24	33	57	SS-23			-19.6 / 96.0: Clayey SAND (SC), light gray (10YR7/2), very dense, wet, fine grained, little fines, strong HCl reaction, carbonate nodules
									-23.6 / 100.0: Boring Terminated at Elevation -23.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By J. Pope Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2310	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.0 ft (NAVD88)	NORTHING 13,406,602 US ft (NAD83)	EASTING 2,601,354 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 1/9/08	COMPLETED 1/9/08	CASING DEPTH: 28.0 ft	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
76.0					Ground Surface				76.0 / 0.0
76.0	0.0	7	6	6	12	SS-1			Sandy LEAN CLAY (CL), brown (7.5YR5/2), stiff, dry, fine grained, weak HCl reaction, roots
72.5	3.5	5	6	7	13	SS-2			3.5ft: pale yellow (5Y8/2), moist, no HCl reaction
70.0	6.0	8	9	12	21	SS-3			71.0 / 5.0 Silty Clayey SAND (SC-SM), pale yellow (2.5Y7/4), medium dense, moist, fine grained, little fines, no HCl reaction, black staining
67.5	8.5	4	4	5	9	SS-4			8.0ft: loose, moist, fine grained, no HCl reaction
65.0	11.0	5	7	7	14	SS-5			65.0 / 11.0 POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), firm, strong HCl reaction, orange staining, carbonate nodules
62.5	13.5	5	6	10	16	SS-6			13.5ft: no fines, no HCl reaction
57.5	18.5	6	14	17	31	SS-7			59.0 / 17.0 Clayey SAND (SC), light gray (2.5Y7/2), dense, moist, fine grained, some fines, carbonate nodules, orange and brown staining, weak HCl reaction
52.5	23.5	6	13	21	34	SS-8			55.5 / 20.5 Sandy FAT CLAY (CH), light olive gray (5Y6/2), mottled brownish yellow (10YR6/6), hard, moist, some sand, gravel-sized carbonate nodules, black staining
47.5	28.5	9	13	20	33	SS-9			48.0 / 28.0 Clayey SAND (SC), light gray (2.5Y7/2), mottled brownish yellow (10YR6/6), dense, moist, fine grained to gravel-sized nodules, some fines, carbonate nodules, orange and brown staining, no to weak HCl reaction
42.5	33.5	10	16	18	34	SS-10			33.5ft: brownish yellow (10YR6/8), mottled light olive gray (5Y6/2), little fines, clay lenses
37.5	38.5	16	16	18	34	SS-11			39.0 / 37.0 POORLY GRADED SAND (SP), yellow (2.5Y7/6), dense, moist, fine grained, trace fines, weak HCl reaction
32.5	43.5	7	8	14	22	SS-12			35.0 / 41.0 Sandy FAT CLAY (CH), brownish yellow (10YR6/6), mottled light olive gray (5Y6/2), very stiff, moist, some sand, no HCl reaction, carbonate nodules
27.5	48.5	8	12	17	29	SS-13			29.0 / 47.0 Clayey SAND (SC), light gray (2.5Y7/2), very firm, moist, fine grained, some fines, no HCl reaction on sand, carbonate nodules
22.5	53.5	6	6	11	17	SS-14			25.0 / 51.0 POORLY GRADED SAND (SP), pale yellow (2.5Y7/4), firm, moist to wet, fine grained, trace fines, no to weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2310	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.0 ft (NAVD88)	NORTHING 13,406,602 US ft (NAD83)	EASTING 2,601,354 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 1/9/08	COMPLETED 1/9/08	CASING DEPTH: 28.0 ft	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
19.8					Continued from previous page				
17.5	58.5								POORLY GRADED SAND (SP), pale yellow (2.5Y7/4), firm, moist to wet, fine grained, trace fines, no to weak HCl reaction *(continued)*
		16	22	27	49	SS-15			59.5ft: dense, no fines, no HCl reaction
									15.0 — 61.0
12.5	63.5								Sandy FAT CLAY (CH), light gray (2.5Y7/2), very stiff, moist, some fine sand, no HCl reaction, carbonate nodules, black and brown staining
		8	10	14	24	SS-16			
7.5	68.5								
		5	7	9	16	SS-17			68.5ft: light brownish gray (2.5Y6/2)
2.5	73.5								
		5	7	9	16	SS-18			73.5ft: light olive gray (5Y6/2), mottled brownish yellow (10YR6/6), few to little fine sand, weak HCl reaction
-2.6	78.5								
		7	9	12	21	SS-19			78.5ft: very pale brown (10YR7/3), trace gravel, some fine sand, weak HCl reaction on clay, brown staining
-7.6	83.5								
		5	7	8	15	SS-20			83.5ft: light gray (5Y7/2), stiff, little sand, no HCl reaction on clay
									88.5ft: light olive gray (5Y6/2), very stiff, few to little fine sand, carbonate nodules, gypsum, no HCl reaction on clay
-12.6	88.5								
		9	12	14	26	SS-21			
									-14.6 — 90.5
									POORLY GRADED SAND (SP), pale yellow (2.5Y8/2), very dense, moist, fine grained, no fines, no to weak HCl reaction
-17.6	93.5								
		4	17	50/0.5	67/1.0	SS-22			
									-21.1 — 97.0
-22.6	98.5								Clayey SAND (SC), pale yellow (2.5Y7/3), dense, moist, fine grained, some fines, no HCl reaction, carbonate nodules
		8	20	19	39	SS-23A/B			-23.1 — 99.0
									-24.1 — 100.0 POORLY GRADED SAND (SP), pale yellow (2.5Y7/4), dense, moist, fine grained, no fines, no HCl reaction
									Boring Terminated at Elevation -24.1 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2315 / DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 47.1 ft (NAVD88)	NORTHING 13,416,229 US ft (NAD83) / EASTING 2,609,409 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.1 ft / DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 12/18/07 / COMPLETED 12/20/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
47.1					Ground Surface				47.1 / 0.0
47.1	0.0	WOH	2	2	4	SS-1			Silty SAND (SM), dark brown (7.5YR3/3), very loose, moist, fine grained, some fines, no HCl reaction, trace roots
43.6	3.5	7	7	9	16	SS-2A/B			42.9 / 4.2
41.1	6.0	3	5	7	12	SS-3			4.2ft FAT CLAY with sand (CH), greenish gray (10Y6/1), mottled red (2.5YR5/8), very stiff, moist, little sand, no HCl reaction, trace red nodules and staining
38.6	8.5	3	4	4	8	SS-4			6.0ft: light yellowish brown (2.5Y6/3), stiff, moist, few sand, strong HCl reaction, trace carbonate nodules, black staining
36.1	11.0	3	3	2	5	SS-5			8.5ft: light brownish gray (2.5Y6/2), firm, some sand 11.0ft: light gray (2.5Y7/2), laminated with light olive brown (2.5Y5/4)
33.6	13.5	3	4	6	10	SS-6A/B			32.8 / 14.3
27.5	19.6	5	7	7	14	SS-7			POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), loose, moist to wet, fine grained, trace fines, no to weak HCl reaction 19.6ft: light brownish gray (2.5Y6/2), firm
22.5	24.6	5	6	8	14	SS-8			
17.5	29.6	6	8	9	17	SS-9			
12.5	34.6	4	11	15	26	SS-10A/B			34.0 to 35.0ft: interbedded layer of fat clay, light brownish gray (10YR6/2), very stiff, moist, few sand, weak HCl reaction 35.0ft: light yellowish brown (2.5Y6/3), very firm
7.5	39.6	6	12	17	29	SS-11			39.6ft: strong HCl reaction
2.5	44.6	15	25	21	46	SS-12			44.6ft: light brownish gray (2.5Y6/2), dense
-2.5	49.6	10	15	14	29	SS-13			-2.5 / 49.6 POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), very firm, wet, fine to coarse grained, trace fines, no HCl reaction
-7.5	54.6	12	10	15	25	SS-14			54.6ft: light gray (10YR7/2), few gravel (chert), weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2315	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 47.1 ft **(NAVD88)**	**NORTHING** 13,416,229 **US ft (NAD83)**	**EASTING** 2,609,409 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 101.1 ft	**DRILL MACHINE** CME-550	**DRILLER: L. Carter/C. Hayden**	**HAMMER (ID)** 140 lb. Auto (MEC 03)
DATE STARTED 12/18/07	**COMPLETED** 12/20/07	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-9.0					Continued from previous page				
-12.5	59.6								POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), very firm, wet, fine to coarse grained, trace fines, no HCl reaction *(continued)*
-17.5	64.6	9	12	13	25	SS-15			59.6 to 60.1ft: interbedded poorly graded sand, light gray (2.5Y7/2), no HCl reaction
-22.5	69.6	6	5	6	11	SS-16			POORLY GRADED SAND with clay and gravel (SP-SC), light brownish gray (2.5Y6/2), firm, wet, fine grained, few fines and gravel, no HCl reaction
-27.5	74.6	7	15	17	32	SS-17			69.6ft: no gravel, dense
-32.5	79.6	7	11	13	24	SS-18			Clayey SAND (SC), light gray (2.5Y7/2), very firm, wet, fine to coarse grained, little fines, no HCl reaction
-37.5	84.6	11	14	15	29	SS-19			POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), very firm, wet, fine to coarse grained, trace fines, no HCl reaction
-42.5	89.6	6	7	8	15	SS-20			FAT CLAY (CH), light gray (5Y7/2), stiff, moist, few sand, weak HCl reaction, trace carbonate nodules, trace orange staining
-47.5	94.6	10	13	16	29	SS-21			POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y6/2), very firm, wet, fine grained, few fines, no HCl reaction
-52.5	99.6	8	16	16	32	SS-23			94.6ft: dense
		8	15	17	32	SS-24			

-17.5 64.6 -27.5 74.6 -32.5 79.6 -35.4 82.5 -42.5 89.6 -54.0 101.1

Boring Terminated at Elevation -54.0 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6·12·08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2316	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 75.2 ft (NAVD88)	NORTHING 13,413,189 US ft (NAD83)	EASTING 2,608,492 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.8 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/ C Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/6/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
75.2					Ground Surface				75.2 — 0.0
75.2	0.0	7	9	7	16	SS-1			FAT CLAY with sand (CH), very dark gray (10YR3/1), very stiff, moist, little sand, no HCl reaction, organics, trace roots
71.7	3.5	9	11	13	24	SS-2			3.5ft: light yellowish brown (2.5Y6/3), trace carbonate nodules
69.2	6.0	7	8	9	17	SS-3			6.0ft: brownish yellow (10YR6/6), trace black staining
66.7	8.5	4	7	10	17	SS-4			8.5ft: pale brown (10YR6/3), trace carbonate
64.2	11.0	8	11	12	23	SS-5 A/B			63.9 — 11.3 Clayey SAND (SC), light yellowish brown (2.5Y6/4), very firm, moist to wet, fine grained, some fines, no HCl reaction
61.7	13.5	8	12	12	24	SS-6 A/B			61.2 — 14.0 FAT CLAY (CH), yellowish brown (10YR5/4), to light brownish gray (2.5Y6/2), very stiff, moist, few sand, strong HCl reaction, trace carbonate nodules
55.4	19.8	5	6	8	14	SS-7			19.8ft: stiff
50.4	24.8	9	12	12	24	SS-8			50.4 — 24.8 Clayey SAND (SC), light yellowish brown (2.5Y6/4), very firm, wet, fine grained, some fines, strong HCl reaction, trace carbonate
45.4	29.8	4	5	7	12	SS-9			45.4 — 29.8 FAT CLAY (CH), light yellowish brown (2.5YR6/3), stiff, moist, trace sand, strong HCl reaction, trace orange nodules, trace black veining
40.4	34.8	3	5	6	11	SS-10			34.8ft: light olive gray (5Y6/2), no HCl reaction, trace carbonate nodules
35.4	39.8	6	8	11	19	SS-11			39.8ft: very stiff, few sand, strong HCl reaction
30.4	44.8	5	9	9	18	SS-12			44.8ft: light gray (2.5Y7/1), and yellowish brown (10YR5/6)
25.4	49.8	8	10	36	46	SS-13			29.2 — 46.0 Field reports do not indicate that SS-12 was split into separate jars; Clayey SAND (SC), light gray (2.5Y7/1), firm, wet, fine grained, little fines, strong HCl reaction; 49.8ft: light olive gray (5Y6/2), dense, some fines
20.4	54.8	19	14	14	28	SS-14			20.4 — 54.8

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2316	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 75.2 ft (NAVD88)	NORTHING 13,413,189 US ft (NAD83)	EASTING 2,608,492 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.8 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/ C Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/6/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
19.1					Continued from previous page				
									POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y6/2), very firm, wet, fine grained, few fines, strong HCl reaction *(continued)*
15.4	59.8								17.2 — 58.0
		5	7	7	14	SS-15			FAT CLAY (CH), light gray (5Y4/2), mottled strong brown (7.5YR5/6), stiff, moist, trace sand, strong HCl reaction, trace black staining
10.4	64.8								
		3	4	4	8	SS-16			64.8ft: light olive gray (5Y6/2), mottled strong brown (7.5YR5/8), firm, some sand
5.4	69.8								
		4	5	7	12	SS-17			69.8ft: gray (2.5Y6/1), stiff, few sand
									3.2 — 72.0
									POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), dense, wet, few fines, strong HCl reaction
0.4	74.8								
		21	24	20	44	SS-18			
-4.6	79.8								-4.6 — 79.8
		13	11	18	29	SS-19			POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), very firm, wet, trace fines, strong HCl reaction, trace chert nodules
-9.6	84.8								-9.6 — 84.8
		8	8	14	22	SS-20			FAT CLAY (CH), greenish gray (10Y6/1), mottled strong brown (7.5YR5/8), very stiff, moist, trace sand, weak HCl reaction, trace massive and nodular carbonate
-14.6	89.8								
		6	10	13	23	SS-21			89.8ft: light brownish gray (2.5Y6/2), little sand
									-17.8 — 93.0
-19.6	94.8								POORLY GRADED SAND with clay (SP-SC), light brownish gray (10YR6/2), very dense, wet, fine sand, few fines, strong HCl reaction, trace massive and nodular carbonate
		22	29	35	64	SS-22			
-24.6	99.8								
		32	50/0.5		82/1.0	SS-23			-25.6 — 100.8
									Boring Terminated at Elevation -25.6 ft

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPH Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2317	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,410,598 US ft (NAD83)	EASTING 2,600,512 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.0 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/ C Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/8/08	COMPLETED 1/9/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
76.7					Ground Surface				76.7 0.0
76.7	0.0	5	6	9	15	SS-1			Sandy LEAN CLAY (CL), black (10YR2/1), stiff, moist, trace sand, no HCl reaction, organics, trace roots
73.2	3.5	11	13	15	28	SS-2			3.5ft: dark gray (2.5Y4/1), very stiff, few sand, strong HCl reaction in clay, trace carbonate nodules
70.7	6.0	7	9	10	19	SS-3			71.7 5.0 LEAN CLAY with sand (CL), light brownish gray (2.5Y6/2), very stiff, moist, trace carbonate grains
68.2	8.5	10	13	16	29	SS-4			8.5ft: light brownish gray (2.5Y6/2), to yellowish brown (10YR5/8), massive and nodular carbonate
65.7	11.0	8	10	13	23	SS-5			65.7 11.0 FAT CLAY (CH), light brownish gray (2.5Y6/2), very stiff, moist, few sand, trace black staining, carbonate nodules
63.2	13.5	8	9	11	20	SS-6			13.5ft: weak HCl reaction in clay, trace black and orange nodules
57.2	19.5	12	17	24	41	SS-7			57.2 19.5 Clayey SAND (SC), light gray (5Y7/2), dense, moist, fine grained, some fines, no HCl reaction
52.2	24.5	6	7	10	17	SS-8			52.2 24.5 FAT CLAY (CH), greenish gray (10Y6/1), very stiff, moist, few sand, no HCl reaction, trace black staining, trace orange staining
47.2	29.5	9	18	20	38	SS-9 A/B			46.9 29.8 Clayey SAND (SC), light brownish gray (2.5Y6/2), dense, moist, fine grained, little fines, no HCl reaction, trace carbonate nodules
42.2	34.5	8	10	13	23	SS-10			42.2 34.5 FAT CLAY with sand (CH), light olive gray (5Y6/2), very stiff, moist, few to little sand, no HCl reaction, trace black staining
37.2	39.5	17	24	38	62	SS-11			Field reports do not indicate that SS-11 was split into separte jars 36.4 40.3 39.5ft: hard POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y7/2), very dense, wet, fine grained, few fines, strong HCl reaction
32.2	44.5	5	8	28	36	SS-12			32.2 44.5 Clayey SAND (SC), light brownish gray (2.5Y6/2), dense, wet, fine grained, little fines, strong HCl reaction
27.2	49.5	7	9	13	22	SS-13			29.7 47.0 FAT CLAY (CH), yellowish brown (10YR5/8), very stiff, moist, trace sand, strong HCl reaction, trace carbonate grains and black veining
22.2	54.5	10	14	16	30	SS-14 A/B			21.9 54.8

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2317	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 76.7 ft **(NAVD88)**	**NORTHING** 13,410,598 **US ft (NAD83)**	**EASTING** 2,600,512 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 101.0 ft	**DRILL MACHINE** CME-550	**DRILLER: L. Carter/ C Hayden**	**HAMMER (ID)** 140 lb. Auto (MEC 03)
DATE STARTED 1/8/08	**COMPLETED** 1/9/08	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
20.6					Continued from previous page				
17.2	59.5								Clayey SAND (SC), light yellowish brown (10YR6/4), with brownish yellow (10YR6/8), very firm, wet, fine grained, some fines, no HCl reaction *(continued)* 17.2 — 59.5
12.2	64.5	8	13	46	59	SS-15			Sandy FAT CLAY (CH), light gray (2.5Y7/2), hard, moist, some sand, weak HCl reaction, trace carbonate nodules, increase sand content with depth
7.2	69.5	6	8	12	20	SS-16			64.5ft: greenish gray (10Y6/1), very stiff, little sand, weak to strong HCl reaction
2.2	74.5	6	9	11	20	SS-17			69.5ft: strong brown (7.5YR5/8), mottled greenish gray (10Y6/1), trace sand, strong HCl reaction, trace carbonate nodules
-2.8	79.5	11	15	32	47	SS-18			74.5ft: light olive gray (5Y6/2), mottled strong brown (7.5YR5/8), hard, little sand, increase sand content with depth
-7.8	84.5	6	10	12	22	SS-19			79.5ft: strong brown (7.5YR5/8), mottled greenish gray (10Y6/1), very stiff, trace carbonate
-12.8	89.5	6	8	11	19	SS-20			84.5ft: greenish gray (10Y6/1), mottled strong brown (7.5YR5/8), weak HCl reaction in clay, trace black staining, trace carbonate nodules
-17.8	94.5	7	10	11	21	SS-21			89.5ft: light gray (5Y7/2), strong HCl reaction, trace black and orange staining
-22.8	99.5	6	10	15	25	SS-22			94.5ft: greenish gray (10Y6/1), weak HCl reaction, trace massive and nodular carbonate, trace orange staining
		30	32	48	80	SS-23			-22.8 — 99.5 Clayey SAND (SC), light gray (2.5Y7/2), very dense, wet, fine grained, some fines, strong HCl reaction -24.3 — 101.0
									Boring Terminated at Elevation -24.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2318	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 75.3 ft **(NAVD88)**	**NORTHING** 13,401,613 **US ft (NAD83)**	**EASTING** 2,601,155 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 101.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 12/17/07	**COMPLETED** 12/18/07	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
75.3					Ground Surface				75.3 / 0.0
75.3	0.0	3	4	5	9	SS-1			Sandy LEAN CLAY (CL), very dark gray (10YR3/1), stiff, moist, few sand, no HCl reaction
71.8	3.5	3	4	6	10	SS-2			71.8 / 3.5 — FAT CLAY (CH), very dark gray (10YR3/1), stiff, moist, few sand, no HCl reaction
69.3	6.0	4	5	6	11	SS-3			6.0ft: grayish brown (10YR5/2), weak HCl reaction
66.8	8.5	4	5	8	13	SS-4			8.5ft: light yellowish brown (10YR6/4), strong HCl reaction
64.3	11.0	5	8	9	17	SS-5			11.0ft: very stiff
61.8	13.5	5	8	11	19	SS-6			
55.3	20.0	4	4	7	11	SS-7			20.0ft: pale brown (10YR6/3), stiff
50.3	25.0	4	7	9	16	SS-8			25.0ft: light yellowish brown (10YR6/4), very stiff
45.3	30.0	4	5	6	11	SS-9			30.0ft; yellowish brown (10YR5/6), stiff
40.3	35.0	7	11	13	24	SS-10			35.0ft: light gray (10YR7/2), very stiff, carbonate nodules, strong HCl reaction
35.3	40.0	4	10	14	24	SS-11A/B			35.0 / 40.3 — Clayey SAND (SC), light gray (10YR7/2), very firm, moist, fine grained, little fines, no HCl reaction
30.3	45.0	8	10	12	22	SS-12			45.0ft: light yellowish brown (10YR6/4)
25.3	50.0	10	12	12	24	SS-13			50.0ft: light gray (10YR7/1)
20.3	55.0	17	19	19	38	SS-14			55.0ft: light brownish gray (10YR6/2), dense

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2318	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 75.3 ft (NAVD88)	NORTHING 13,401,613 US ft (NAD83)	EASTING 2,601,155 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/17/07	COMPLETED 12/18/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
19.2					Continued from previous page				
									Clayey SAND (SC), light gray (10YR7/2), very firm, moist, fine grained, little fines, no HCl reaction *(continued)*
15.3	60.0								
		11	11	12	23	SS-15			60.0ft: very firm
10.3	65.0								10.3 — 65.0
		6	10	15	25	SS-16			FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, moist, little sand, no HCl reaction, ferrous staining
5.3	70.0								
		9	11	14	25	SS-17			
0.3	75.0								0.3 — 75.0
		10	10	15	25	SS-18			Clayey SAND (SC), pale brown (10YR6/3), very firm, moist, fine grained, little fines, no HCl reaction
-4.7	80.0								-4.7 — 80.0
		5	4	7	11	SS-19			FAT CLAY with sand (CH), light gray (10YR7/1), stiff, moist, little sand, no HCl reaction
-9.7	85.0								
		8	5	13	18	SS-20			85.0ft: mottled brownish yellow (10YR6/6), very stiff, carbonate nodules
-14.7	90.0								-14.7 — 90.0
		8	15	49	64	SS-21			Clayey SAND (SC), light gray (10YR7/2), very dense, moist, fine grained, little fines, no HCl reaction, ferrous staining
-19.7	95.0								
		50/0.2			50/0.2	SS-22			
-24.7	100.0								-24.7 — 100.0
		9	11	15	26	SS-23			FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, moist, little sand, no HCl reaction
									-26.2 — 101.5
									Boring Terminated at Elevation -26.2 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2319	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 74.2 ft (NAVD88)	NORTHING 13,403,601 US ft (NAD83)	EASTING 2,603,049 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/16/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
74.2					Ground Surface				74.2 / 0.0
74.2	0.0	6	10	11	21	SS-1			Sandy LEAN CLAY (CL), very dark gray (10YR3/1), very stiff, moist, fine to medium grained sand, no HCl reaction, trace organics
70.7	3.5								71.9 / 2.3 Clayey SAND (SC) gray (10YR6/1), firm, moist, fine to medium grained sand no HCl reaction, trace organics
68.2	6.0	6	8	11	19	SS-2			
65.7	8.5	9	8	11	19	SS-3			65.7 / 8.5
63.2	11.0	6	7	8	15	SS-4			Sandy LEAN CLAY (CL), pale brown (10YR6/3), stiff, moist, fine to medium grained sand, fine gravel, no HCl reaction
60.7	13.5	3	4	5	9	SS-5			63.2 / 11.0 Silty clayey SAND (SC-SM), brown (10YR5/3), loose, moist, fine to medium grained sand, no HCl reaction
54.2	20.0	6	9	12	21	SS-6			60.7 / 13.5 POORLY GRADED SAND with silt (SP-SM), grayish brown (10YR5/2), very firm, wet, fine to medium grained sand, no HCl reaction
49.2	25.0	10	17	23	40	SS-7			54.2 / 20.0 Silty SAND (SM), pale brown (10YR6/3), dense, moist, fine to medium grained sand, fine gravel, no HCl reaction
44.2	30.0	6	8	11	19	SS-8			49.2 / 25.0 FAT CLAY with sand (CH), light gray (10YR7/1), mottled brownish yellow (10YR6/6), very stiff, moist, fine to medium grained sand, weak HCl reaction
39.2	35.0	16	17	16	33	SS-9			44.2 / 30.0 LEAN CLAY with sand (CL), light gray (10YR7/1), hard, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction Sand content decreases with depth
34.2	40.0	12	18	24	42	SS-10			39.2 / 35.0 Sandy SILT (ML), brownish yellow (10YR6/6), moist, fine to medium grained sand, strong HCl reaction 37.7 / 36.5 Clayey SAND (SC), light yellowish brown (10YR6/4), dense, moist, fine to coarse grained sand, fine gravel, strong HCl reaction
29.2	45.0	21	22	26	48	SS-11			
24.2	50.0	22	46	39	85	SS-12			45ft: very dense, no gravel 24.2 / 50.0
19.2	55.0	5	12	13	25	SS-13			FAT CLAY (CH), light gray (10YR7/1), very stiff, moist, fine to medium grained sand, strong HCl reaction 19.2 / 55.0
		5	8	8	16	SS-14			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2319	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 74.2 ft (NAVD88)	NORTHING 13,403,601 US ft (NAD83)	EASTING 2,603,049 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/16/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
18.1					Continued from previous page				
14.2	60.0								Sandy SILT (ML), brown (10YR5/3), moist, fine to coarse grained sand, fine gravel, strong HCl reaction *(continued)*
		5	5	7	12	SS-15			FAT CLAY (CH), brown (10YR5/3), stiff, moist, weak HCl reaction
9.2	65.0								
		5	8	10	18	SS-16			65.0ft: pale brown (10YR6/3), mottled brownish yellow (10YR6/6), very stiff, strong HCl reaction, black staining
4.2	70.0								
		5	7	10	17	SS-17			Sandy LEAN CLAY (CL), light brownish gray (10YR6/2), very stiff, moist, fine to medium grained sand, no HCl reaction, ferrous staining
-0.8	75.0								
		6	9	11	20	SS-18			75.0ft: light gray (10YR7/1)
-2.3	76.5								Silty SAND (SM), gray (10YR6/1), dense, moist, fine to medium grained sand, no HCl reaction
-5.8	80.0								
		11	18	17	35	SS-19			
-10.8	85.0								
		5	6	11	17	SS-20			FAT CLAY with sand (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), very stiff, moist, fine to medium grained sand, no HCl reaction
-15.8	90.0								
		13	22	25	47	SS-21			POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), dense, moist, fine to coarse grained sand, no HCl reaction
-20.8	95.0								
		6	8	9	17	SS-22			Silty SAND (SM), light gray (10YR7/1), firm, wet, fine to coarse grained sand, fine gravel, no HCl reaction
-25.8	100.0								
		39	48	19	67	SS-23			POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), very dense, wet, fine to coarse grained sand, fine gravel, no HCl reaction
-35.8	110.0								
		5	10	18	28	SS-24			Silty SAND (SM), pale brown (10YR6/3), very firm, moist, fine to medium grained sand, no HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2319	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 74.2 ft **(NAVD88)**	**NORTHING** 13,403,601 **US ft (NAD83)**	**EASTING** 2,603,049 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 151.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 12/16/07	**COMPLETED** 12/17/07	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-38.0					Continued from previous page				
									Silty SAND (SM), pale brown (10YR6/3), very firm, moist, fine to medium grained sand, no HCl reaction *(continued)*
-45.8	120.0	19	33	27	60	SS-25			120.0ft: light brownish gray (10YR6/2), very dense, strong HCl reaction
-55.8	130.0	18	24	22	46	SS-26			130.0ft: pale brown (10YR6/3), dense, weak HCl reaction
-65.8	140.0	20	24	46	70	SS-27			-65.8 140.0 POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), very dense, moist, fine to coarse grained sand, fine gravel, no HCl reaction, interbedded clay layers
-75.8	150.0	34	36	48	84	SS-28			-75.8 150.0 Silty SAND (SM), light yellowish brown (10YR6/4), very dense, moist, fine to medium grained sand, weak HCl reaction
									-77.3 151.5 Boring Terminated at Elevation -77.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2319UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 74.2 ft (NAVD88)	NORTHING 13,403,596 US ft (NAD83)	EASTING 2,603,063 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 115.0 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) NA
DATE STARTED 2/2/08	COMPLETED 2/4/08	CASING DEPTH: N/A	BITS USED: 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
74.2					Ground Surface				74.2 0.0
									Begin sampling by Shelby tube
70.7	3.5								
						UD-1			3.5ft: no recovery
68.7	5.5								
						UD-2			5.5ft: Clayey SAND (SC), grayish brown (10YR5/2), moist, fine to coarse grained sand, no HCl reaction - 1.8ft recovery 7.3ft: Clayey SAND (SC), pale yellow (2.5Y7/3), moist, some fines, brown staining, carbonate nodules, weak HCl reaction
63.2	11.0								
						UD-3			11.0ft: Silty SAND (SM), pale yellow (2.5Y7/3), moist, some fines, fine to medium sand, no HCl reaction (visual) - 1.8ft recovery
49.2	25.0								
						UD-4			25.0ft: FAT CLAY with sand (CH), light yellowish brown (2.5Y6/4), mottled light gray (5Y7/1), moist, no HCl reaction - 2.0ft recovery
39.2	35.0								
						UD-5			35.0ft: Sandy SILT (ML), brownish yellow (10YR6/6), moist, fine to medium grained sand, strong HCl reaction - 1.7ft recovery 36.7ft: Clayey SAND (SC), pale yellow (2.5Y7/3), moist, little fines, strong HCl reaction
19.2	55.0								
						UD-6			55.0ft: Sandy SILT (ML), light yellowish brown

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2319UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 74.2 ft (NAVD88)	NORTHING 13,403,596 US ft (NAD83)	EASTING 2,603,063 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 115.0 ft	DRILL MACHINE CME-550-X	DRILLER: R. Banks/R. Landaros	HAMMER (ID) NA
DATE STARTED 2/2/08	COMPLETED 2/4/08	CASING DEPTH: N/A	BITS USED: 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
18.1					Continued from previous page				
									(2.5Y6/4), moist, fine to coarse grained sand, fine gravel, strong HCl reaction - 1.9ft recovery
9.2	65.0					UD-7			65.0ft: Sandy LEAN CLAY (CL), light yellowish brown (2.5Y6/3), moist, no sand, strong HCl reaction - 1.8ft recovery 66.8ft: Clayey SAND (SC), light gray (5Y7/1), moist, fine grained, some fines, no HCl reaction
-0.8	75.0					UD-8			75.0ft: POORLY GRADED SAND with silt (SP-SM), light gray (5Y7/2), moist, fine to medium grained sand, weak HCl reaction - 1.4ft recovery
-10.8	85.0					UD-9			85.0ft: FAT CLAY with sand (CH), mottled light gray (2.5Y7/2), and olive yellow (2.5Y6/6), moist, no HCl reaction - 1.7ft recovery 86.7ft: POORLY GRADED SAND with silt (SP-SM), light gray (5Y7/2), moist, some fines, no HCl reaction
-20.8	95.0					UD-10			95.0ft: POORLY GRADED SAND (SP), mottled light gray (5Y7/1), and brownish yellow (10YR6/8), moist, fine to coarse grained sand, fine gravel (visual) - 1.2ft recovery
-35.8	110.0					UD-11			Changed sample method to Pitcher barrel 110.0ft: FAT CLAY with sand (CH), light gray (5Y7/2), moist, no HCl reaction - 0.1ft recovery

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** A. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777		**GROUND WATER (ft)**
BORING NO. B-2319UD	**DRILL METHOD:** Mud Rotary	**SAMPLE METHODS:** UD	**0 HR.** ND
GROUND SURFACE ELEV. 74.2 ft **(NAVD88)**	**NORTHING** 13,403,596 **US ft (NAD83)**	**EASTING** 2,603,063 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 115.0 ft	**DRILL MACHINE** CME-550-X	**DRILLER:** R. Banks/R. Landaros	**HAMMER (ID)** NA
DATE STARTED 2/2/08	**COMPLETED** 2/4/08	**CASING DEPTH:** N/A	**BITS USED:** 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	▼ MOI	LOG	SOIL AND ROCK DESCRIPTION
-38.0					Continued from previous page				
-38.8	113.0					UD-12			110.1ft: Silty SAND (SM), light gray (2.5Y7/2), wet, some fines, no HCl reaction *(continued)* 113.0ft: no recovery
									-40.8 115.0 Boring Terminated at Elevation -40.8 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDZ Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2320	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.5 ft (NAVD88)	NORTHING 13,407,574 US ft (NAD83)	EASTING 2,606,840 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/14/07	COMPLETED 12/15/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
71.5					Ground Surface				71.5 / 0.0
71.5	0.0	7	6	6	12	SS-1			Sandy LEAN CLAY (CL), very dark gray (10YR3/1), stiff, moist, few sand, no HCl reaction, roots
68.0	3.5	4	6	8	14	SS-2			3.5ft: light gray (10YR7/1), mottled dark gray (10YR4/1), strong HCl reaction, carbonate nodules
66.5	5.0								LEAN CLAY with sand (CL), gray (10YR6/1), very stiff, moist, strong HCl reaction, cabonate nodules
65.5	6.0	5	11	12	23	SS-3			
63.0	8.5	6	14	13	27	SS-4			8.5ft: light brownish gray (10YR6/2), increasing sand content
60.5	11.0	10	15	14	29	SS-5			FAT CLAY (CH), light brownish gray (10YR6/2), very stiff, moist, strong HCl reaction
58.0	13.5	4	9	15	24	SS-6			13.5ft: pale brown (10YR6/3)
51.5	20.0	8	13	12	25	SS-7			Clayey SAND (SC), pale brown (10YR6/3), very firm, moist, little fines, strong HCl reaction
46.5	25.0	8	11	26	37	SS-8			FAT CLAY (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), hard, moist, few sand, strong HCl reaction, carbonate nodules
41.5	30.0	8	15	15	30	SS-9			Clayey SAND (SC), light gray (10YR7/2), very firm, moist, fine grained, little fines, no HCl reaction
36.5	35.0	10	14	18	32	SS-10			35.0ft: dense, ferrous staining
31.5	40.0	9	15	23	38	SS-11			40.0ft: yellowish brown (10YR5/8), weak HCl reaction
26.5	45.0	12	26	26	52	SS-12			45.0ft: very dense
21.5	50.0	16	31	31	62	SS-13			50.0ft: pale brown (10YR6/3), strong HCl reaction
16.5	55.0	10	17	24	44	SS-14			55.0ft: light brownish gray (10YR6/2), dense, weak

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

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BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2320	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.5 ft (NAVD88)	NORTHING 13,407,574 US ft (NAD83)	EASTING 2,606,840 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/14/07	COMPLETED 12/15/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
15.4					Continued from previous page				
									HCl reaction Clayey SAND (SC), light gray (10YR7/2), very firm, moist, fine grained, little fines, no HCl reaction *(continued)*
11.5	60.0								
		19	37	47	84	SS-15			60.0ft: pale brown (10YR6/3), very dense, fine to medium grained, strong HCl reaction (visual)
6.5	65.0								6.5 — 65.0
		6	7	10	17	SS-16			FAT CLAY (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), very stiff, moist, few sand, weak HCl reaction
1.5	70.0								1.5 — 70.0
		11	11	16	27	SS-17			Clayey SAND (SC), light gray (10YR7/2), very firm, moist, fine grained, strong HCl reaction, ferrous staining (visual)
-3.5	75.0								-3.5 — 75.0
		18	30	33	63	SS-18			POORLY GRADED SAND with clay (SP-SC), brown (10YR5/3), very dense, moist, fine grained, strong HCl reaction (visual)
-8.5	80.0								-8.5 — 80.0
		5	7	9	16	SS-19			Sandy FAT CLAY (CH), light gray (10YR7/1), very stiff, moist, some sand, no HCl reaction, ferrous staining
-13.5	85.0								
		15	18	14	32	SS-20			85.0ft: hard
-18.5	90.0								
		12	13	16	29	SS-21			90.0ft: pale brown (10YR6/3), very stiff, little sand
-23.5	95.0								
		20	49	48	97	SS-22			95.0ft: light gray (10YR7/1), hard, some sand, strong HCl reaction, carbonate nodules
-28.5	100.0								-28.5 — 100.0
		27	49	50/0.3	99/0.3	SS-23			Clayey SAND (SC), pale brown (10YR6/3), very dense, moist, fine grained, little fines, no HCl reaction
-38.5	110.0								
		15	26	47	73	SS-24			110.0ft: light gray (10YR7/1), strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		**COUNTY** Victoria	**GEOLOGIST** B. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)		**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**
BORING NO. B-2320	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 71.5 ft **(NAVD88)**	**NORTHING** 13,407,574 **US ft (NAD83)**	**EASTING** 2,606,840 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 151.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 12/14/07	**COMPLETED** 12/15/07	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-40.7					Continued from previous page				
-48.5	120.0								Clayey SAND (SC), pale brown (10YR6/3), very dense, moist, fine grained, little fines, no HCl reaction *(continued)* -48.5 120.0
-58.5	130.0	7	9	12	21	SS-25			FAT CLAY (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), very stiff, moist, few sand, strong to weak HCl reaction, black staining
-68.5	140.0	10	12	15	27	SS-26			-68.5 140.0
-78.5	150.0	32	32	49	81	SS-27			Clayey SAND (SC), light brownish gray (10YR6/2), very dense, moist, fine grained, little fines, strong HCl reaction -78.5 150.0
-80.0	151.5	8	10	10	20	SS-28			FAT CLAY with sand (CH), pale brown (10YR/3), very stiff, moist, little sand, weak HCl reaction
									Boring Terminated at Elevation -80.0 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2321	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.6 ft (NAVD88)	NORTHING 13,410,954 US ft (NAD83)	EASTING 2,610,038 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/14/07	COMPLETED 12/16/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
71.6					Ground Surface				71.6 / 0.0
71.6	0.0	2	4	5	9	SS-1			Sandy LEAN CLAY (CL), black (5Y2.5/1), stiff, moist, fine to medium grained sand, organics, no HCl reaction
68.0	3.6	2	3	4	7	SS-2			68.4 / 3.2 — LEAN CLAY with sand (CL), pale yellow (2.5Y7/3), to light gray (10YR7/1), and black, firm, fine to coarse grained sand, fine gravel, weak HCl reaction, organics
65.0	6.6	3	7	10	17	SS-3			66.5 / 5.1 — 65.0 / 6.6 — FAT CLAY with sand (CH), dark gray (2.5Y4/1), moist, little sand, no to weak HCl reaction
63.1	8.5	6	10	12	22	SS-4			63.1 / 8.5 — LEAN CLAY with sand (CL), light brownish gray (2.5Y6/2), very stiff, fine to coarse grained sand, carbonate nodules, strong HCl reaction, organics
60.6	11.0	7	14	16	30	SS-5			FAT CLAY (CH) brownish yellow (10YR6/6), mottled light greenish gray (10Y7/1), very stiff, moist, fine to medium grained sand, carbonate nodules, weak HCl reaction, black staining
58.1	13.5	6	7	12	19	SS-6			58.1 / 13.5 — 11.0ft: light yellowish brown (10YR6/4), mottled light brownish gray (2.5Y6/2) — LEAN CLAY (CL) brownish yellow (10YR6/6), mottled light greenish gray (10Y7/1), very stiff, moist, fine to medium grained sand, black staining, carbonate nodules, strong HCl reaction
53.1	18.5	10	15	11	26	SS-7			53.1 / 18.5 — Sandy LEAN CLAY (CL), light yellowish brown (10YR6/4), mottled light gray (10YR7/2), very stiff, moist, fine to medium grained sand, black staining, carbonate nodules, strong HCl reaction
48.1	23.5	10	15	11	26	SS-8			48.1 / 23.5 — LEAN CLAY (CL), pale yellow (2.5Y7/3), very stiff, moist, fine grained sand, carbonate nodules, strong HCl reaction
43.1	28.5	5	7	9	16	SS-9			45.6 / 26.0 — FAT CLAY (CH), pale yellow (2.5YR7/3), mottled light gray (2.5YR7/1), very stiff, moist, fine to medium grained sand, weak HCL reaction, black stains
38.1	33.5	5	8	10	18	SS-10			33.5ft: light gray (2.5Y7/2), strong HCl reaction
33.1	38.5	7	9	13	22	SS-11			38.5ft: mottled brownish yellow (10YR6/6), carbonate nodules, weak HCl reaction
28.1	43.5	6	7	9	16	SS-12			43.5ft: light yellowish brown (10YR6/4), mottled light gray (5Y7/2)
23.1	48.5	6	7	9	16	SS-13			18.6 / 53.0
18.1	53.5	5	8	9	17	SS-14			Sandy LEAN CLAY (CL), light gray (5Y7/2), mottled yellow (2.5Y7/8), very stiff, moist, fine to medium grained sand, weak HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2321	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 71.6 ft **(NAVD88)**	**NORTHING** 13,410,954 **US ft (NAD83)**	**EASTING** 2,610,038 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.0 ft	**DRILL MACHINE** CME-45	**DRILLER: J. Warren/J. Alexander**	**HAMMER (ID)** 140 lb. Auto (MEC 12)
DATE STARTED 12/14/07	**COMPLETED** 12/16/07	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Roller Cone**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
15.5					Continued from previous page				
13.1	58.5								Sandy LEAN CLAY (CL), light gray (5Y7/2), mottled yellow (2.5Y7/8), very stiff, moist, fine to medium grained sand, weak HCl reaction *(continued)*
		5	9	12	21	SS-15			58.5ft: mottled brownish yellow (10YR6/6), carbonate nodules
8.1	63.5								
		6	7	8	15	SS-16			63.5ft: stiff, no HCl reaction
3.1	68.5								3.1 — 68.5
		10	10	11	21	SS-17			Clayey SAND (SC), light gray (2.5Y7/2), very firm, moist, fine to medium grained sand, no HCl reaction, brown staining, 0.3ft-thick sandy clay lense
-1.9	73.5								-1.9 — 73.5
		12	9	11	20	SS-18			Sandy LEAN CLAY (CL), light gray (5Y7/2), very stiff, moist, fine to medium grained sand, carbonate, no HCl reaction, brown staining
-6.9	78.5								-6.9 — 78.5
		9	15	17	32	SS-19			POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y8/2), mottled brownish yellow (10YR6/8), dense, wet, fine to medium grained sand, weak HCl reaction (visual)
-11.9	83.5								
		21	17	29	46	SS-20			83.5ft: pale yellow (2.5Y8/4), fine to coarse grained sand, fine gravel (visual)
-16.9	88.5								-16.9 — 88.5
		10	10	15	25	SS-21			Clayey SAND (SC), pale yellow (2.5Y8/4), very firm, wet, fine to coarse grained sand, fine gravel, weak HCl reaction, 0.1ft clay lense (visual)
-21.9	93.5								-21.9 — 93.5
		12	16	18	34	SS-22			POORLY GRADED SAND with clay (SP-SC), pale yellow (5Y8/2), and brownish yellow (10YR6/8), wet, dense, fine to medium grained sand, clay seams, no HCl reaction, (visual)
-26.9	98.5								-26.9 — 98.5
		17	42	42	84	SS-23			Silty SAND (SM), pale yellow (5Y8/2), and brownish yellow (10YR6/8), very dense, wet, fine to medium grained sand, weak HCl reaction (visual)
-36.4	108.0								
		50/0.1			50/0.1	SS-24			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2321	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.6 ft (NAVD88)	NORTHING 13,410,954 US ft (NAD83)	EASTING 2,610,038 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/14/07	COMPLETED 12/16/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-40.6					Continued from previous page				
									Silty SAND (SM), pale yellow (5Y8/2), and brownish yellow (10YR6/8), very dense, wet, fine to medium grained sand, weak HCl reaction (visual) *(continued)*
-46.9	118.5								-46.4 — 118.0
		16	18	21	39	SS-25			Clayey SAND (SC), pale yellow (5Y8/3), dense, wet, fine to medium grained sand, weak HCl reaction, clay lense (visual)
									-49.4 — 121.0
									FAT CLAY with sand (CH), light gray (5Y7/2), mottled brownish yellow (10YR6/6), very stiff, moist, fine to medium grained sand, weak HCl reaction, carbonate nodules
-56.9	128.5								
		7	8	11	19	SS-26			
									-61.9 — 133.5
									Sandy LEAN CLAY (CL), light gray (2.5Y7/1), moist, fine to medium grained sand, no to weak HCl reaction, carbonate nodules 138.5ft: split sample: SS-27A from 138.5-139.5ft and SS-27B from 139.5-140.0ft
-66.9	138.5								
		9	8	19	27	SS-27A/B			-67.4 — 139.0
									Clayey SAND (SC), pale yellow (5Y8/2), very firm, moist, fine to medium grained sand, weak HCl reaction
-76.9	148.5								-76.9 — 148.5
		26	25	50/0.5	75/1.0	SS-28			Silty, clayey SAND (SC-SM), pale yellow (5Y8/2), very dense, moist to wet, fine to coarse grained sand, fine gravel, weak HCl reaction
									-78.4 — 150.0
									Boring Terminated at Elevation -78.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST J. Moore
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2321UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 71.8 ft (NAVD88)	NORTHING 13,410,937 US ft (NAD83)	EASTING 2,610,017 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 132.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) NA
DATE STARTED 2/3/08	COMPLETED 2/5/08	CASING DEPTH: N/A	BITS USED: 6" Rollercone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
71.8					Ground Surface				71.8 0.0
									Begin sampling by Shelby tube
68.3	3.5					UD-1			3.5ft: LEAN CLAY with sand (CL), dark gray (5Y4/1), trace carbonate nodules, strong HCl reaction - 1.6ft recovery
64.3	7.5					UD-2			7.5ft: no recovery
61.8	10.0					UD-3			10.0ft: FAT CLAY (CH), very pale brown (10YR7/3), mottled brownish yellow (10YR6/6), moist, strong HCl reaction, few carbonate nodules - 1.7ft recovery
58.3	13.5					UD-4			13.5ft: FAT CLAY (CH), brownish yellow (10YR6/6), mottled light gray (10YR7/2), moist, strong HCl reaction - recovery 1.0ft
54.8	17.0					UD-5			17.0ft: LEAN CLAY (CL), brownish yellow (10YR6/6), mottled light gray (10YR7/2), moist, strong HCl reaction - 1.35ft recovery
43.3	28.5					UD-6			28.5ft: FAT CLAY (CH), brownish yellow (10YR6/6), mottled light gray (10YR7/2), moist, strong HCl reaction - 1.6ft recovery
33.3	38.5					UD-7			38.5ft: FAT CLAY (CH), very pale brown (10YR7/3), mottled brownish yellow (10YR6/6), moist, fine to coarse grained sand, strong HCl reaction - 1.55ft recovery
23.3	48.5					UD-8			48.5ft: FAT CLAY (CH), light yellowish brown (10YR6/4), mottled light gray (10YR7/2), moist, strong HCl reaction - 1.35ft recovery

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST J. Moore
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2321UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 71.8 ft (NAVD88)	NORTHING 13,410,937 US ft (NAD83)	EASTING 2,610,017 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 132.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) NA
DATE STARTED 2/3/08	COMPLETED 2/5/08	CASING DEPTH: N/A	BITS USED: 6" Rollercone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
15.7					Continued from previous page				
13.3	58.5					UD-9			Changed sample method to Pitcher barrel 58.5ft: LEAN CLAY with sand (CL), very pale brown (10YR7/3), mottled brownish yellow (10YR6/6), moist, strong HCl reaction - 1.4ft recovery
8.8	63.0					UD-10			63.0ft: Sandy LEAN CLAY (CL), light olive gray (5Y6/2), moist, weak HCl reaction - 1.6ft recovery
-16.7	88.5					UD-11			88.5ft: Clayey SAND (SC), very pale brown (10YR7/3), wet, fine sand, strong HCl reaction - 0.85ft recovery
-21.2	93.0					UD-12			93.0ft: POORLY GRADED SAND with silt (SP-SM), light yellowish brown (2.5Y6/4), wet, trace fines, fine to medium grained sand, fine gravel, strong HCl reaction (visual) - 1.2ft recovery

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Moore	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2321UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 71.8 ft (NAVD88)	NORTHING 13,410,937 US ft (NAD83)	EASTING 2,610,017 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 132.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) NA
DATE STARTED 2/3/08	COMPLETED 2/5/08	CASING DEPTH: N/A	BITS USED: 6" Rollercone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-40.4					Continued from previous page				
-46.2	118.0					UD-13			118.0ft: Clayey SAND (SC), pale brown (10YR6/3), moist, no sand, strong HCl reaction - 1.6ft recovery
									120.7ft: POORLY GRADED SAND (SP) very pale brown (10YR7/4), wet, trace fines, strong HCl reaction
									Changed sample method to Shelby tube
-56.7	128.5					UD-14			128.5ft: FAT CLAY with sand (CH), pale yellow (5Y7/3), wet, fine to coarse grained sand, fine gravel, weak HCl reaction - 0.9ft recovery
-58.7	130.5					UD-15			130.25ft: FAT CLAY with sand (CH), pale yellow (5Y8/2), moist, few carbonate nodules, fine gravel, brown and black staining, strong HCl reaction
									-60.7 132.5 130.5ft: FAT CLAY with sand (CH), light gray (2.5Y7/2), moist, fine gravel, few carbonate nodules, strong HCl reaction - 1.65ft recovery 132.5ft: FAT CLAY (CH), light gray (2.5Y7/2), moist, carbonate nodules, weak HCl reaction
									Boring Terminated at Elevation -60.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2322	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.5 ft (NAVD88)	NORTHING 13,413,529 US ft (NAD83)	EASTING 2,612,529 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/17/07	COMPLETED 12/18/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
68.5					Ground Surface				
68.5	0.0	2	2	3	5	SS-1			POORLY GRADED SAND (SP), dark brown (7.5YR3/2), loose, moist, fine grained, trace fines, organics, no HCl reaction
65.0	3.5	3	5	6	11	SS-2			Clayey SAND (SC), yellow (10YR7/6), firm, moist, fine grained, little fines, white clay nodules, strong HCl reaction
62.5	6.0	3	4	3	7	SS-3			6.0ft: brownish yellow (10YR6/6), loose, some fines, clay seam,
60.0	8.5	4	6	8	14	SS-4			POORLY GRADED SAND (SP), yellow (2.5Y7/6), firm, moist, fine grained, trace fines, no HCl reaction
57.5	11.0	6	7	7	14	SS-5A/B			Clayey SAND (SC), brownish yellow (10YR6/6), firm, mottled light gray (10YR7/1), fine grained, carbonate nodules, black staining, strong HCl reaction
55.0	13.5	6	7	8	15	SS-6			13.5ft: light gray (5Y7/2), mottled yellow (2.5Y7/8), moist, little fines, clay lenses, weak HCl reaction
50.0	18.5	8	14	11	25	SS-7			POORLY GRADED SAND (SP), brown (10YR5/3), very firm, wet, fine grained, weak HCl reaction
45.0	23.5	3	5	6	11	SS-8			FAT CLAY (CH), pale yellow (2.5Y7/3), stiff, moist, few sand, black staining, strong HCl reaction
40.0	28.5	5	6	7	13	SS-9			28.5ft: very pale brown (10YR7/4), mottled light greenish gray (10Y7/1), little sand
35.0	33.5	6	7	8	15	SS-10			33.5ft: brownish yellow (10YR6/6), mottled light gray (5Y7/1), trace gravel, carbonate nodules
30.0	38.5	9	13	30	43	SS-11			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3, 8/3), dense, moist, fine grained, few fines, clay seams, weak HCl reaction
25.0	43.5	19	20	20	40	SS-12			POORLY GRADED SAND (SP), very pale brown (10YR8/3), dense, moist, fine grained, trace fines, clay seams, weak HCl reaction
20.0	48.5	10	10	12	22	SS-13			48.5ft: very firm
15.0	53.5	23	22	17	39	SS-14			53.5ft: dense

68.5 — 0.0; 65.0 — 3.5; 60.0 — 8.5; 56.8 — 11.8; 50.0 — 18.5; 46.5 — 22.0; 30.5 — 38.0; 25.0 — 43.5

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2322	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.5 ft (NAVD88)	NORTHING 13,413,529 US ft (NAD83)	EASTING 2,612,529 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 12/17/07	COMPLETED 12/18/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
12.4					Continued from previous page				
10.0	58.5								POORLY GRADED SAND (SP), very pale brown (10YR8/3), dense, moist, fine grained, trace fines, clay seams, weak HCl reaction *(continued)*
		10	14	21	35	SS-15			58.5ft: few fines
5.0	63.5								
		14	13	14	27	SS-16			63.5ft: very firm
0.0	68.5								
		10	14	13	27	SS-17			
-5.0	73.5								
		9	11	12	23	SS-18A/B			-5.7 74.2
-10.0	78.5								Clayey SAND (SC), very pale brown (10YR8/3), very firm, wet, gravel, little fines, weak HCl reaction
		8	9	12	21	SS-19			78.5ft: light gray (2.5Y8/2), fine to coarse grained, quartz/chert gavel, clay seams
-15.0	83.5								
		25	24	49	73	SS-20			83.5ft: no recovery
-20.0	88.5								-20.0 88.5
		23	31	50/0.4	81/0.9	SS-21			POORLY GRADED SAND with clay (SP-SC), very pale yellow (2.5Y8/2), very dense, wet, fine to coarse grained, few fines, trace gravel, weak to strong HCl reaction
-25.0	93.5								
		27	50/0.5		77/1.0	SS-22			
-30.0	98.5								-30.0 98.5
		17	20	19	39	SS-23			POORLY GRADED SAND (SP), very pale yellow (2.5Y7/3), dense, wet, fine grained, trace fines, no HCl reaction
									-31.5 100.0
									Boring Terminated at Elevation -31.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPF Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2324	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 24.5 ft (NAVD88)	NORTHING 13,416,309 US ft (NAD83)	EASTING 2,612,209 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 12/15/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.5					Ground Surface				
24.5	0.0	1	1	1	2	SS-1			POORLY GRADED SAND (SP), dark yellowish brown (10YR4/4), very loose, moist, fine grained, trace fines, no HCl reaction, trace carbonate nodules, trace roots
21.0	3.5	11	11	12	23	SS-2			Sandy FAT CLAY (CH), light brownish gray (2.5Y6/2), very stiff, moist, some sand, no HCl reaction
18.5	6.0	3	5	6	11	SS-3			6.0ft: light olive gray (5Y6/2), stiff, trace black nodules
16.0	8.5	4	4	5	9	SS-4			8.5ft: light brownish gray (2.5Y6/2), few sand, clayey sand lenses
13.5	11.0	6	6	8	14	SS-5			Clayey SAND (SC), light brownish gray (2.5Y6/2), firm, moist, fine grained, some fines, no HCl reaction
11.0	13.5	5	8	10	18	SS-6			FAT CLAY with sand (CH), light gray (2.5Y7/2), very stiff, moist, strong HCl reaction, trace carbonate nodules, trace orange staining, sand content increases with depth
8.5	16.0								Clayey SAND (SC), light brownish gray (2.5Y6/2), dense, wet, fine grained, some fines, strong HCl reaction
4.8	19.7	15	13	22	35	SS-7			
-0.2	24.7	16	24	26	50	SS-8			POORLY GRADED SAND (SP), light yellowish brown (2.5Y6/3), dense, wet, fine to coarse grained, trace fines, weak HCl reaction, trace chert
-5.2	29.7	4	8	8	16	SS-9			POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y6/2), firm, wet, coarse grained, few fines, weak HCl reaction, trace chert gravel, trace carbonate nodules
-10.2	34.7	3	10	13	23	SS-10A/B			34.7ft: light gray (10YR7/2), large gravel layer
-11.0	35.5								POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), very firm, wet, fine grained, trace fines, weak HCl reaction
-15.2	39.7	8	14	12	26	SS-11			39.7ft: light brownish gray (10YR7/2), some gravel
-20.2	44.7	10	13	16	29	SS-12			44.7ft: light gray (10YR7/2), fine to coarse grained, trace gravel, trace chert
-25.2	49.7	18	24	26	50	SS-13			49.7ft: light brownish gray (2.5YR6/2), dense, fine grained, strong HCl reaction
-30.2	54.7	7	15	22	37	SS-14			54.7ft: light yellowish brown (2.5Y6/3)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2324	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 24.5 ft (NAVD88)	NORTHING 13,416,309 US ft (NAD83)	EASTING 2,612,209 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 12/15/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.6					Continued from previous page				
									POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), very firm, wet, fine grained, trace fines, weak HCl reaction *(continued)*
-35.2	59.7	14	16	15	31	SS-15			59.7ft: coarse grained, weak HCl reaction, trace chert nodules
-40.2	64.7	16	18	20	38	SS-16			64.7ft: light gray (2.5Y7/2), strong to weak HCl reaction, trace chert gravel
-45.2	69.7	16	12	11	23	SS-17			69.7ft: very firm
									-48.5 — 73.0 FAT CLAY with sand (CH), light yellowish brown (2.5Y6/4), to light gray (5Y7/2), stiff, moist, little sand, no HCl reaction, trace carbonate nodules
-50.2	74.7	5	6	6	12	SS-18			
-55.2	79.7	14	30	40	70	SS-19			-55.2 — 79.7 POORLY GRADED SAND with clay (SP-SC), gray (5Y6/1), very dense, wet, fine grained, few fines, strong HCl reaction, trace chert nodules
-60.2	84.7	11	11	20	31	SS-20			-60.2 — 84.7 Clayey SAND (SC), light gray (2.5Y7/2), dense, wet, fine grained, some fines, strong HCl reaction, trace carbonate nodules
									89.7ft: few fines
-65.2	89.7	28	18	19	37	SS-21A/B			-65.6 — 90.1 FAT CLAY (CH), light brownish gray (2.5Y6/2), hard, moist, few to little sand, strong HCl reaction, trace carbonate nodules
-70.2	94.7	6	6	7	13	SS-22			94.7ft: light gray (2.5Y7/2), stiff, some sand, weak HCl reaction
-75.2	99.7	8	8	9	17	SS-23A/B			100.3ft: light olive gray (5Y6/2), very stiff, few sand
									-83.5 — 108.0 POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y6/2), mottled olive yellow (2.5Y6/8), dense, wet, fine grained, few fines, no HCl reaction, trace carbonate nodules
-85.2	109.7	17	18	22	40	SS-24			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2324	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 24.5 ft **(NAVD88)**	**NORTHING** 13,416,309 **US ft (NAD83)**	**EASTING** 2,612,209 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 151.2 ft	**DRILL MACHINE** CME-550	**DRILLER: L. Carter/C. Hayden**	**HAMMER (ID)** 140 lb. Auto (MEC 03)
DATE STARTED 12/15/07	**COMPLETED** 12/17/07	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-87.7					Continued from previous page				
									POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y6/2), mottled olive yellow (2.5Y6/8), dense, wet, fine grained, few fines, no HCl reaction, trace carbonate nodules *(continued)*
-95.2	119.7								-95.2 / 119.7
		14	22	27	49	SS-25			POORLY GRADED SAND (SP), light brownish gray (10YR6/2), dense, wet, fine grained, trace fines, no to weak HCl reaction
-105.2	129.7								
		17	23	29	52	SS-26			129.7ft: very dense
									-113.5 / 138.0
-115.2	139.7								FAT CLAY (CH), light gray (5Y7/1), mottled brownish yellow (10YR6/8), very stiff, moist, few sand, strong HCl reaction, trace carbonate nodules
		14	14	14	28	SS-27			
-125.2	149.7								
		9	10	12	22	SS-28			149.7ft: greenish gray (10Y6/1), trace sand
									-126.7 / 151.2
									Boring Terminated at Elevation -126.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [signature] Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2331	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 69.4 ft (NAVD88)	NORTHING 13,409,863 US ft (NAD83)	EASTING 2,612,279 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.1 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/7/08	COMPLETED 1/8/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
69.4					Ground Surface				69.4 / 0.0
69.4	0.0	4	9	9	18	SS-1			FAT CLAY (CH), black (2.5Y2.5/1), to gray (2.5Y5/1), very stiff, moist, few sand, no HCl reaction, organics, trace roots
65.9	3.5	16	14	13	27	SS-2			3.5ft: gray (10YR5/1), trace sand, strong HCl reaction, trace carbonate nodules
63.4	6.0	5	7	10	17	SS-3			6.0ft: light brownish gray (2.5Y6/2), little sand, trace black staining
60.9	8.5	8	10	11	21	SS-4			8.5ft: gray (2.5Y6/1), to brownish yellow (10YR6/6), few sand, massive and nodular carbonate
58.4	11.0	8	9	10	19	SS-5			
55.9	13.5	6	7	11	18	SS-6			13.5ft: yellowish brown (10YR5/8), mottled light olive gray (5Y6/2), trace sand
49.8	19.6	12	17	17	34	SS-7 A/B			49.5 / 19.9 Clayey SAND (SC), pale brown (10YR6/3), dense, moist, fine grained, some fines, strong HCl reaction
44.8	24.6	13	17	32	49	SS-8			44.8 / 24.6 Sandy FAT CLAY (CH), pale brown (10YR6/3), hard, moist, some sand, strong HCl reaction, trace carbonate nodules
39.8	29.6	5	6	10	16	SS-9			29.6ft: light olive gray (5Y6/2), very stiff, trace sand, weak HCl reaction in clay, trace black veining, trace carbonate grains
34.8	34.6	7	9	16	25	SS-10			34.6ft: strong HCl reaction, some sand
29.8	39.6	6	10	15	25	SS-11			39.6ft: light yellowish brown (2.5Y6/3)
24.8	44.6	6	6	10	16	SS-12			44.6ft: yellowish brown (10YR5/8), mottled light greenish gray (10Y7/1), trace sand
19.8	49.6	6	6	9	15	SS-13			49.6ft: light yellowish brown (10YR6/4), stiff, trace carbonate nodules
14.8	54.6	6	8	8	16	SS-14 A/B			54.6ft: very stiff, few sand 14.4 / 55.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2331	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 69.4 ft (NAVD88)	NORTHING 13,409,863 US ft (NAD83)	EASTING 2,612,279 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.1 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/7/08	COMPLETED 1/8/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
13.3					Continued from previous page				
9.8	59.6								Clayey SAND (SC), light yellowish brown (10YR6/4), firm, wet, fine grained, little fines, strong HCl reaction *(continued)*
4.8	64.6	6	7	9	16	SS-15			FAT CLAY (CH), yellowish brown (10YR5/6), grading to light olive gray (5Y6/2), very stiff, moist, trace sand, strong HCl reaction
-0.2	69.6	6	6	6	12	SS-16			64.6ft: light yellowish brown (2.5Y6/4), stiff, few to little sand
									2.9 — 66.5 POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), dense, wet, fine to coarse grained, trace fines, interbedded with fat clay, trace chert nodules
-5.2	74.6	13	15	26	41	SS-17			
-10.2	79.6	9	7	10	17	SS-18			47.6ft: light yellowish brown (10YR6/4), firm, strong HCl reaction
-15.2	84.6	9	13	15	28	SS-19			-10.2 — 79.6 POORLY GRADED SAND with clay (SP-SC), light yellowish brown (10YR6/4), very firm, wet, few fines, fine to coarse grained, strong HCl reaction, trace chert nodules
-20.2	89.6	15	29	36	65	SS-20			84.6ft: very dense
-25.2	94.6	17	19	20	39	SS-21			-20.2 — 89.6 POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), dense, wet, fine to coarse grained, trace fines, strong HCl reaction, trace chert nodules and pebbles, trace carbonate nodules 92.0ft: probable gravel bed based on bit chatter and minor loss in circulation
-30.2	99.6	11	28	30	58	SS-22			-25.2 — 94.6 POORLY GRADED SAND with clay and gravel (SP-SC), pale yellow (2.5Y7/3), very dense, wet, fine to coarse grained, few to little gravel, few fines, strong HCl reaction, gravel consists of carbonate and chert
		15	31	49	80	SS-23			-30.2 — 99.6 Clayey SAND (SC), light gray (2.5Y7/2), very dense, wet, fine grained, some fines, strong HCl reaction
									-31.7 — 101.1 Boring Terminated at Elevation -31.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2332	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 78.7 ft (NAVD88)	NORTHING 13,414,435 US ft (NAD83)	EASTING 2,603,736 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/ C Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/5/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
78.7					Ground Surface				78.7 / 0.0
78.7	0.0	2	2	2	4	SS-1			Silty SAND (SM), very dark grayish brown (10YR3/2), very loose, wet, some sand, no HCl reaction, organics, trace roots
76.7	2.0								
76.2	2.5								Sandy FAT CLAY (CH), grayish brown (2.5Y5/2), mottled reddish yellow (7.5YR6/8), soft, moist, some sand, low HCl reaction
75.2	3.5	9	12	16	28	SS-2			Silty SAND (SM), grayish brown (2.5Y5/2), mottled reddish yellow (7.5YR6/8), very firm, no HCl reaction, trace orange mottling
72.7	6.0	9	9	11	20	SS-3			6.0ft: very pale brown (10YR7/4), firm, no HCl reaction, trace orange mottling
70.2	8.5	7	6	5	11	SS-4			8.5ft: light gray (2.5Y7/2), mottled strong brown (7.5YR5/8)
67.7	11.0	6	9	8	17	SS-5			11.0ft: light yellowish brown (2.5Y6/3), mottled strong brown (7.5YR5/8)
65.2	13.5	10	13	15	28	SS-6 A/B			13.5ft: grading to poorly graded sand with clay
64.4	14.3								POORLY GRADED SAND (SP), very pale brown (10YR8/2), very firm, dry, fine grained, trace fines, no HCl reaction
60.0	18.7								POORLY GRADED SAND with clay (SP-SC), light yellowish brown (2.5Y6/3), very dense, wet, fine grained, few fines, no HCl reaction
59.0	19.7	17	18	34	52	SS-7			
56.7	22.0								FAT CLAY (CH), light greenish gray (10Y7/1), to white (8/1), very stiff, moist, trace sand, weak HCl reaction, massive and nodular carbonate
54.0	24.7	12	12	12	24	SS-8			
49.0	29.7	5	8	14	22	SS-9			29.7ft: greenish gray (10Y6/1), mottled yellowish brown (10YR5/8), trace carbonate, trace black veining
44.0	34.7	13	11	13	24	SS-10			34.7ft: light greenish gray (10Y7/1), mottled strong brown (7.5YR5/8), few massive and nodular carbonate
39.0	39.7	15	23	24	47	SS-11 A/B			
38.7	40.0								POORLY GRADED SAND with clay (SP-SC), light yellowish brown (2.5Y6/3), dense, wet, fine grained, few fines, no HCl reaction
34.0	44.7	19	25	43	68	SS-12			44.7ft: olive yellow (2.5Y6/1), to strong brown (7.5YR5/6), very dense, weak HCl reaction, trace carbonate
29.0	49.7	7	8	11	19	SS-13			
29.0	49.7								FAT CLAY with sand (CH), strong brown (7.5YR5/8), mottled greenish gray (10Y6/1), very stiff, moist, few to little fine sand, weak HCl reaction, trace carbonate
24.0	54.7	11	20	22	42	SS-14 A/B			
23.5	55.2								

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2332	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 78.7 ft (NAVD88)	NORTHING 13,414,435 US ft (NAD83)	EASTING 2,603,736 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/ C Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/5/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
22.6					Continued from previous page				
19.0	59.7								POORLY GRADED SAND with clay (SP-SC), light yellowish brown (2.5Y6/4), dense, wet, fine sand, few fines, weak HCl reaction *(continued)*
14.0	64.7	8	9	12	21	SS-15			FAT CLAY (CH), greenish gray (10Y6/1), very stiff, moist, trace fine sand, strong HCl reaction, trace carbonate nodules
9.0	69.7	7	10	12	22	SS-16			64.7ft: light gray (10YR7/2), little sand, no HCl reaction
4.0	74.7	9	11	14	25	SS-17			69.7ft: light yellowish brown (2.5Y6/3), some sand
-1.0	79.7	6	9	10	19	SS-18			POORLY GRADED SAND with clay (SP-SC), light yellowish brown (2.5Y6/2), firm, wet, fine grained, few fines, no HCl reaction
-6.0	84.7	13	11	10	21	SS-19			Sandy FAT CLAY (CH), light olive gray (5Y6/2), trace dark red (2.5YR3/6), very stiff, some fine sand, no HCl reaction
-11.0	89.7	8	9	11	20	SS-20			Clayey SAND (SC), light yellowish brown (2.5Y6/3), firm, some fines, no HCl reaction
-16.0	94.7	9	11	12	23	SS-21			POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y7/2), very firm, wet, fine to coarse grained, few fines
-21.0	99.7	14	20	25	45	SS-22			FAT CLAY with sand (CH), greenish gray (10Y6/1), mottled reddish yellow (7.5YR6/8), hard, moist, little fine sand, strong HCl reaction, massive and nodular carbonate
		50/0.5			50/0.5	SS-23 A/B			POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y7/2), mottled olive yellow (2.5Y6/8), very dense, moist to wet, few fines, strong HCl reaction in sand, massive and nodular carbonate

19.0 — 59.7; -14.3 — 93.0; -21.2 — 99.9; 21.5 — 100.2

Boring Terminated at Elevation -21.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDK Date 6-12-08

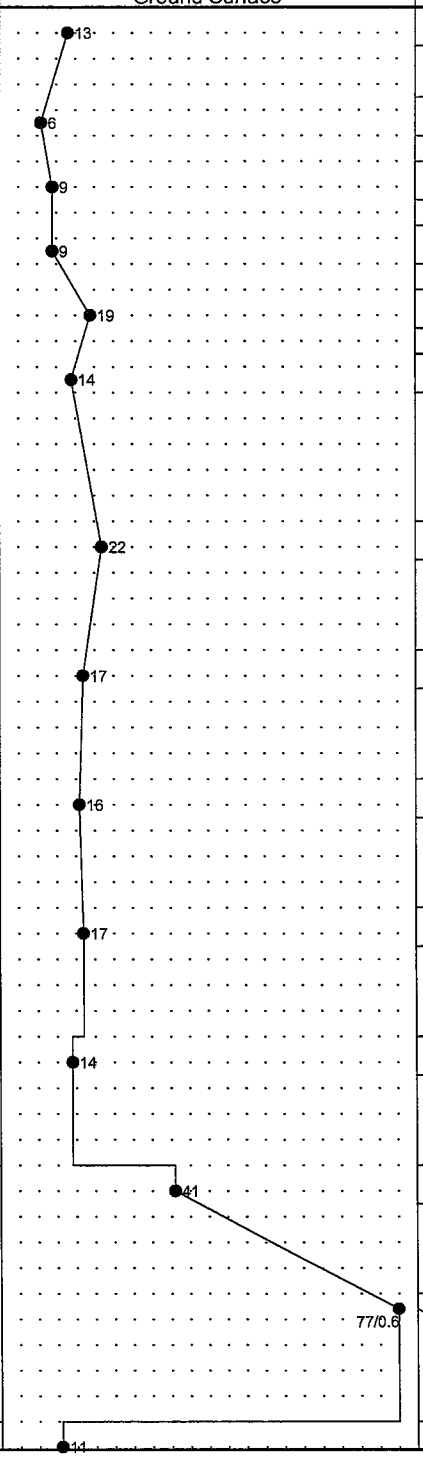
Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**
BORING NO. B-2333 / **DRILL METHOD:** Mud Rotary	**SAMPLE METHODS:** SPT	0 HR. ND
GROUND SURFACE ELEV. 76.1 ft (NAVD88) / **NORTHING** 13,398,865 US ft (NAD83)	**EASTING** 2,603,982 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.5 ft / **DRILL MACHINE** CME-750	**DRILLER:** G. Bray/T. Bray/T. Ellerson	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 12/18/07 / **COMPLETED** 12/19/07	**CASING DEPTH:** N/A	**BITS USED:** 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	SOIL AND ROCK DESCRIPTION
76.1						Ground Surface
76.1	0.0	3	5	8	SS-1	FAT CLAY (CH), very dark gray (10YR3/1), stiff, moist, fine grained, trace sand, strong HCl reaction, organics
72.6	3.5	2	3	3	SS-2	3.5ft: grayish brown (10YR5/2), firm
70.1	6.0	3	4	5	SS-3	6.0ft: light yellowish brown (10YR6/4), stiff
67.6	8.5	4	4	5	SS-4	8.5ft: few sand
65.1	11.0	5	8	11	SS-5	11.0ft: mottled light gray (10YR7/1), very stiff, carbonate nodules
62.6	13.5	5	6	8	SS-6	13.5ft: stiff
56.1	20.0	9	10	12	SS-7	20.0ft: pale brown (10YR6/3), very stiff, little sand
51.1	25.0	5	7	10	SS-8	25.0ft: brownish yellow (10YR6/6), few sand
46.1	30.0	4	6	10	SS-9	
41.1	35.0	5	7	10	SS-10	
36.1	40.0	5	6	8	SS-11	LEAN CLAY with sand (CL), light gray (10YR7/2), stiff, moist, little sand, carbonate nodules
31.1	45.0	19	10	31	SS-12	Clayey SAND (SC), pale brown (10YR6/3), dense, moist, fine grained, little fines, strong HCl reaction
26.1	50.0	27	50/0.1		SS-13	50.0ft: very dense
21.1	55.0	4	5	6	SS-14	

BLOWS PER FOOT (0, 20, 40, 60, 80, 100)



EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2333	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.1 ft (NAVD88)	NORTHING 13,398,865 US ft (NAD83)	EASTING 2,603,982 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/18/07	COMPLETED 12/19/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
20.0					Continued from previous page				
									FAT CLAY (CH), gray (10YR6/1), stiff, moist, fine grained, few sand, weak HCl reaction, carbonate nodules *(continued)*
16.1	60.0								
		4	6	9	15	SS-15			60.0ft: trace sand, strong HCl reaction
11.1	65.0								
		7	9	13	22	SS-16			65.0ft: light gray (10YR7/1), very stiff, little sand, no HCl reaction, carbonate nodules, ferrous staining
6.1	70.0								
		34	34	19	53	SS-17			70.0ft: hard, strong HCl reaction
1.1	75.0								1.1 — 75.0
		17	32	50/0.1	82/0.6	SS-18			Clayey SAND (SC), light gray (10YR7/1), very dense, moist, medium grained, little fines, no HCl reaction
-3.9	80.0								-3.9 — 80.0
		7	10	13	23	SS-19			FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, moist, little sand, weak to no HCl reaction, carbonate nodules
-8.9	85.0								
		9	11	21	32	SS-20			85.0ft: hard
-13.9	90.0								
		12	11	19	30	SS-21			90.0ft: very stiff
-18.9	95.0								
		8	12	17	29	SS-22			95.0ft: mottled brownish yellow (10YR6/6), few sand, strong HCl reaction
-23.9	100.0								
		9	11	14	25	SS-23			100.0ft: light yellowish brown (10YR6/4)
									-25.4 — 101.5
									Boring Terminated at Elevation -25.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

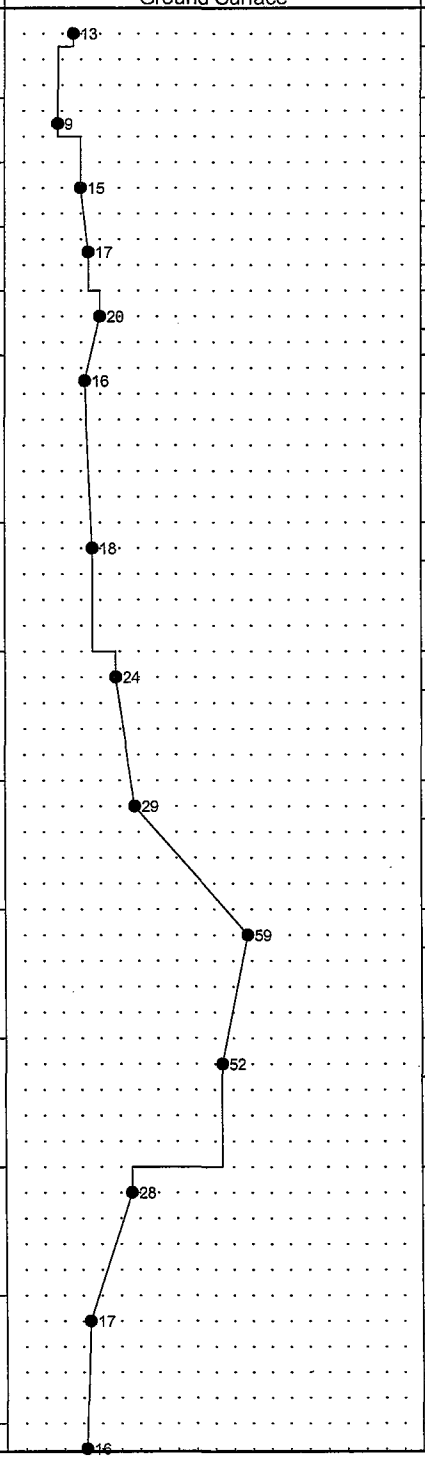
Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2334	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.9 ft (NAVD88)	NORTHING 13,400,635 US ft (NAD83)	EASTING 2,606,131 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 61.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 12/20/07	COMPLETED 12/20/07	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	SOIL AND ROCK DESCRIPTION
71.9						Ground Surface
71.9	0.0	6	7	6	SS-1	Silty SAND (SM), very dark gray (10YR3/1), firm, moist, little fines, no HCl reaction, organics (70.4, 1.5)
68.4	3.5					Sandy LEAN CLAY (CL), light gray (10YR7/1), stiff, moist, strong HCl reaction, carbonate nodules
65.9	6.0	3	4	5	SS-2	(66.9, 5.0) Clayey SAND (SC), light gray (10YR7/1), firm, moist, strong HCl reaction, carbonate nodules
63.4	8.5	4	6	9	SS-3	
60.9	11.0	6	8	9	SS-4	(60.9, 11.0)
58.4	13.5	7	9	11	SS-5	FAT CLAY (CH), light gray (10Yr7/1), very stiff, moist, strong HCl reaction, carbonate nodules, ferrous staining
51.9	20.0	7	8	8	SS-6	
46.9	25.0	4	6	12	SS-7	20.0ft: becomes more sandy with depth, no HCl reaction, ferrous staining (46.9, 25.0)
41.9	30.0	7	11	13	SS-8	Clayey SAND (SC), light gray (10YR7/1), very firm, moist, fine grained, little fines, no HCl reaction
36.9	35.0	7	12	17	SS-9	
31.9	40.0	22	22	37	SS-10	35.5ft: pale brown (10YR6/3), very dense, strong HCl reaction
26.9	45.0	17	25	27	SS-11	40.0ft: brownish yellow (10YR6/6) (26.9, 45.0)
21.9	50.0	11	11	17	SS-12	FAT CLAY with sand (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), very stiff, moist, little sand, strong HCl reaction
16.9	55.0	4	7	10	SS-13	50.0ft: few sand
		5	7	9	SS-14	55.0ft: gray (10YR5/1), weak HCl reaction



EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2334	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 71.9 ft **(NAVD88)**	**NORTHING** 13,400,635 **US ft (NAD83)**	**EASTING** 2,606,131 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 61.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 12/20/07	**COMPLETED** 12/20/07	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
15.7					Continued from previous page				
									FAT CLAY with sand (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), very stiff, moist, little sand, strong HCl reaction *(continued)*
11.9	60.0	6	8	8	●16	SS-15			60.0ft: no HCl reaction
									10.4 61.5 Boring Terminated at Elevation 10.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZF Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2335	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 66.8 ft (NAVD88)	NORTHING 13,404,184 US ft (NAD83)	EASTING 2,610,412 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 61.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/7/08	COMPLETED 1/8/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
66.8					Ground Surface				66.8 — 0.0
66.8	0.0	5	7	8	15	SS-1			FAT CLAY (CH), very dark gray (10YR3/1), stiff, moist, trace sand, no HCl reaction, roots
63.3	3.5	4	7	9	16	SS-2			63.3 — 3.5 Sandy LEAN CLAY (CL), light gray (10YR7/2), very stiff, moist, no HCl reaction
60.8	6.0	5	6	9	15	SS-3			6.0ft: mottled light yellowish brown (10YR6/4), stiff
58.3	8.5	6	6	8	14	SS-4			58.8 — 8.0 Silty SAND (SM), light brownish gray (10YR6/2), firm to very firm, moist, no HCl reaction
55.8	11.0	7	12	17	29	SS-5			11.0ft: light gray (10YR7/1), very firm, moist, fine grained, little fines, no HCl reaction, ferrous staining
53.3	13.5	5	8	7	15	SS-6			13.5ft: firm
46.8	20.0	4	6	7	13	SS-7			46.8 — 20.0 FAT CLAY (CH), yellowish brown (10YR5/6), stiff, moist, few sand, weak HCl reaction
41.8	25.0	5	6	8	14	SS-8			25.0ft: light gray (10YR7/1), mottled brownish yellow (10YR6/6), strong HCl reaction
36.8	30.0	7	10	12	22	SS-9			30.0ft: light brownish gray (10YR6/2), very stiff
31.8	35.0	4	6	6	12	SS-10			35.0ft: pale brown (10YR6/3), stiff, trace sand, no HCl reaction, carbonate nodules
26.8	40.0	5	6	7	13	SS-11			40.0ft: light brownish gray (10YR6/2), few sand, weak HCl reaction
21.8	45.0	4	5	8	13	SS-12			45.0ft: yellowish brown (10YR5/6)
16.8	50.0	5	6	9	15	SS-13			50.0ft: strong HCl reaction
11.8	55.0	3	6	5	11	SS-14			55.0ft: light gray (10YR7/1)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2335	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 66.8 ft **(NAVD88)**	**NORTHING** 13,404,184 **US ft (NAD83)**	**EASTING** 2,610,412 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 61.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 1/7/08	**COMPLETED** 1/8/08	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
10.6					Continued from previous page				
6.8	60.0	4	5	6	11	SS-15			FAT CLAY (CH), yellowish brown (10YR5/6), stiff, moist, few sand, weak HCl reaction *(continued)* 5.3
									Boring Terminated at Elevation 5.3 ft 61.5

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDX Date 6-12-08
Checked By KAW Date 6·12·08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2336	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.0 ft (NAVD88)	NORTHING 13,409,474 US ft (NAD83)	EASTING 2,616,875 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 1/7/08	COMPLETED 1/8/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
68.0					Ground Surface				
68.0	0.0	3	3	3	6	SS-1			Clayey SAND (SC), dark grayish brown (10YR4/2), loose, moist, fine grained, little fines, orange and red staining, no HCl reaction, roots, clay content increases with depth
64.5	3.5	3	5	8	13	SS-2			3.5ft: light gray (2.5Y7/2), mottled red (2.5YR4/8), firm
62.0	6.0	4	6	8	14	SS-3			6.0ft: brownish yellow (10YR6/6), mottled light gray (2.5Y7/1), black staining
59.5	8.5	3	3	4	7	SS-4			POORLY GRADED SAND with clay (SP-SC), grayish brown (2.5Y5/2), loose, fine grained, few fines, no HCl reaction, carbonate nodules
57.0	11.0	3	2	3	5	SS-5			11.0ft: light yellowish brown (2.5Y6/3)
54.5	13.5	4	7	8	15	SS-6			POORLY GRADED SAND (SP), yellow (10YR7/6), firm, moist, fine grained, trace fines, no HCl reaction, lenses of clayey sand
49.5	18.5	8	8	8	16	SS-7			Clayey SAND (SC), brownish yellow (10YR6/6), firm, moist, fine to medium grained, few to little fines, no HCl reaction 21.0ft: 1.5ft thick clay layer
44.5	23.5	20	27	44	71	SS-8			POORLY GRADED SAND (SP), very pale brown (10YR8/2), very dense, moist, fine grained, no fines, weak HCl reaction
39.5	28.5	6	8	8	16	SS-9			Sandy FAT CLAY (CH), brownish yellow (10YR6/6), mottled light gray (5Y7/2), very stiff, moist, some fine sand, weak HCl reaction, carbonate nodules, black staining
34.5	33.5	8	10	7	17	SS-10			Clayey SAND (SC), pale yellow (2.5Y7/3), firm, moist, fine grained, some fines, weak HCl reaction, carbonate nodules, clay lenses, black staining
29.5	38.5	12	32	34	66	SS-11			POORLY GRADED SAND (SP), very pale brown (10YR7/4), very dense, moist, fine grained, trace fines, strong HCl reaction
24.5	43.5	15	24	41	65	SS-12			43.5ft: weak HCl reaction
19.5	48.5	16	19	31	50	SS-13			POORLY GRADED SAND with clay (SP-SC), dense, fine grained, few fines, weak HCl reaction, carbonate nodules, clay lense
14.5	53.5	5	11	16	27	SS-14			POORLY GRADED SAND (SP), pale yellow (2.5Y7/4), very firm, moist, fine grained, no fines, weak HCl reaction

68.0 — 0.0
59.5 — 8.5
55.0 — 13.0
51.3 — 16.8
45.5 — 22.5
40.5 — 27.5
35.8 — 32.3
32.5 — 35.5
21.3 — 46.8
16.5 — 51.5

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2336	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.0 ft (NAVD88)	NORTHING 13,409,474 US ft (NAD83)	EASTING 2,616,875 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 1/7/08	COMPLETED 1/8/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
11.9					Continued from previous page				
9.5	58.5								POORLY GRADED SAND (SP), pale yellow (2.5Y7/4), very firm, moist, fine grained, no fines, weak HCl reaction *(continued)*
		7	8	11	19	SS-15			58.5ft: very pale brown (10YR7/3), firm, trace fines
4.5	63.5								
		19	34	29	63	SS-16			63.5ft: very dense, no fines
									2.5 — 65.5
-0.5	68.5								Sandy FAT CLAY (CH), brownish yellow (10YR6/6), mottled light gray (5Y7/2), stiff, moist, some fine sand, weak HCl reaction, black staining
		5	6	9	15	SS-17			73.5ft: pale yellow (5Y8/2), very stiff, few to little fine sand, black and brown-orange staining
-5.5	73.5								
		5	14	16	30	SS-18A/B			-6.2 — 74.2
									POORLY GRADED SAND (SP), brownish yellow (10YR6/6), very firm, wet, no fines
-10.5	78.5								-10.0 — 78.0
		9	11	6	17	SS-19			77.0ft: possible 1.0ft gravel layer POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y7/3), firm, moist, fine grained, few fines
-15.5	83.5								
		15	17	30	47	SS-20			83.0ft: dense, gravel-sized to fine grained
-20.5	88.5								-20.0 — 88.0
		10	12	15	27	SS-21			POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), very firm, moist, fine grained, trace fines, trace clay seams
									-23.0 — 91.0
-25.5	93.5								FAT CLAY (CH), light gray (5Y7/1), mottled brownish yellow (10YR6/6), very stiff, moist, few fine sand, weak HCl reaction, carbonate nodules
		11	14	15	29	SS-22			-27.5 — 95.5
-30.5	98.5								Clayey SAND (SC), light gray (5Y7/1), mottled brownish yellow (10YR6/6), very firm, moist, fine grained, some fines, weak HCl reaction
		11	11	19	30	SS-23			-32.0 — 100.0
									Boring Terminated at Elevation -32.0 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2337	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 67.2 ft (NAVD88)	NORTHING 13,407,263 US ft (NAD83)	EASTING 2,614,846 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 1/4/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
67.2					Ground Surface				
67.2	0.0	2	3	3	6	SS-1			POORLY GRADED SAND with clay (SP-SC), very dark brown (10YR2/2), loose, moist, fine grained, few fines, organics, roots, no HCl reaction
63.7	3.5	3	3	3	6	SS-2			Sandy LEAN CLAY (CL), very dark grayish brown (10YR3/2), mottled pale yellow (2.5Y8/2), firm, moist, strong HCl reaction, trace to no organics
61.2	6.0	3	3	4	7	SS-3			Clayey SAND (SC), light gray (2.5Y7/2), loose, moist, carbonate nodules, weak HCl reaction
58.7	8.5	3	3	4	7	SS-4			LEAN CLAY with sand (CL), light brownish gray (10YR6/2), mottled brownish yellow (10YR6/6), firm, moist, strong HCl reaction, black staining
56.2	11.0	3	6	8	14	SS-5			11.0ft: pale yellow (10Y8/2), mottled brownish yellow (5Y6/8), stiff, no to weak HCl reaction in sand, strong HCl reaction in clay
53.7	13.5	4	6	8	14	SS-6			Sandy LEAN CLAY (CL), brownish yellow (10YR6/6), mottled light gray (5Y7/2), stiff, moist, some fine sand, weak HCl reaction on sand and clay, carbonate nodules, black staining, roots/organics
48.7	18.5	5	7	8	15	SS-7			Clayey SAND (SC), brownish yellow (10YR6/6), mottled light gray (5Y7/2), firm, moist, fine grained, some fines occuring as clayey lenses, weak HCl reaction, black staining, carbonate nodules
43.7	23.5	7	11	7	18	SS-8			
38.7	28.5	3	6	7	13	SS-9			Sandy FAT CLAY (CH), pale brown (10YR6/3), stiff, moist, some fine sand, weak HCl reaction, carbonate nodules, black staining
33.7	33.5	6	10	11	21	SS-10			33.5ft: light gray (5Y7/2), mottled light brownish yellow (10YR6/6), very stiff
28.7	38.5	6	8	9	17	SS-11			38.5ft: brownish yellow (10YR6/6), mottled light gray (5Y7/2)
23.7	43.5	5	8	10	18	SS-12			43.5ft: brownish yellow (10YR6/6), few to little sand
18.7	48.5	6	7	8	15	SS-13			48.5ft: very pale brown (10YR7/4), stiff
13.7	53.5	6	7	7	14	SS-14			53.5ft: some fine sand, more defined clay and sand lenses

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2337	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 67.2 ft (NAVD88)	NORTHING 13,407,263 US ft (NAD83)	EASTING 2,614,846 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: J. Warren/J. Alexander	HAMMER (ID) 140 lb. Auto (MEC 12)
DATE STARTED 1/4/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
11.1					Continued from previous page				
8.7	58.5								9.2 — 58.0
		5	4	4	8	SS-15			Clayey SAND (SC), yellow (10YR7/6), loose, moist, fine grained, some fines, lenses of sand, lenses of clay, weak HCl reaction
3.7	63.5								
		6	8	17	25	SS-16			63.5ft: very pale brown (10YR7/4), very firm, few to little fines, lenses of clay within poorly graded sand
									1.7 — 65.5
-1.3	68.5								POORLY GRADED SAND (SP), very pale brown (10YR8/3), very dense, moist, fine grained, no fines, weak HCl reaction
		24	48	49	97	SS-17			
-6.3	73.5								
		25	32	37	69	SS-18			77.0ft: possible 6-inch gravel layer
									-10.3 — 77.5
-11.3	78.5								Clayey SAND (SC), pale yellow (2.5Y7/3), firm, moist, fine to gravel-sized particles, few to little fines, weak HCl reaction
		3	4	7	11	SS-19			
-16.3	83.5								
		50/0.0			50/0.0	SS-20			83.5: no recovery, possible gravel
									-18.3 — 85.5
-21.3	88.5								POORLY GRADED SAND (SP), pale yellow (2.5Y7/3), dense, moist, fine to medium grained, no fines, weak HCl reaction
		16	18	19	37	SS-21			
-26.3	93.5								
		13	13	19	32	SS-22			93.5ft: fine to coarse grained, trace gravel
-31.3	98.5								
		13	13	18	31	SS-23			98.5ft: some fine subrounded gravel
									-32.8 — 100.0
									Boring Terminated at Elevation -32.8 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2338	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.2 ft (NAVD88)	NORTHING 13,398,221 US ft (NAD83)	EASTING 2,606,386 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.7 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 1/9/08	COMPLETED 1/9/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
68.2					Ground Surface				68.2 / 0.0
68.2	0.0	3	5	8	13	SS-1			FAT CLAY (CH), very dark gray (10YR3/1), stiff, moist, trace sand, no HCl reaction, roots
64.7	3.5	4	6	6	12	SS-2			3.5ft: dark gray (10YR4/1), few sand
62.2	6.0	5	9	14	23	SS-3			6.0ft: light brownish gray (10YR6/2), very stiff, little sand
59.7	8.5	8	12	11	23	SS-4			
57.2	11.0	6	9	10	19	SS-5			11.0ft: strong HCl reaction
54.7	13.5	10	16	22	38	SS-6			54.7 / 13.5 — Clayey SAND (SC), pale brown (10YR6/3), dense, dry, fine grained, little fines, strong HCl reaction
48.0	20.2	15	25	36	61	SS-7			20.2ft: very dense
43.0	25.2	21	19	12	31	SS-8			25.2ft: dense, wet, medium grained, few fines, no HCl reaction
38.0	30.2	4	7	8	15	SS-9			38.0 / 30.2 — FAT CLAY (CH), brownish yellow (10YR6/6), stiff, moist, few sand, strong HCl reaction
33.0	35.2	5	6	8	14	SS-10			35.2ft: yellowish brown (10YR5/8)
28.0	40.2	3	4	7	11	SS-11			40.2ft: very pale brown (10YR7/3)
23.0	45.2	6	8	9	17	SS-12			45.2ft: very stiff
18.0	50.2	5	16	30	46	SS-13			18.0 / 50.2 — POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, medium to coarse grained, trace to few fines, weak HCl reaction
13.0	55.2	21	17	15		SS-14			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2338	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 68.2 ft (NAVD88)	NORTHING 13,398,221 US ft (NAD83)	EASTING 2,606,386 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.7 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 1/9/08	COMPLETED 1/9/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
12.0					Continued from previous page				
					32				POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, medium to coarse grained, trace to few fines, weak HCl reaction *(continued)*
8.0	60.2	13	16	19	35	SS-15			60.2ft: brown (10YR5/3), moist, trace fines, strong HCl reaction, carbonate nodules
3.0	65.2	6	9	11	20	SS-16			3.0 — 65.2 FAT CLAY with sand (CH), pale brown (10YR6/3), very stiff, moist, little sand, strong HCl reaction
-2.1	70.2	4	4	7	11	SS-17			70.2ft: mottled brownish yellow (10YR6/6), stiff, strong HCl reaction, trace sand
-7.1	75.2	5	8	9	17	SS-18			75.2ft: very stiff, little sand, carbonate nodules
-12.1	80.2	6	10	12	22	SS-19			80.2ft: weak HCl reaction
-17.1	85.2	8	13	16	29	SS-20			-17.1 — 85.2 POORLY GRADED SAND (SP), light gray (10YR7/1), very firm, wet, fine grained, trace fines, weak HCl reaction
-22.1	90.2	4	13	11	24	SS-21			-22.1 — 90.2 FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, moist, little sand, no HCl reaction, interbedded sand layer
-27.1	95.2	7	8	9	17	SS-22			95.2ft: mottled yellowish brown (10YR5/8), few sand, carbonate nodules
-32.1	100.2	9	9	13	22	SS-23			100.2ft: strong HCl reaction
									-33.6 — 101.7 Boring Terminated at Elevation -33.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

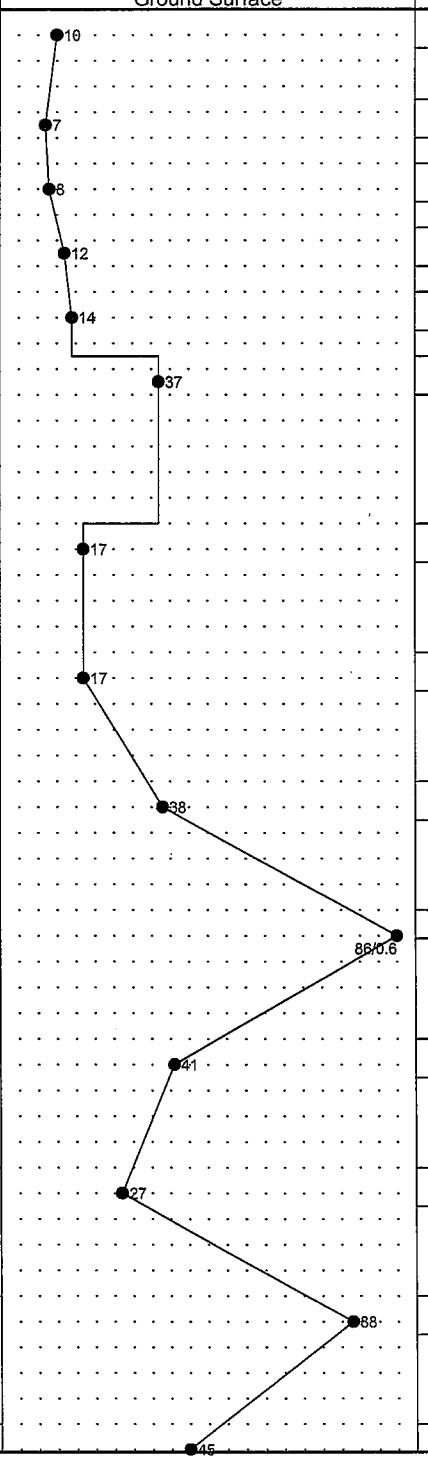
GEOTECHNICAL BORING LOG

Prepared By JPF Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2340	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 68.1 ft **(NAVD88)**	**NORTHING** 13,400,763 **US ft (NAD83)**	**EASTING** 2,609,813 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 61.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 1/2/08	**COMPLETED** 1/2/08	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	SOIL AND ROCK DESCRIPTION
68.1						Ground Surface
68.1	0.0	6	6	4	SS-1	FAT CLAY (CH), very dark gray (10YR3/1), stiff, moist, few sand, no HCl reaction, roots, ferrous staining
64.6	3.5	2	3	4	SS-2	3.5ft: yellowish brown (10YR5/6), firm, strong HCl reaction
62.1	6.0	3	4	4	SS-3	6.0ft: very pale brown (10YR7/3)
59.6	8.5	2	5	7	SS-4	8.5ft: light gray (10YR7/1), stiff, little sand
57.1	11.0	3	4	10	SS-5	
54.6	13.5	6	15	22	SS-6	Clayey SAND (SC), pale brown (10YR6/3), dense, moist, fine to medium grained, little fines, no HCl reaction
48.1	20.0	3	8	9	SS-7	FAT CLAY (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), very stiff, moist, few sand, strong to no HCl reaction
43.1	25.0	5	9	8	SS-8	
38.1	30.0	8	17	21	SS-9	30.0ft: hard, little sand, strong HCl reaction
33.1	35.0	23	36	50/0.1	SS-10	35.0ft: carbonate nodules
28.1	40.0	14	18	23	SS-11	40.0ft: light yellowish brown (10YR6/4)
23.1	45.0	7	12	15	SS-12	45.0ft: gray (10YR6/1), very stiff, few sand, no HCl reaction
18.1	50.0	25	38	50	SS-13	50.0ft: pale brown (10YR6/3), hard, moist, little sand, strong to weak HCl reaction
13.1	55.0	18	28	17	SS-14	55.0ft: light gray (10YR7/1)



68.1 — 0.0

54.6 — 13.5

48.1 — 20.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2340	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 68.1 ft **(NAVD88)**	**NORTHING** 13,400,763 **US ft (NAD83)**	**EASTING** 2,609,813 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 61.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 1/2/08	**COMPLETED** 1/2/08	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
12.0					Continued from previous page				
									FAT CLAY (CH), light gray (10YR7/1), mottled light yellowish brown (10YR6/4), very stiff, moist, few sand, strong to no HCl reaction *(continued)*
8.1	60.0								
		4	6	8	14	SS-15			60.0ft: stiff
									6.6 — 61.5
									Boring Terminated at Elevation 6.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST B. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2344	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.8 ft (NAVD88)	NORTHING 13,404,998 US ft (NAD83)	EASTING 2,615,527 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 61.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/7/08	COMPLETED 1/7/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
65.8					Ground Surface				65.8 / 0.0
65.8	0.0	4	4	5	9	SS-1			FAT CLAY (CH), black (10YR2/1), stiff, moist, few sand, no HCl reaction
62.3	3.5	4	4	6	10	SS-2			3.5ft: gray (10YR6/1), mottled black (10YR2/1)
59.8	6.0	4	6	8	14	SS-3			6.0ft: light gray (10YR7/1)
57.3	8.5	6	6	7	13	SS-4			8.5ft: little sand, ferrous staining
54.8	11.0	4	5	6	11	SS-5			11.0ft: mottled brownish yellow (10YR6/6), weak HCl reaction
52.3	13.5	5	8	8	16	SS-6			13.5ft: very stiff, strong HCl reaction
45.8	20.0	7	10	11	21	SS-7			20.0ft: little sand
40.8	25.0	5	7	11	18	SS-8			25.0ft: brownish yellow (10YR6/6), trace sand, carbonate nodules
35.8	30.0	3	5	7	12	SS-9			30.0ft: light gray (10YR7/1), stiff, mottled brownish yellow (10YR6/6), few to little sand
30.8	35.0	4	5	8	13	SS-10			
25.8	40.0	4	6	7	13	SS-11			
20.8	45.0	4	6	10	16	SS-12			45.0ft: light yellowish brown (10YR6/4), very stiff
15.8	50.0	5	6	9	15	SS-13			50.0ft: light gray (10YR7/1), stiff
10.8	55.0	23	35	42	77	SS-14			10.8 / 55.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**	
BORING NO. B-2344	**DRILL METHOD:** Mud Rotary	**SAMPLE METHODS:** SPT	**0 HR.** ND
GROUND SURFACE ELEV. 65.8 ft (NAVD88)	**NORTHING** 13,404,998 US ft (NAD83)	**EASTING** 2,615,527 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 61.5 ft	**DRILL MACHINE** CME-750	**DRILLER:** G. Bray/T. Bray/T. Ellerson	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 1/7/08	**COMPLETED** 1/7/08	**CASING DEPTH:** N/A	**BITS USED:** 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
9.7					Continued from previous page				
									POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), very dense, moist, medium grained, few fines, weak HCl reaction *(continued)*
5.8	60.0								5.8 — 60.0
		5	12	14	●26	SS-15			POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, wet, medium to coarse grained, trace fines, no HCl reaction
									4.3 — 61.5
									Boring Terminated at Elevation 4.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**
BORING NO. B-2346 / **DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 67.1 ft **(NAVD88)** / **NORTHING** 13,407,541 **US ft (NAD83)**	**EASTING** 2,618,952 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 100.0 ft / **DRILL MACHINE** CME-45	**DRILLER: J. Warren/J. Alexander**	**HAMMER (ID)** 140 lb. Auto (MEC 12)
DATE STARTED 1/3/08 / **COMPLETED** 1/4/08	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Roller Cone**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
67.1					Ground Surface				67.1 / 0.0
67.1	0.0	2	4	5	9	SS-1			Sandy FAT CLAY (CH), very dark grayish brown (2.5Y3/2), stiff, moist, some fine sand, no HCl reaction
63.6	3.5	4	4	4	8	SS-2			3.5ft: gray (2.5Y5/1), firm, trace fine sand, no HCl reaction, trace carbonate nodules
61.1	6.0	3	3	4	7	SS-3			6.0ft: pale yellow (2.5Y7/4), few to little fine sand
58.6	8.5	5	5	6	11	SS-4			8.5ft: yellow (10YR7/6), mottled light gray (10YR7/1), stiff, few carbonate nodules, black staining, weak HCl reaction
56.1	11.0	3	3	4	7	SS-5			11.0ft: brownish yellow (10YR6/6), mottled light greenish gray (10Y7/1), firm, few fine sand
53.6	13.5	3	3	4	7	SS-6			13.5ft: light greenish gray (10Y8/1), mottled with brownish yellow (10YR6/6)
50.1	17.0								POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y7/4), very firm, moist, few fines, strong HCl reaction
48.6	18.5	11	11	16	27	SS-7			
43.6	23.5	20	24	20	44	SS-8			23.5ft: pale yellow (5Y8/2), to brownish yellow (10YR6/6), dense, clayey lenses, gradual increase in clay content with depth
38.6	28.5								Clayey SAND (SC), light gray (5Y7/1), to strong brown (7.5YR5/8), dense, moist, some fines, strong HCl reaction, trace carbonate nodules
33.6	33.5	9	16	17	33	SS-9			
28.6	38.5	16	17	16	33	SS-10			33.5ft: pale yellow (2.5Y7/3), little fines, weak HCl reaction to sand, decrease in clay content with depth
23.6	43.5	8	15	14	29	SS-11			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR8/2), very firm, moist to dry, few fines, lenses of clayey sand with no HCl reaction, strong HCl reaction on clayey lenses
18.6	48.5	9	14	17	31	SS-12			43.5ft: dense
13.6	53.5	11	15	18	33	SS-13			POORLY GRADED SAND (SP), very pale brown (10YR7/4), dense, moist, trace fines, weak HCl reaction
15.6	51.5								Clayey SAND (SC), very pale brown (10YR7/3), firm, moist, some fines, fine sand and 1/2 to 3-inch thick fat clay lenses, weak HCl reaction
		9	9	10	19	SS-14			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2346	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 67.1 ft **(NAVD88)**	**NORTHING** 13,407,541 **US ft (NAD83)**	**EASTING** 2,618,952 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 100.0 ft	**DRILL MACHINE** CME-45	**DRILLER: J. Warren/J. Alexander**	**HAMMER (ID)** 140 lb. Auto (MEC 12)
DATE STARTED 1/3/08	**COMPLETED** 1/4/08	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Roller Cone**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
11.0					Continued from previous page				
8.6	58.5								Clayey SAND (SC), very pale brown (10YR7/3), firm, moist, some fines, fine sand and 1/2 to 3-inch thick fat clay lenses, weak HCl reaction *(continued)*
		5	6	9	15	SS-15			58.5ft: pale yellow (2.5Y7/3), no clayey lenses
3.6	63.5								5.1 — 62.0 POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very firm, moist, fine sand, sandy clay lenses, few fines, weak HCl reaction
		12	11	14	25	SS-16			
-1.4	68.5								
		9	16	15	31	SS-17			68.5ft: dense
-6.4	73.5								-5.9 — 73.0 POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist, trace fines, fine sand, trace clay lense, weak HCl reaction
		17	30	23	53	SS-18			
-11.4	78.5								
		16	17	16	33	SS-19			78.5ft: dense, no fines 80.5ft: very firm, moist, trace fines and fine gravel
-16.4	83.5								
		18	14	15	29	SS-20			
-21.4	88.5								
		26	40	35	75	SS-21			88.5ft: very dense
-26.4	93.5								-23.4 — 90.5 Clayey SAND (SC), pale yellow (2.5Y7/4), dense, moist, fine grained, some fines, carbonate nodules, strong HCl reaction
		20	17	24	41	SS-22			
-31.4	98.5								98.5ft: mottled olive yellow (2.5Y6/6), and light gray (2.5Y7/1)
		18	20	26	46	SS-23			-32.9 — 100.0
									Boring Terminated at Elevation -32.9 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6·12·08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2348	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 50.6 ft (NAVD88)	NORTHING 13,409,627 US ft (NAD83)	EASTING 2,621,653 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 12/16/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
50.6					Ground Surface				
50.6	0.0	2	2	4	6	SS-1			FAT CLAY (CH), black (10YR2/1), firm, moist, trace sand, no HCl reaction
46.4	4.2	1	1	2	3	SS-2			4.2ft: very dark gray (10YR3/1), soft
44.3	6.3	WOH	1	2	3	SS-3			6.3ft: grayish brown (10YR5/2)
42.1	8.5	8	12	14	26	SS-4			8.5ft: pale brown (10YR6/3), very stiff, little sand, ferrous staining, carbonate nodules, strong HCl reaction
39.2	11.4	9	13	12	25	SS-5			39.1 Field reports do not indicate that SS-5 was split into separate jars 11.5
37.0	13.6	9	11	16	27	SS-6			POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), very firm, moist, coarse grained, trace fines, strong HCl reaction
32.0	18.6	10	15	18	33	SS-7			18.6ft: dense, weak HCl reaction
27.0	23.6	4	8	11	19	SS-8			23.6ft: yellowish brown (10YR5/4), firm
22.2	28.4	8	11	12	23	SS-9			Field reports do not indicate that SS-9 was split into separate jars 22.0 28.6 POORLY GRADED SAND with clay (SP-SC), yellowish brown (10YR5/4), mottled brownish yellow (10YR6/8), very firm, moist, coarse grained, few fines, carbonate nodules, strong HCl reaction
17.4	33.2	20	20	14	34	SS-10			Field reports do not indicate that SS-10 was split into separate jars 16.6 34.0 POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), dense, moist, coarse grained, trace fines, strong HCl reaction
12.4	38.2	4	4	7	11	SS-11			12.3 38.3 FAT CLAY (CH), light gray (10YR7/2), stiff, moist, few sand, ferrous staining, strong HCl reaction
7.2	43.4	4	2	6	8	SS-12			43.4ft: mottled with brownish yellow (10YR6/8), firm
2.3	48.3	5	6	8	14	SS-13			48.3ft: stiff, few to little sand, carbonate nodules
-2.8	53.4	5	6	6	12	SS-14			53.4ft: little sand

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2348	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 50.6 ft (NAVD88)	NORTHING 13,409,627 US ft (NAD83)	EASTING 2,621,653 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 12/16/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-5.5					Continued from previous page				
-7.7	58.3								-6.4 / 57.0 POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, coarse grained, trace fines, strong HCl reaction
-12.7	63.3	10	18	19	37	SS-15			
-17.7	68.3	17	28	31	59	SS-16			63.3ft: very dense
-22.7	73.3	16	34	26	60	SS-17			-21.4 / 72.0 POORLY GRADED SAND with gravel (SP), yellowish brown (10YR5/4), very firm, wet, coarse grained, little gravel, subrounded gravel, strong HCl reaction
-27.7	78.3	11	13	10	23	SS-18			
-32.8	83.4	14	14	15	29	SS-19A/B			-28.6 / 79.2 POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, wet, coarse grained, trace fines, strong HCl reaction
-37.7	88.3	17	23	28	51	SS-20			83.4ft: very dense
-42.7	93.3	14	22	30	52	SS-21			-42.7 / 93.3 POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), very dense, moist, coarse grained, few fines, carbonate nodules, strong HCl reaction
-47.7	98.3	32	50/0.5		82/1.0	SS-22			-47.7 / 98.3 POORLY GRADED SAND (SP), pale brown (10YR6/3), very dense, wet, coarse grained, trace fines, strong HCl reaction
-57.7	108.3	18	22	33	55	SS-23			-54.4 / 105.0 FAT CLAY with sand (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff, moist, little sand, strong HCl reaction
		5	4	8	12	SS-24			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2348	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 50.6 ft (NAVD88)	NORTHING 13,409,627 US ft (NAD83)	EASTING 2,621,653 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 12/16/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-61.6					Continued from previous page				
									FAT CLAY with sand (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff, moist, little sand, strong HCl reaction *(continued)*
-67.8	118.4								
		14	21	23	44	SS-25			118.4ft: light gray (10YR7/1), hard, some sand, carbonate nodules
-77.9	128.5								
		7	8	13	21	SS-26			128.5ft: very stiff, little sand
									-82.4 133.0
									POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist, trace fines, strong HCl reaction
-88.0	138.6								
		11	36	42	78	SS-27			
									-94.4 145.0
									Sandy FAT CLAY (CH), light gray (10YR7/2), mottled with brownish yellow (10YR6/6), very stiff, moist, some sand, strong HCl reaction
-97.9	148.5								
		9	9	9	18	SS-28			-99.4 150.0
									Boring Terminated at Elevation -99.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

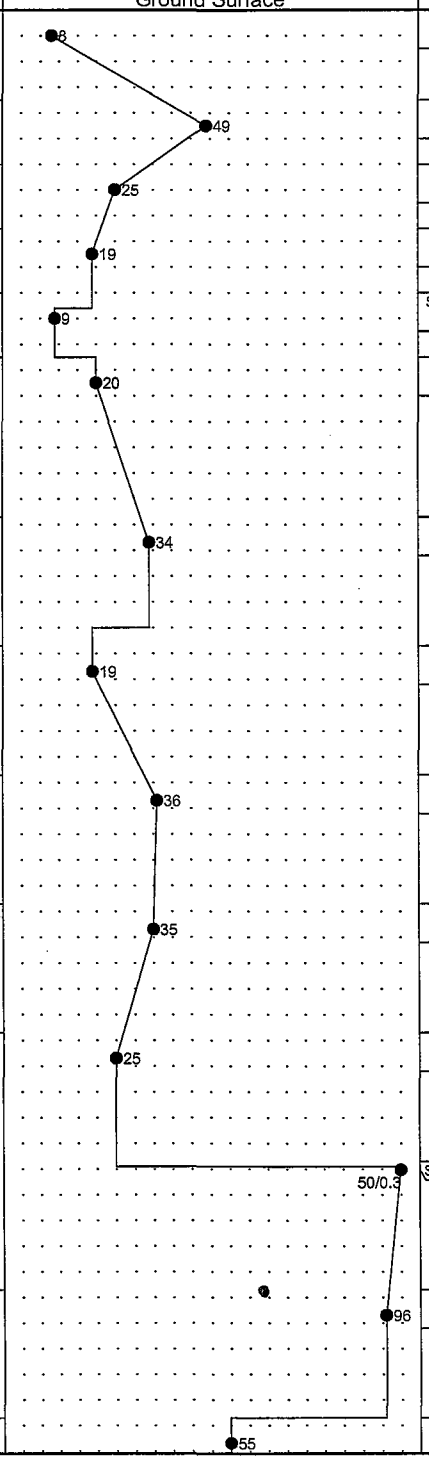
Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2349	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,417,352 US ft (NAD83)	EASTING 2,607,239 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 12/15/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	SOIL AND ROCK DESCRIPTION
76.7						Ground Surface
76.7	0.0	4	4	4	SS-1	FAT CLAY (CH), black (2.5/1), firm, moist, few sand, no HCl reaction, organics
73.2	3.5	27	23	26	SS-2	3.5ft: very dark grayish brown (2.5Y3/2), to yellowish brown (10YR5/8), hard, massive carbonate nodules
70.7	6.0	8	12	13	SS-3	6.0ft: brownish yellow (10YR6/6), very stiff, trace black veining
68.2	8.5	8	8	11	SS-4	8.5ft: olive yellow (2.5Y6/6), little sand
65.7	11.0	4	3	6	SS-5A/B	65.1 — 11.6
63.2	13.5	7	10	10	SS-6	63.2 — 13.5 POORLY GRADED SAND with clay (SP-SC), yellowish brown (10YR5/4), loose, wet, fine grained, few fines, strong HCl reaction; POORLY GRADED SAND (SP), pale brown (10YR6/3), firm, moist to wet, trace fines, weak HCl reaction
57.0	19.7	12	15	19	SS-7	19.7ft: very pale brown (10YR 7/3), dense
52.0	24.7	6	8	11	SS-8	52.7 — 24.0 FAT CLAY (CH), light gray (5Y7/2), very stiff, moist, few sand, strong HCl reaction, trace black staining and carbonate nodules
47.0	29.7	11	16	20	SS-9	29.7ft: mottled olive yellow (2.5Y6/8), hard, little sand
42.0	34.7	10	15	20	SS-10	34.7ft: pale yellow (2.5Y7/3), some sand
37.0	39.7	9	12	13	SS-11	39.7ft: light gray (2.5Y7/2), mottled strong brown (7.5YR5/6), very stiff, little sand, trace black veining
32.0	44.7	50/0.3			SS-12A/B	31.8 — 44.9 44.7ft: white (10YR8/1), hard, few sand; POORLY GRADED SAND (SP), light gray (2.5Y7/2), very dense, wet, trace fines, strong HCl reaction
27.0	49.7	26	46	50	SS-13	49.7ft: light yellowish brown (2.5Y6/3), weak HCl reaction
22.0	54.7	12	24	31	SS-14	22.0 — 54.7



EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2349	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.7 ft (NAVD88)	NORTHING 13,417,352 US ft (NAD83)	EASTING 2,607,239 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 12/15/07	COMPLETED 12/17/07	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
20.6					Continued from previous page				
17.0	59.7								Clayey SAND (SC), light gray (2.5Y7/2), very dense, wet, fine grained, little fines, strong HCl reaction in sand *(continued)*
		15	14	19	33	SS-15A/B			17.0 — 59.7; 16.5 — 60.2: POORLY GRADED SAND (SP), yellowish brown (10YR5/8), dense, wet, fine to coarse grained, trace fines, strong HCl reaction
12.0	64.7								Sandy FAT CLAY (CH), light gray (5Y7/2), hard, moist, some sand, strong HCl reaction
		6	9	11	20	SS-16			64.7ft: greenish gray (10Y6/1), very stiff, little sand
7.0	69.7								
		6	6	7	13	SS-17			69.7ft: light brownish gray (2.5Y6/2), stiff, some sand
									4.7 — 72.0: POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y6/2), dense, wet, fine grained, few fines, strong HCl reaction
2.0	74.7								
		18	19	25	44	SS-18			
-3.0	79.7								
		16	16	16	32	SS-19A/B			-4.0 — 80.7: FAT CLAY with sand (CH), light greenish gray (10Y7/1), hard, moist, some sand, strong HCl reaction, trace carbonate nodules
-8.0	84.7								-8.0 — 84.7: POORLY GRADED SAND with clay (SP-SC), light brownish gray (10Y6/2), dense, wet, fine grained, few fines, strong HCl reaction
		13	15	19	34	SS-20			
-13.0	89.7								
		30	34	33	67	SS-21			89.7ft: light yellowish brown (2.5Y6/3), very dense, strong HCl reaction
									-15.3 — 92.0: FAT CLAY (CH), light greenish gray (10Y7/1), very stiff, moist, trace sand, weak HCl reaction in clay, trace carbonate nodules
-18.0	94.7								
		12	13	15	28	SS-22			-19.8 — 96.5: POORLY GRADED SAND with clay (SP-SC), light brownish gray (10Y6/2), dense, wet, fine grained, few fines, strong HCl reaction
-23.0	99.7								
		15	23	27	50	SS-23			-24.5 — 101.2: Boring Terminated at Elevation -24.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2350	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.3 ft (NAVD88)	NORTHING 13,395,764 US ft (NAD83)	EASTING 2,610,123 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.1 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 1/7/08	COMPLETED 1/8/08	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
65.3					Ground Surface				65.3 / 0.0
65.3	0.0	2	2	2	4	SS-1			FAT CLAY (CH), dark gray (10YR4/1), soft, moist, few sand, no HCl reaction
62.0	3.3	2	2	5	7	SS-2			3.3ft: grayish brown (10YR5/2), firm, little sand, weak HCl reaction
59.6	5.7	2	2	4	6	SS-3			5.7ft: ferrous staining, carbonate nodules
57.0	8.3	1	2	2	4	SS-4			8.3ft: soft
53.8	11.5	2	2	3	5	SS-5			11.5ft: yellowish brown (10YR5/4), firm, no HCl reaction
52.0	13.3	5	7	7	14	SS-6			52.0 / 13.3 — POORLY GRADED SAND (SP), yellowish brown (10YR5/4), firm, moist, coarse grained, trace fines, no HCl reaction
46.9	18.4	3	5	13	18	SS-7			18.4ft: light gray (2.5YR7/2), weak HCl reaction
41.9	23.4	13	14	17	31	SS-8			41.9 / 23.4 — FAT CLAY (CH), light gray (7.5YR7/1), hard, moist, few to little sand, ferrous staining, carbonate nodules, strong HCl reaction
36.8	28.5	4	5	8	13	SS-9			28.5ft: mottled brownish yellow (10YR6/6), stiff
31.7	33.6	5	12	18	30	SS-10			33.6ft: very stiff
26.7	38.6	7	8	11	19	SS-11			26.7 / 38.6 — POORLY GRADED SAND (SP), brownish yellow (10YR6/6), firm, moist, coarse grained, trace fines, strong HCl reaction
21.6	43.7	13	20	22	42	SS-12			43.7ft: dense
16.8	48.5	44	38	33	71	SS-13			48.7ft: light gray (7.5YR7/1), very dense
11.6	53.7	4	6	8	14	SS-14			11.6 / 53.7 — FAT CLAY (CH), light gray (7.5YR7/1), mottled brownish yellow (10YR6/6), stiff, moist, few to little sand, black staining, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2350	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.3 ft (NAVD88)	NORTHING 13,395,764 US ft (NAD83)	EASTING 2,610,123 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.1 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 1/7/08	COMPLETED 1/8/08	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
9.1					Continued from previous page				
6.7	58.6								8.3 — 57.0 POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/2), dense, moist, coarse grained, few fines, carbonate nodules
1.6	63.7	8	17	19	36	SS-15			1.6 — 63.7 POORLY GRADED SAND (SP), light gray (10YR7/1), dense, wet, coarse grained, trace fines, weak HCl reaction
-3.5	68.7	13	21	28	49	SS-16			
-8.5	73.7	13	20	24	44	SS-17			68.7ft: carbonate nodules, strong HCl reaction
-13.5	78.7	4	7	8	15	SS-18			-8.5 — 73.7 FAT CLAY (CH), light gray (7.5YR7/1), mottled brownish yellow (10YR6/6), stiff, moist, few to little sand, strong HCl reaction
-18.5	83.7	5	7	9	16	SS-19			78.7ft: very stiff
-23.4	88.6	6	7	9	16	SS-20			
-28.0	93.2	5	7	9	16	SS-21			
-33.4	98.6	5	9	12	21	SS-22			
		5	6	10	16	SS-23			-34.9 — 100.1 Boring Terminated at Elevation -34.9 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPH Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2351	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 63.7 ft **(NAVD88)**	**NORTHING** 13,398,916 **US ft (NAD83)**	**EASTING** 2,613,286 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 100.0 ft	**DRILL MACHINE** CME-45	**DRILLER: D. Rhodes/K. Guy**	**HAMMER (ID)** 140 lb. Auto (MEC 13)
DATE STARTED 1/5/08	**COMPLETED** 1/6/08	**CASING DEPTH: N/A**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
63.7					Ground Surface				
63.7	0.0	1	2	2	4	SS-1			FAT CLAY (CH), very dark gray (10YR4/1), soft, moist, trace to few sand, no HCl reaction
60.1	3.6	1	2	2	4	SS-2			Clayey SAND (SC), dark gray (5YR4/1), very loose, moist, little fines, no HCl reaction
57.9	5.8	2	4	4	8	SS-3			5.8ft: light gray (10YR7/1), mottled brownish yellow (10YR6/8), loose
55.1	8.6	2	6	7	13	SS-4			8.6ft: pale brown (10YR6/3), firm, ferrous staining, carbonate deposits, strong HCl reaction
53.0	10.7	7	10	11	21	SS-5			POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, moist, coarse grained, trace fines, no HCl reaction
50.3	13.4	10	13	19	32	SS-6			13.4ft: dense, wet
45.3	18.4	21	31	26	57	SS-7			18.4ft: very dense, moist, carbonate deposits
40.3	23.4	3	6	7	13	SS-8			FAT CLAY (CH), light yellowish brown (10YR6/4), stiff, moist, few to little sand, strong HCl reaction
35.2	28.5	3	5	6	11	SS-9			28.5ft: ferrous staining, carbonate nodules
30.2	33.5	5	7	10	17	SS-10			Clayey SAND (SC), light gray (10YR7/1), firm, moist, coarse grained, some fines, carbonate nodules, ferrous staining, strong HCl reaction
25.2	38.5	5	7	9	16	SS-11A/B			FAT CLAY (CH), light gray (10YR7/2), very stiff, moist, few to little sand, strong HCl reaction
20.2	43.5	6	9	13	22	SS-12			POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), very firm, wet, coarse grained, trace fines, no HCl reaction
15.3	48.4	3	6	7	13	SS-13			48.4ft: firm
10.2	53.5	14	25	22	47	SS-14			53.5ft: dense, moist, interbedded clayey sand, carbonate deposits, strong HCl reaction

Field reports do not indicate that SS-12 was split into separate jars

60.2 — 3.5; 53.0 — 10.7; 40.3 — 23.4; 31.7 — 32.0; 24.3 — 39.4; 20.0 — 43.7

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2351	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 63.7 ft (NAVD88)	NORTHING 13,398,916 US ft (NAD83)	EASTING 2,613,286 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 1/5/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
7.6					Continued from previous page				
5.2	58.5								POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), very firm, wet, coarse grained, trace fines, no HCl reaction *(continued)*
		15	18	20	38	SS-15			1.7 / 62.0
0.0	63.7								FAT CLAY (CH), light brownish gray (10YR6/2), stiff, moist, few sand, ferrous stains, strong HCl reaction
		5	6	8	14	SS-16			
-4.8	68.5								Field reports do not indicate that SS-17 was split into separate jars
		7	14	20	34	SS-17			-5.0 / 68.7 POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), dense, moist, coarse grained, trace fines, strong HCl reaction
-9.8	73.5								
		18	33	33	66	SS-18			73.5ft: very dense
-14.9	78.6								-14.9 / 78.6
		5	7	8	15	SS-19			FAT CLAY (CH), light gray (10YR7/2), stiff, moist, few to little sand, carbonate nodules, ferrous staining, strong HCl reaction
-19.9	83.6								
		5	7	8	15	SS-20			
-24.0	87.7								Field reports do not indicate that SS-21 was split into separate jars
		10	21	28	49	SS-21			-25.3 / 89.0 POORLY GRADED SAND (SP), very pale brown (10YR7/3), dense, moist, coarse grained, trace fines, strong HCl reaction
-29.7	93.4								
		12	17	27	44	SS-22			94.2ft: thick carbonate layer
-34.8	98.5								
		15	35	48	83	SS-23			98.5ft: pale brown (10YR6/3), very dense
									-36.3 / 100.0 Boring Terminated at Elevation -36.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPK Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2352	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 62.9 ft (NAVD88)	NORTHING 13,402,480 US ft (NAD83)	EASTING 2,617,531 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 1/3/08	COMPLETED 1/4/08	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
62.9					Ground Surface				62.9 / 0.0
62.9	0.0	1	2	3	5	SS-1			Sandy LEAN CLAY (CL), dark gray (10YR4/1), firm, moist, fine to medium grained sand, no HCl reaction
59.5	3.4	2	3	5	8	SS-2			3.4ft: grayish brown (10YR5/2), black and ferrous staining
56.3	6.6	2	2	3	5	SS-3			57.1 / 5.8 LEAN CLAY with sand (CL), light brownish gray (10YR6/2), firm, moist, fine to coarse grained sand, fine gravel, carbonate nodules, strong HCl reaction
54.3	8.6	2	3	7	10	SS-4			54.3 / 8.6 Sandy LEAN CLAY (CL), pale brown (10YR6/3), stiff, moist, fine to coarse grained sand, ferrous staining, carbonate nodules, strong HCl reaction
51.9	11.0	4	5	9	14	SS-5			51.9 / 11.0 FAT CLAY (CH), pale brown (10YR6/3), stiff, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction
49.4	13.5	6	6	9	15	SS-6			49.4 / 13.5 LEAN CLAY with sand (CL), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff, moist, fine to medium grained sand, strong HCl reaction
44.3	18.6	3	6	6	12	SS-7			44.3 / 18.6 LEAN CLAY (CL), light yellowish brown (10YR6/4), stiff, moist, fine to medium grained sand, ferrous staining, strong HCl reaction
39.4	23.5	3	6	7	13	SS-8			39.4 / 23.5 FAT CLAY (CH), yellowish brown (10YR5/4), stiff, moist, fine to medium grained sand, weak HCl reaction
34.4	28.5	3	4	6	10	SS-9			
29.4	33.5	4	6	9	15	SS-10			33.5ft: light gray (10YR7/1), mottled brownish yellow (10YR6/6), strong HCl reaction
24.4	38.5	6	6	10	16	SS-11			Field reports do not indicate that SS-11 was split into separate jars 24.1 / 38.8 LEAN CLAY with sand (CL), light gray (10YR7/2), mottled brownish yellow (10YR6/6), very stiff, moist, fine to medium grained sand, strong HCl reaction (visual)
19.4	43.5	12	10	20	30	SS-12			Field reports do not indicate that SS-12 was split into separate jars 19.0 / 43.9 Clayey SAND (SC), light gray (10YR7/2), very firm, moist, fine to medium grained sand, strong HCl reaction (visual)
14.3	48.6	12	20	22	42	SS-13			48.6ft: dense (visual)
9.4	53.5	8	9	15	24	SS-14			53.5ft: very firm, wet (visual)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST J. Jarvis
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2352	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 62.9 ft (NAVD88)	NORTHING 13,402,480 US ft (NAD83)	EASTING 2,617,531 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 150.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 1/3/08	COMPLETED 1/4/08	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
6.8					Continued from previous page				
4.3	58.6								Clayey SAND (SC), light gray (10YR7/2), very firm, moist, fine to medium grained sand, strong HCl reaction (visual) *(continued)*
-0.6	63.5	5	4	7	11	SS-15			LEAN CLAY with sand (CL), light yellowish brown (10YR6/4), stiff, moist, fine to medium grained sand, strong HCl reaction
-5.7	68.6	6	5	6	11	SS-16			Sandy LEAN CLAY (CL), light yellowish brown (10YR6/4), stiff, moist, fine to coarse grained sand, fine gravel, strong HCl reaction
-10.6	73.5	3	5	6	11	SS-17			FAT CLAY (CH), light gray (10YR7/1), stiff, moist, fine to medium grained sand, ferrous staining, strong HCl reaction
-15.6	78.5	18	25	28	53	SS-18			POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), very dense, moist, fine to coarse grained sand, fine gravel, strong HCl reaction (visual)
-20.7	83.6	24	27	40	67	SS-19			Clayey SAND (SC), pale brown (10YR6/3), very dense, moist, fine to coarse grained sand, fine subangular gravel, strong HCl reaction (visual)
-25.6	88.5	19	28	28	56	SS-20			POORLY GRADED SAND with silt (SP-SM), pale brown (10YR6/3), very dense, moist, fine to coarse grained sand, fine gravel, strong HCl reaction (visual)
-30.7	93.6	23	21	30	51	SS-21			Silty SAND (SM), pale brown (10YR6/3), very dense, moist, fine to coarse grained sand, fine subangular gravel, strong HCl reaction (visual)
-35.6	98.5	26	32	40	72	SS-22			Clayey SAND (SC), pale brown (10YR6/3), very dense, moist, fine to coarse grained sand, fine gravel, strong HCl reaction (visual)
-45.6	108.5	37	50/0.5		87/1.0	SS-23			Silty SAND (SM), very pale brown (10YR8/2), very dense, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction (visual)
		10	18	38	56	SS-24			108.5ft: pale brown (10YR6/3), and brownish yellow (10YR6/6), interbedded clay with sand (visual)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** J. Jarvis
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**
BORING NO. B-2352 / **DRILL METHOD:** Mud Rotary	**SAMPLE METHODS:** SPT	**0 HR.** ND
GROUND SURFACE ELEV. 62.9 ft **(NAVD88)** / **NORTHING** 13,402,480 **US ft (NAD83)**	**EASTING** 2,617,531 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 150.0 ft / **DRILL MACHINE** CME-45	**DRILLER:** D. Rhodes/K. Guy	**HAMMER (ID)** 140 lb. Auto (MEC 13)
DATE STARTED 1/3/08 / **COMPLETED** 1/4/08	**CASING DEPTH:** N/A	**BITS USED:** 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-49.3					Continued from previous page				
-55.7	118.6								Silty SAND (SM), very pale brown (10YR8/2), very dense, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction (visual) *(continued)* Field reports do not indicate SS-25 was split into separate jars -55.9 118.8
-65.7	128.6	8	9	12	21	SS-25			Clayey SAND (SC), light gray (10YR7/2), mottled brownish yellow (10YR6/6), very firm, moist, fine to medium grained sand, weak HCl reaction
-75.5	138.4	15	18	22	40	SS-26			128.6ft: pinkish gray (5YR7/2), dense, moist, fine to medium grained sand, ferrous staining, no HCl reaction (visual) -75.5 138.4
-85.6	148.5	15	23	23	46	SS-27			Silty SAND (SM), light yellowish brown (10YR6/4), dense, moist, fine to medium grained sand, ferrous staining, no HCl reaction (visual) -85.6 148.5
		9	10	14	24	SS-28			LEAN CLAY with sand (CL), very stiff, moist, fine to medium grained sand, strong HCl reaction -87.1 150.0
									Boring Terminated at Elevation -87.1 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST B. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2352UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 62.8 ft (NAVD88)	NORTHING 13,402,493 US ft (NAD83)	EASTING 2,617,544 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 94.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) NA
DATE STARTED 2/1/08	COMPLETED 2/2/08	CASING DEPTH: N/A	BITS USED: 6" Tricone

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
62.8					Ground Surface				62.8 0.0
									Begin sampling by Shelby tube
59.3	3.5					UD-1			3.5ft: Sandy LEAN CLAY (CL), pale brown (10YR6/3), moist, fine to coarse sand, weak HCl reaction - 1.7ft recovery
53.8	9.0					UD-2			9.0ft: Sandy LEAN CLAY (CL), brownish gray (10YR6/6), moist, weak HCl reaction - 0.7ft recovery
51.3	11.5					UD-3			11.5ft: LEAN CLAY (CL), yellowish brown (10YR5/6), moist, fine grained sand, weak HCl reaction - 1.7ft recovery
48.8	14.0					UD-4			14.0ft: Sandy LEAN CLAY (CL), yellowish brown (10YR5/6), moist, weak HCl reaction - 1.7ft recovery
38.8	24.0					UD-5			24.0ft: FAT CLAY (CH), brownish yellow (10YR6/6), moist, fine to medium grained sand, strong HCl reaction - 1.7ft recovery
28.8	34.0					UD-6			34.0ft: FAT CLAY (CH), brownish yellow (10YR6/6), moist, strong HCl reaction, carbonate nodules - 1.7ft recovery

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2352UD	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: UD**	**0 HR.** ND
GROUND SURFACE ELEV. 62.8 ft **(NAVD88)**	**NORTHING** 13,402,493 **US ft (NAD83)**	**EASTING** 2,617,544 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 94.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** NA
DATE STARTED 2/1/08	**COMPLETED** 2/2/08	**CASING DEPTH: N/A**	**BITS USED: 6" Tricone**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
6.7					Continued from previous page				
3.8	59.0					UD-7			59.0ft: LEAN CLAY with sand (CL), very pale brown (10YR7/4), moist, strong HCl reaction - 1.7ft recovery
-5.2	68.0					UD-8			68.0ft: Silty SAND (SM), light gray (10YR7/1), wet, fine to coarse grained sand, fine gravel, weak HCl reaction (visual) - 1.6ft recovery
-25.2	88.0					UD-9			Changed sample method to Pitcher barrel 88.0ft: Silty SAND (SM), very pale brown (10YR7/3), mottled reddish brown (5YR4/3), and pale yellow (2.5Y8/2), little fines, trace gravel, strong HCl reaction - 1.2ft recovery
-29.2	92.0					UD-10			90.5ft: Silty SAND (SM), very pale brown (10YR8/3), trace gravel, little fines, strong HCl reaction 92.0ft: Silty SAND (SM), very pale brown (10YR7/3), little fines, strong HCl reaction - 1.5ft recovery
									-31.7 94.5
									Boring Terminated at Elevation -31.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

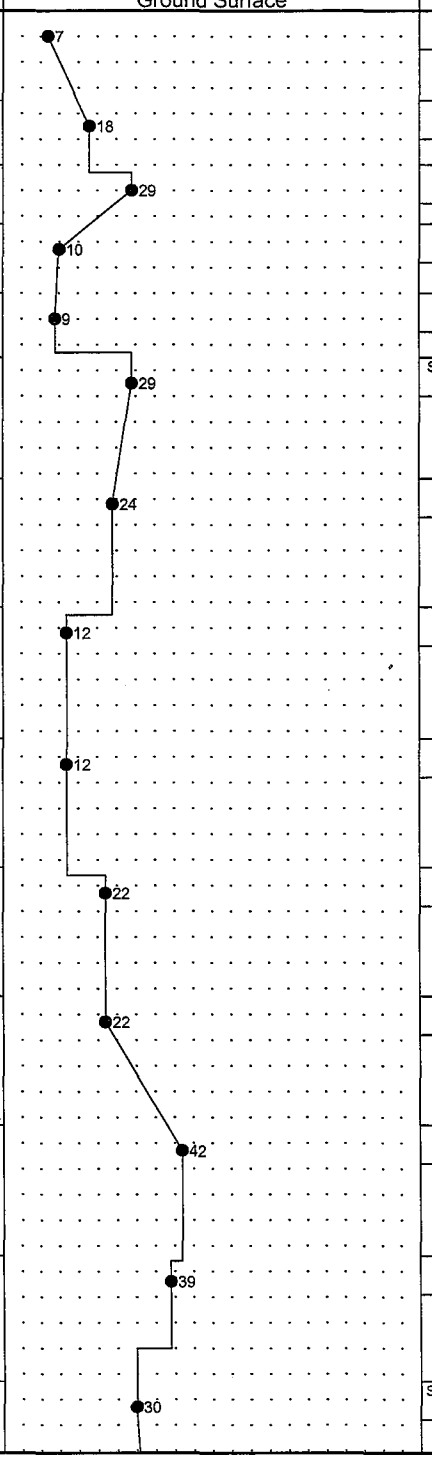
MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPJ Date 6-12-08
Checked By KAW Date 6-12-08
SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2353	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.6 ft (NAVD88)	NORTHING 13,406,186 US ft (NAD83)	EASTING 2,620,582 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 99.9 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Automatic
DATE STARTED 12/18/07	COMPLETED 12/19/07	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	SOIL AND ROCK DESCRIPTION
65.6						Ground Surface
65.6	0.0	2	3	4	SS-1	FAT CLAY (CH), dark grayish brown (10YR4/2), firm, moist, few to little sand, ferrous staining, trace carbonate nodules, weak HCl reaction
62.1	3.5	5	8	10	SS-2	3.5ft: very stiff
59.6	6.0	7	11	18	SS-3	Field reports no not indicate that SS-3 was split into separate jars
59.3	6.3					Clayey SAND (SC), very pale brown (10YR7/4), very firm, moist, coarse grained, few to little fines, no HCl reaction
57.3	8.3	8	4	6	SS-4	8.3ft: loose, pale brown (10YR6/3)
54.6	11.0	2	3	6	SS-5	
52.3	13.3					POORLY GRADED SAND (SP), yellowish brown (10YR5/6), to very pale brown (10YR8/2), very firm, wet, coarse grained, trace fines, ferrous staining, no HCl reaction
52.1	13.5	8	12	17	SS-6A/B	
47.4	18.2	14	13	11	SS-7	
42.4	23.2					Field reports do not indicate that SS-8 was split into separate jars.
42.1	23.5					FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/8), stiff, moist, few to little sand, strong HCl reaction
37.3	28.3	6	5	7	SS-8	
32.3	33.3	4	5	7	SS-9	28.3ft: brownish yellow (10YR6/8), mottled light gray (10YR7/2)
32.0	33.6					Field reports do not indicate that SS-10 was split into separate jars
27.3	38.3	8	11	11	SS-10	Clayey SAND (SC), light gray (10YR7/2), very firm, moist, coarse grained, little fines, strong HCl reaction, ferrous staining
22.3	43.3	9	8	14	SS-11	
17.2	48.4	10	15	27	SS-12	43.2ft: little to some fines, dense
17.0	48.6					Field reports do not indicate that SS-13 was split into separate jars
12.3	53.3	18	17	22	SS-13	POORLY GRADED SAND (SP) pale brown (10YR6/3), dense, wet, coarse grained, trace fines, weak HCl reaction
13.6	52.0					Clayey SAND (SC), light gray (10YR7/2), mottled brownish yellow (10YR6/8), very firm, moist, coarse grained, some fines, strong HCl reaction
11.4	54.2	6	10	20	SS-14A/B	

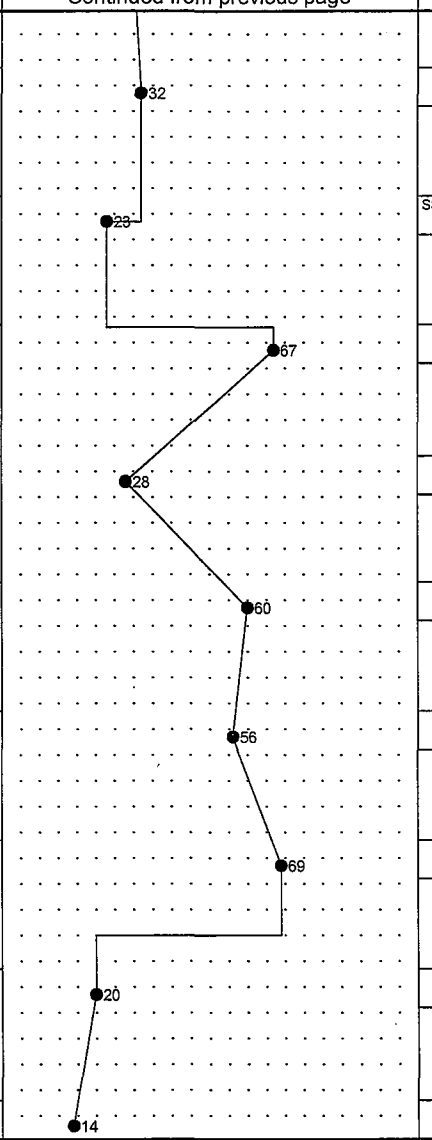


EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2353	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.6 ft (NAVD88)	NORTHING 13,406,186 US ft (NAD83)	EASTING 2,620,582 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 99.9 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Automatic
DATE STARTED 12/18/07	COMPLETED 12/19/07	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	SOIL AND ROCK DESCRIPTION
9.5						Continued from previous page
7.3	58.3	11	15	17	SS-15	POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, wet, coarse grained, trace fines, weak HCl reaction *(continued)* 58.3ft: dense
2.3	63.3	15	13	10	SS-16A/B	1.3 / 64.3 Clayey SAND (SC), light gray (10YR7/2), mottled brownish yellow (10YR6/8), very firm, moist, coarse grained, some fines, strong HCl reaction
-2.7	68.3	28	29	38	SS-17	-2.8 / 68.4 POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), very dense, wet, coarse grained, trace fines, strong HCl reaction
-7.8	73.4	11	13	15	SS-18	73.4ft: very firm
-12.7	78.3	21	31	29	SS-19	78.3ft: very dense
-17.7	83.3	18	24	32	SS-20	83.3ft: pale brown (10YR6/3), few gravel
-22.7	88.3	16	20	49	SS-21	88.3ft: light yellowish brown (10YR6/4)
-27.7	93.3	7	8	12	SS-22	-26.4 / 92.0 FAT CLAY (CH), light gray (10YR7/1), mottled brownish yellow (10YR6/6), very stiff, moist, few to little sand, carbonate nodules, strong HCl reaction
-32.8	98.4	6	6	8	SS-23	98.4ft: gray (10YR6/1), stiff, weak HCl reaction
						-34.3 / 99.9 Boring Terminated at Elevation -34.3 ft



EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6·12·08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2354	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.8 ft (NAVD88)	NORTHING 13,418,120 US ft (NAD83)	EASTING 2,607,884 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/D. Criscenzo	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/2/08	COMPLETED 1/2/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
76.8					Ground Surface				76.8 / 0.0
76.8	0.0	WOH	2	4	6	SS-1			FAT CLAY (CH), dark yellowish brown (10YR3/6), firm, moist, few sand, no HCl reaction, trace organics
73.3	3.5	9	10	10	20	SS-2			3.5ft: brownish yellow (10YR6/6), very stiff, weak to strong HCl reaction, trace carbonate nodules
70.8	6.0	4	7	9	16	SS-3			
68.3	8.5	5	5	4	9	SS-4			8.5ft: stiff, little sand
65.8	11.0	5	6	7	13	SS-5			65.8 / 11.0 — POORLY GRADED SAND (SP), very pale brown (10YR7/4), firm, moist to wet, fine grained, trace fines, no HCl reaction
63.3	13.5	6	10	13	23	SS-6			13.5ft: very firm
57.2	19.6	9	15	24	39	SS-7			19.6ft: light yellowish brown (10YR6/4), dense, weak HCl reaction
52.2	24.6	7	11	14	25	SS-8			53.8 / 23.0 — FAT CLAY (CH), light greenish gray (10Y7/1), very stiff, few sand, trace carbonate nodules
47.2	29.6	9	9	12	21	SS-9			48.8 / 28.0 — Clayey SAND (SC), light brownish gray (2.5Y6/2), very firm, wet, fine grained, little fines, weak HCl reaction, trace carbonate nodules
42.2	34.6	10	15	22	37	SS-10			42.2 / 34.6 — POORLY GRADED SAND (SP), light yellowish brown (2.5Y6/4), dense, moist, fine grained, trace fines, strong HCl reaction, trace carbonate nodules
37.2	39.6	17	24	31	55	SS-11			39.6ft: light gray (2.5Y7/2), very dense, weak HCl reaction
32.2	44.6	50/0.3			50/0.3	SS-12			29.8 / 47.0 — FAT CLAY (CH), greenish gray (10Y6/1), mottled strong brown (7.5YR5/8), hard, moist, few sand, strong HCl reaction, sand content increases with depth
27.2	49.6	10	14	23	37	SS-13			
22.2	54.6	20	33	50/0.5	83/1.0	SS-14			22.2 / 54.6

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2354	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 76.8 ft (NAVD88)	NORTHING 13,418,120 US ft (NAD83)	EASTING 2,607,884 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.2 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/D. Criscenzo	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/2/08	COMPLETED 1/2/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
20.7					Continued from previous page				
17.2	59.6	25	24	27	51	SS-15			POORLY GRADED SAND (SP), very pale brown (10YR7/4), to brownish yellow (10YR6/8), very dense, moist, fine grained, trace fines, strong HCl reaction *(continued)* 59.6ft: very pale brown (10YR7/4)
12.2	64.6	7	9	12	21	SS-16			14.8 — 62.0 FAT CLAY (CH), light greenish gray (10Y7/1), mottled brownish yellow (10YR6/6), very stiff, moist, trace sand, strong HCl reaction, trace carbonate nodules
7.2	69.6	7	9	13	22	SS-17			69.6ft: light olive gray (5Y6/2), trace orange staining
2.2	74.6	8	11	12	23	SS-18			74.6ft: light yellowish brown (2.5Y6/3), little sand, sand lenses
-2.8	79.6	13	14	11	25	SS-19			-0.2 — 77.0 POORLY GRADED SAND with clay (SP-SC), light yellowish brown (2.5Y6/3), very firm, wet, fine grained, few fines, strong HCl reaction
-7.8	84.6	9	17	24	41	SS-20			-7.8 — 84.6 POORLY GRADED SAND (SP), light yellowish brown (2.5Y6/4), to olive yellow (2.5Y6/8), dense, wet, fine grained, trace fines, strong HCl reaction
-12.8	89.6	14	24	24	48	SS-21			89.6ft: light brownish gray (10YR6/2)
-17.8	94.6	12	20	24	44	SS-22			94.6ft trace chert nodules
-22.8	99.6	27	50/0.1		77/0.6	SS-23			-23.4 — 100.2 99.6ft: light gray (2.5Y7/2), very dense
									Boring Terminated at Elevation -23.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6/12-08

Checked By KAW Date 6·12·08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2355	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.0 ft (NAVD88)	NORTHING 13,412,008 US ft (NAD83)	EASTING 2,611,224 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.7 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/18/08	COMPLETED 1/19/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
71.0					Ground Surface				71.0 / 0.0
71.0	0.0	3	4	6	10	SS-1			FAT CLAY (CH), black (10YR2/1), stiff, moist, few sand, no HCl reaction, organics
67.5	3.5	4	4	5	9	SS-2			3.5ft: gray (10YR6/1), strong HCl reaction
65.0	6.0	4	4	5	9	SS-3			6.0ft: light brownish gray (10YR6/2), weak HCl reaction
62.5	8.5	4	3	5	8	SS-4			8.5ft: firm, little sand
60.0	11.0	5	7	12	19	SS-5			60.0 / 11.0 — Clayey SAND (SC), pale brown (10YR6/3), firm, moist to dry, fine grained sand, little fines, no HCl reaction
57.5	13.5	8	15	21	36	SS-6			57.5 / 13.5 — POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, moist to dry, fine sand, trace fines, no HCl reaction
50.8	20.2	8	14	24	38	SS-7			20.2ft: very pale brown (10YR7/3)
45.8	25.2	16	9	11	20	SS-8A/B			44.9 / 26.1 — 25.2ft: pale brown (10YR6/3), firm, moist; FAT CLAY (CH), brownish yellow (10YR6/6), very stiff, moist, trace sand, no HCl reaction
40.8	30.2	4	4	6	10	SS-9			30.2ft: pale brown (10YR6/3), very stiff, little sand
35.8	35.2	11	11	14	25	SS-10			35.2ft: very stiff, trace sand
30.8	40.2	10	15	24	39	SS-11			30.8 / 40.2 — POORLY GRADED SAND (SP), very pale brown (10YR7/3), dense, moist, fine grained sand, trace fines, no HCl reaction
25.8	45.2	10	14	23	37	SS-12			45.2ft: yellowish brown (10YR5/4), wet, medium grained sand
20.8	50.2	9	10	17	27	SS-13			50.2ft: very firm, moist, weak HCl reaction
15.8	55.2	4	6	6		SS-14			15.8 / 55.2

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2355	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 71.0 ft (NAVD88)	NORTHING 13,412,008 US ft (NAD83)	EASTING 2,611,224 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.7 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/18/08	COMPLETED 1/19/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
14.9					Continued from previous page				
					12				FAT CLAY (CH), yellowish brown (10YR5/4), stiff, moist, few sand, strong HCl reaction *(continued)*
10.8	60.2								
		4	5	6	11	SS-15			60.2ft: little sand, weak HCl reaction
5.8	65.2								5.8 — 65.2
		5	4	10	14	SS-16			Clayey SAND (SC), pale brown (10YR6/3), firm, wet, fine to medium grained sand, little fines, weak HCl reaction
0.8	70.2								0.8 — 70.2
		8	11	15	26	SS-17			POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, wet, medium grained sand, trace fines, weak HCl reaction
-4.2	75.2								
		16	13	22	35	SS-18			75.2ft: brown (10YR5/3), dense, no HCl reaction
-9.2	80.2								
		9	9	5	14	SS-19			80.2ft: pale brown (10YR6/3), firm, coarse grained sand
-14.2	85.2								
		9	11	12	23	SS-20			85.2ft: brown (10YR5/3), very firm, ferrous staining
-19.2	90.2								-19.2 — 90.2
		5	3	6	9	SS-21			FAT CLAY (CH), pale brown (10YR6/3), stiff, moist, few sand, weak HCl reaction, 2 interbedded sand lenses
-24.2	95.2								-24.2 — 95.2
		13	18	19	37	SS-22			POORLY GRADED SAND (SP), brownish yellow (10YR6/6), dense, moist, coarse grained sand, trace fines, strong HCl reaction 100.2ft: 0.7ft thick layer of WELL GRADED GRAVEL with sand and clay (GC)
-29.2	100.2								-29.9 — 100.9
		32	17	17	34	SS-23A/B			-30.7 — 101.7 FAT CLAY (CH), light gray (10YR7/1), hard, moist, few sand, weak HCl reaction Boring Terminated at Elevation -30.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2356	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 67.7 ft (NAVD88)	NORTHING 13,409,147 US ft (NAD83)	EASTING 2,614,294 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.9 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/20/08	COMPLETED 1/21/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
67.7					Ground Surface				67.7 0.0
67.7	0.0	2	2	4	6	SS-1			FAT CLAY (CH), very dark gray (10YR3/1), firm, moist, trace sand, no HCl reaction, roots
64.2	3.5	4	4	5	9	SS-2			3.5ft: yellowish brown (10YR5/4), stiff, little sand
61.7	6.0	5	6	6	12	SS-3			61.7 6.0 Clayey SAND (SC), yellowish brown (10YR5/6), firm, moist, fine grained sand, little fines, no HCl reaction
59.2	8.5	5	4	6	10	SS-4			8.5ft: brownish yellow (10YR6/6), loose
56.7	11.0	4	8	15	23	SS-5			56.7 11.0 POORLY GRADED SAND (SP), yellowish brown (10YR5/4), very firm, moist, fine grained sand, few fines, no HCl reaction
54.2	13.5	4	6	8	14	SS-6			54.2 13.5 FAT CLAY with sand (CH), brownish yellow (10YR6/6), stiff, moist, little sand, strong HCl reaction
47.3	20.4	6	9	13	22	SS-7			20.4ft: yellowish brown (10YR5/6), very stiff
42.3	25.4	9	12	11	23	SS-8			25.4ft: pale brown (10YR6/3)
37.3	30.4	4	4	5	9	SS-9			30.4ft: brownish yellow (10YR6/6), stiff, few sand
32.3	35.4	5	10	10	20	SS-10			35.4ft: light gray (10YR7/1), mottled yellowish brown (10YR5/6), very stiff, little sand
27.3	40.4	4	8	11	19	SS-11			40.4ft: gray (10YR6/1), carbonate nodules
22.3	45.4	4	6	8	14	SS-12			45.4ft: yellowish brown (10YR5/8), stiff, strong HCl reaction
17.3	50.4	4	5	5	10	SS-13			50.4ft: light gray (10YR7/1), mottled brownish yellow (10YR6/6), few sand, weak HCl reaction
12.3	55.4	4	6	9		SS-14			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2356	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 67.7 ft (NAVD88)	NORTHING 13,409,147 US ft (NAD83)	EASTING 2,614,294 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 101.9 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/20/08	COMPLETED 1/21/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
11.6					Continued from previous page				
					15				55.4ft: pale brown (10YR6/3), little sand FAT CLAY with sand (CH), brownish yellow (10YR6/6), stiff, moist, little sand, strong HCl reaction *(continued)*
7.3	60.4								7.3 — 60.4
		9	11	14	25	SS-15			POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, wet, fine to medium grained sand, trace fines, strong HCl reaction
2.3	65.4								2.3 — 65.4
		6	16	34	50	SS-16			POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), dense, moist, medium grained sand, few fines, strong HCl reaction
-2.7	70.4								
		13	30	44	74	SS-17			70.4ft: very dense, weak HCl reaction
-7.7	75.4								-7.7 — 75.4
		26	22	19	41	SS-18			POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, wet, coarse grained, trace fines, coarse sand, weak HCl reaction
-12.7	80.4								
		21	25	27	52	SS-19			80.4ft: very dense
-17.7	85.4								-17.7 — 85.4
		5	7	15	22	SS-20			FAT CLAY (CH), light gray (CH), 10YR7/2), very stiff, moist, few sand, strong HCl reaction
-22.7	90.4								
		9	17	24	41	SS-21			90.4ft: hard, moist, little sand, carbonate nodules
-27.7	95.4								-27.7 — 95.4
		10	8	15	23	SS-22			Clayey SAND (SC), very pale brown (10YR7/3), very firm, moist, fine sand, little fines, strong HCl reaction
-32.7	100.4								
		21	18	22	40	SS-23			100.4ft: dense
									-34.2 — 101.9
									Boring Terminated at Elevation -34.2 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST J. Jarvis
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2357	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 65.7 ft (NAVD88)	NORTHING 13,404,654 US ft (NAD83)	EASTING 2,620,736 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 100.0 ft	DRILL MACHINE CME-45	DRILLER: D. Rhodes/K. Guy	HAMMER (ID) 140 lb. Auto (MEC 13)
DATE STARTED 12/19/07	COMPLETED 1/3/08	CASING DEPTH: N/A	BITS USED: 3" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
65.7					Ground Surface				65.7 / 0.0
65.7	0.0	WOH	WOH	2	2	SS-1			FAT CLAY (CH), very dark grayish brown (10YR3/2), soft, moist, few sand, ferrous staining, no HCl reaction
62.2	3.5	3	5	5	10	SS-2			3.5ft: light yellowish brown (2.5Y6/4), stiff, little sand
59.9	5.8	4	7	8	15	SS-3			5.8ft: some sand
57.1	8.6	8	8	13	21	SS-4			8.6ft: brownish yellow (10YR6/6), very stiff, few to little sand, carbonate nodules
54.4	11.3	3	3	4	7	SS-5			54.4 / 11.3 POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), loose, moist, coarse grained, trace fines, carbonate nodules, no to strong HCl reaction
52.1	13.6	2	5	6	11	SS-6			13.6ft: firm
47.1	18.6	4	7	9	16	SS-7			18.6ft: pale brown (10YR6/3)
42.1	23.6	11	10	13	23	SS-8			23.6ft: very firm, 0.3' thick interbedded clay layer with carbonate nodules
37.2	28.5	9	13	16	29	SS-9			
32.1	33.6	11	21	34	55	SS-10			33.6ft: very dense
27.1	38.6	12	10	19	29	SS-11			Field reports do not indicate that SS-11 was split into separate jars
22.1	43.6	17	21	25	46	SS-12			26.2 / 39.5 FAT CLAY (CH), brownish yellow (10YR6/6), very stiff, moist, few sand, carbonate nodules, ferrous staining, strong HCl reaction
17.2	48.5	8	9	17	26	SS-13			23.7 / 42.0 POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, moist, coarse grained, trace fines, strong HCl reaction
12.1	53.6	14	14	13	27	SS-14			48.5ft: very firm

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** J. Jarvis	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**		**GROUND WATER (ft)**
BORING NO. B-2357	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 65.7 ft **(NAVD88)**	**NORTHING** 13,404,654 **US ft (NAD83)**	**EASTING** 2,620,736 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 100.0 ft	**DRILL MACHINE** CME-45	**DRILLER: D. Rhodes/K. Guy**	**HAMMER (ID)** 140 lb. Auto (MEC 13)
DATE STARTED 12/19/07	**COMPLETED** 1/3/08	**CASING DEPTH: N/A**	**BITS USED: 3" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
9.6					Continued from previous page				
7.1	58.6								POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, moist, coarse grained, trace fines, strong HCl reaction *(continued)*
2.3	63.4	5	10	18	28	SS-15			58.6ft: light gray (10YR7/2), mottled brownish yellow (10YR6/6)
-2.9	68.6	7	7	10	17	SS-16			64.0ft: firm, interbedded fat clay
-7.9	73.6	5	4	10	14	SS-17			-1.3 / 67.0 Clayey SAND (SC), very pale brown (10YR7/3), firm moist, coarse grained, little fines, ferrous staining, strong HCl reaction
-12.9	78.6	8	11	17	28	SS-18			-7.9 / 73.6 POORLY GRADED SAND (SP), pale brown (10YR6/3), very firm, moist, coarse grained, trace fines, strong HCl reaction
-17.9	83.6	10	11	16	27	SS-19			
-22.9	88.6	4	5	7	12	SS-20			-17.9 / 83.6 FAT CLAY (CH), light gray (10YR7/2), stiff, moist, few to little sand, strong HCl reaction
-27.9	93.6	23	24	25	49	SS-21			-21.3 / 87.0 POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, moist, coarse grained, trace fines, no HCl reaction
-32.8	98.5	22	25	26	51	SS-22			93.6ft: very dense
		4	5	7	12	SS-23			-32.8 / 98.5 FAT CLAY with sand (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff, moist, little sand, carbonate nodules, no HCl reaction
									-34.3 / 100.0 Boring Terminated at Elevation -34.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST B. Taylor
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2358	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 66.5 ft (NAVD88)	NORTHING 13,402,102 US ft (NAD83)	EASTING 2,611,621 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/3/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
66.5					Ground Surface				66.5 / 0.0
66.5	0.0	4	5	5	10	SS-1			FAT CLAY (CH), very dark gray (10YR3/1), stiff, moist, few sand, no HCl reaction, roots
63.0	3.5	3	3	4	7	SS-2			3.5ft: dark gray (10YR4/1), firm, weak HCl reaction
60.5	6.0	5	7	7	14	SS-3			6.0ft: grayish brown (10YR5/2), stiff
58.0	8.5	5	6	8	14	SS-4			8.5ft: light gray (10YR7/2)
55.5	11.0	6	10	18	28	SS-5			11.0ft: light gray (10YR7/2), mottled light yellowish brown (10YR6/4), very stiff, strong HCl reaction, carbonate nodules
53.0	13.5	13	22	30	52	SS-6			53.0 / 13.5 — Clayey SAND (SC), pale brown (10YR6/3), very dense, moist, medium grained, little fines, no HCl reaction
46.5	20.0	10	19	10	29	SS-7			20.0ft: very firm, fine to medium grained, weak HCl reaction
41.5	25.0	4	7	6	13	SS-8			41.5 / 25.0 — FAT CLAY (CH), light yellowish brown (10YR6/4), stiff, moist, few sand, weak HCl reaction
36.5	30.0	3	5	6	11	SS-9			30.0ft: pale brown (10YR6/3)
31.5	35.0	4	4	6	10	SS-10			35.0ft: trace sand
26.5	40.0	4	5	8	13	SS-11			40.0ft: mottled brownish yellow (10YR6/6), strong HCl reaction
21.5	45.0	5	7	8	15	SS-12			45.0ft: light yellowish brown (10YR6/4), weak HCl reaction
16.5	50.0	6	7	8	15	SS-13			50.0ft: light gray (10YR7/1), mottled light yellowish brown (10YR6/4)
11.5	55.0	10	14	14	28	SS-14			11.5 / 55.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2358	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 66.5 ft (NAVD88)	NORTHING 13,402,102 US ft (NAD83)	EASTING 2,611,621 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.5 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray/T. Ellerson	HAMMER (ID) 140 lb. Auto (263048)
DATE STARTED 1/3/08	COMPLETED 1/6/08	CASING DEPTH: N/A	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
10.4					Continued from previous page				
6.5	60.0								Clayey SAND (SC), pale brown (10YR6/3), very firm, moist, fine grained, little fines, weak HCl reaction *(continued)*
1.5	65.0	12	16	31	47	SS-15			60.0ft: dense
-3.5	70.0	11	13	16	29	SS-16			65.0ft: very firm
-8.5	75.0	15	21	26	47	SS-17			70.0ft: dense
-13.5	80.0	23	47	50/0.1	97/0.6	SS-18			75.0ft: very dense, no HCl reaction
-18.5	85.0	5	7	9	16	SS-19			-13.5 80.0 FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, moist, little sand, weak HCl reaction
-23.5	90.0	9	18	21	39	SS-20			-18.5 85.0 Clayey SAND (SC), light gray (10YR7/1), dense, moist, fine grained, little fines, weak HCl reaction
-28.5	95.0	7	8	15	23	SS-21			-23.5 90.0 FAT CLAY (CH), light gray (10YR7/1), mottled brownish yellow (10YR6/6), very stiff, moist, few sand, strong HCl reaction
-33.5	100.0	10	50/0.1		80/0.6	SS-22			95.0ft: hard, carbonate nodules
-43.5	110.0	6	13	19	32	SS-23			100.0ft: very stiff
		23	50/0.1		73/0.6	SS-24			-43.5 110.0 POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), very dense, wet, medium grained, few fines, strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**	
BORING NO. B-2358	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 66.5 ft **(NAVD88)**	**NORTHING** 13,402,102 **US ft (NAD83)**	**EASTING** 2,611,621 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 151.5 ft	**DRILL MACHINE** CME-750	**DRILLER: G. Bray/T. Bray/T. Ellerson**	**HAMMER (ID)** 140 lb. Auto (263048)
DATE STARTED 1/3/08	**COMPLETED** 1/6/08	**CASING DEPTH: N/A**	**BITS USED: 2 7/8" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-45.7					Continued from previous page				
									POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), very dense, wet, medium grained, few fines, strong HCl reaction *(continued)*
-53.5	120.0								-53.9 / 120.4
		9	12	9	21	SS-25A/B			FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, moist, little sand, no HCl reaction
-63.5	130.0								
		10	12	13	25	SS-26			130.0ft: no recovery
-68.5	135.0								-68.5 / 135.0
		50/0.1			50/0.1	SS-27			POORLY GRADED SAND (SP), light gray (10YR 7/1), very dense, wet, fine to medium grained, trace fines, strong HCl reaction, some carbonate nodules
-73.5	140.0								-73.5 / 140.0
		6	9	11	20	SS-28			FAT CLAY (CH), light gray (10YR7/1), very stiff, moist, few sand, strong HCl reaction
-83.5	150.0								-83.7 / 150.2
		12	21	17	38	SS-29A/B			POORLY GRADED SAND (SP), light gray (10YR7/1), dense, wet, trace fines, weak HCl reaction
									-85.0 / 151.5
									Boring Terminated at Elevation -85.0 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By J. Pr Date 6-12-08
Checked By KAW Date 6-12-08

BECHTEL PROJECT NO.: 25352		COUNTY Victoria	GEOLOGIST L. Bisson
SITE DESCRIPTION Exelon COL Project (Victoria Site)		MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. B-2359	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.6 ft (NAVD88)	NORTHING 13,417,295 US ft (NAD83)	EASTING 2,605,500 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.3 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/3/08	COMPLETED 1/4/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
77.6					Ground Surface				77.6 / 0.0
77.6 / 74.1	0.0 / 3.5	2	3	3	6	SS-1			Silty SAND (SM), dark brown (7.5YR3/2), loose, moist, fine to medium grained sand, no HCl reaction, trace roots
71.6	6.0	6	9	10	19	SS-2			Sandy LEAN CLAY (CL), reddish yellow (7.5YR6/6), very stiff, moist, fine to medium grained sand, no HCl reaction, trace carbonate nodules
69.1	8.5	4	4	4	8	SS-3			6.0ft: light yellowish brown (10YR6/4), firm, strong HCl reaction, trace massive and nodular carbonate
66.6	11.0	7	6	9	15	SS-4			LEAN CLAY with sand (CL), light yellowish brown (10YR6/4), stiff, weak HCl reaction
64.1	13.5	7	10	13	23	SS-5			FAT CLAY (CH), light greenish gray (10Y7/1), mottled yellowish brown (10YR5/8), very stiff, fine to medium grained sand, strong HCl reaction
57.8	19.8	4	5	6	11	SS-6			LEAN CLAY with sand (CL), brownish yellow (10YR6/6), to light gray (10YR7/2), stiff, fine to medium grained sand, strong HCl reaction, trace carbonate nodules (64.1 / 13.5 – 62.4 / 15.2)
52.8	24.8	21	19	21	40	SS-7			POORLY GRADED SAND with silt (SP-SM), light brownish gray (2.5Y6/2), dense, moist, fine to medium grained sand, no HCl reaction (visual)
47.8	29.8	17	18	11	29	SS-8			POORLY GRADED SAND (SP), light brownish gray (2.5Y6/2), very firm, wet, fine to medium grained sand, no HCl reaction (visual) (52.8 / 24.8 – 50.1 / 27.5)
42.8	34.8	5	6	7	13	SS-9			FAT CLAY (CH), light greenish gray (10Y7/1), mottled reddish yellow (7.5YR6/8), stiff, moist, fine to medium grained sand, strong HCl reaction, trace black veining
37.8	39.8	6	6	9	15	SS-10			34.8ft: brownish yellow (10YR6/6), mottled light greenish gray (10Y7/1), trace black staining
32.8	44.8	6	9	12	21	SS-11			39.8ft: very stiff, trace massive carbonate (35.6 / 42.0)
27.8	49.8	8	14	26	40	SS-12			Silty SAND (SM), olive yellow (2.5Y6/6), dense, moist, fine grained sand, strong HCl reaction (visual) (27.8 / 49.8)
22.8	54.8	30	22	20	42	SS-13			Clayey SAND (SC), light gray (2.5Y7/2), dense, moist, fine to medium grained sand, strong HCl reaction (visual)
		14	15	15	30	SS-14			54.8ft: brownish yellow (10YR6/6), very firm, wet (visual)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2359	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV. 77.6 ft (NAVD88)	NORTHING 13,417,295 US ft (NAD83)	EASTING 2,605,500 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 151.3 ft	DRILL MACHINE CME-550	DRILLER: L. Carter/C. Hayden	HAMMER (ID) 140 lb. Auto (MEC 03)
DATE STARTED 1/3/08	COMPLETED 1/4/08	CASING DEPTH: N/A	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
21.5					Continued from previous page				
17.8	59.8								Clayey SAND (SC), light gray (2.5Y7/2), dense, moist, fine to medium grained sand, strong HCl reaction (visual) *(continued)*
		21	30	27	57	SS-15 A/B			59.8ft: split sample: SS-15A from 59.8-60.7ft and SS-15B from 60.7-61.3ft
16.9	60.7								
15.6	62.0								FAT CLAY (CH), greenish gray (10Y6/1), to reddish yellow (7.5YR6/8), hard, moist, fine grained sand, strong HCl reaction (visual)
12.8	64.8								POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), moist, medium grained sand, few fines, strong HCl reaction
		9	17	16	33	SS-16			Clayey SAND (SC), olive yellow (2.5Y6/6), mottled greenish gray (10Y6/1), and brownish yellow (10YR6/8), dense, moist, fine to medium grained sand, strong HCl reaction
7.8	69.8								
		8	9	13	22	SS-17			Sandy LEAN CLAY (CL), greenish gray (10Y6/1), very stiff, moist, fine to medium grained sand, weak HCl reaction, trace carbonate nodules
2.8	74.8								74.8ft: split sample: SS-18A from 74.8-76.1ft and SS-18B from 76.1-76.3ft
		8	12	12	24	SS-18 A/B			Clayey silty SAND (SC-SM), light olive gray (5Y6/2), very firm, wet, fine to medium grained sand, no HCl reaction
-2.2	79.8								
		9	13	19	32	SS-19			Clayey SAND (SC), pale brown (10YR6/3), dense, wet, fine to medium grained sand, strong HCl reaction (visual)
-7.2	84.8								
		14	22	24	46	SS-20			POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y7/4), dense, wet, fine to medium grained sand, strong HCl reaction (visual)
-12.2	89.8								
		15	29	34	63	SS-21			89.8ft: light yellowish brown (2.5Y6/3), very dense (visual)
-17.2	94.8								
		18	26	30	56	SS-22			94.8ft: weak HCl reaction (visual)
-22.2	99.8								
		28	33	42	75	SS-23			Clayey SAND (SC), light brownish gray (2.5Y6/2), very dense, wet, fine to medium grained sand, strong HCl reaction (visual)
-27.4	105.0								
-32.2	109.8								FAT CLAY (CH), brownish yellow (10YR6/8), mottled greenish gray (10Y6/1), hard, moist, fine to medium grained sand, strong HCl reaction, interbedded sand lenses, trace carbonate nodules
		7	22	14	36	SS-24			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** L. Bisson	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**	
BORING NO. B-2359	**DRILL METHOD: Mud Rotary**	**SAMPLE METHODS: SPT**	**0 HR.** ND
GROUND SURFACE ELEV. 77.6 ft **(NAVD88)**	**NORTHING** 13,417,295 **US ft (NAD83)**	**EASTING** 2,605,500 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 151.3 ft	**DRILL MACHINE** CME-550	**DRILLER: L. Carter/C. Hayden**	**HAMMER (ID)** 140 lb. Auto (MEC 03)
DATE STARTED 1/3/08	**COMPLETED** 1/4/08	**CASING DEPTH: N/A**	**BITS USED: 2 15/16" Drag Bit**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-34.6					Continued from previous page				
									FAT CLAY (CH), brownish yellow (10YR6/8), mottled greenish gray (10Y6/1), hard, moist, fine to medium grained sand, strong HCl reaction, interbedded sand lenses, trace carbonate nodules *(continued)*
-42.2	119.8								-42.2 — 119.8
		7	8	10	18	SS-25			Sandy FAT CLAY (CH), greenish gray (10Y6/1), mottled strong brown (7.5YR5/8), very stiff, no HCl reaction in clay, trace black staining, trace carbonate grains
									-49.4 — 127.0
-52.2	129.8								Clayey SAND (SC), light gray (2.5Y7/2), very dense, wet, fine to coarse grained sand, fine gravel, weak to strong HCl reaction, trace subangular carbonate nodules (visual)
		15	21	31	52	SS-26			
-62.2	139.8								
		38	50/0.3		88/0.8	SS-27			139.8ft: pale brown (10YR6/3), fine to medium grained sand (visual)
-72.2	149.8								
		21	23	18	41	SS-28			149.8ft: light brownish gray (10YR6/2), dense, fine to coarse grained sand, fine gravel (visual)
									-73.7 — 151.3
									Boring Terminated at Elevation -73.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)	
BORING NO. B-2359UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	NORTHING 13,417,325 US ft (NAD83)	EASTING 2,605,493 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 121.7 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) NA
DATE STARTED 1/22/08	COMPLETED 1/31/08	CASING DEPTH: N/A	BITS USED: 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
77.4					Ground Surface				77.4 0.0
									Begin sampling by Shelby tube
63.9	13.5					UD-1			13.5ft: LEAN CLAY with sand (CL), pale brown (10YR6/3), moist, strong HCl reaction - 1.6ft recovery 15.2ft: POORLY GRADED SAND with silt (SP-SM), yellowish brown (10YR5/6), moist, medium grained sand, trace fines, no HCl reaction
52.4	25.0					UD-2			Changed sample method to Pitcher barrel 25.0ft: POORLY GRADED SAND (SP), pale brown (10YR6/3), wet, medium grained sand, trace fines, no HCl reaction - 1.1ft recovery 27.5ft: FAT CLAY (CH), light gray (10YR7/1), moist, weak HCl reaction
46.9	30.5					UD-3			Changed sample method to Shelby tube 30.8ft: FAT CLAY (CH), light gray (10YR7/1), mottled brownish yellow (10YR6/6), moist, fine to coarse grained sand, strong HCl reaction - 1.7ft recovery
42.4	35.0					UD-4			35.0ft: FAT CLAY (CH), light gray (10YR7/1), moist, weak HCl reaction - 1.5ft recovery
37.4	40.0					UD-5			40.0ft: FAT CLAY (CH), pale brown (10YR6/3), moist, no HCl reaction - 1.7ft recovery
27.4	50.0					UD-6			Changed sample method to Pitcher barrel 50.0ft: Clayey SAND (SC), pale brown (10YR6/3), mottled with light gray (10YR7/1), moist, weak HCl reaction - 0.5ft recovery
22.4	55.0					UD-7			55.0ft: Sandy SILT (ML), light gray (10YR7/1), moist,

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2359UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	NORTHING 13,417,325 US ft (NAD83)	EASTING 2,605,493 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 121.7 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) NA
DATE STARTED 1/22/08	COMPLETED 1/31/08	CASING DEPTH: N/A	BITS USED: 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
21.2					Continued from previous page				
									fine grained sand, trace fines, strong HCl reaction - 1.0ft recovery
15.4	62.0					UD-8			Changed sample method to Shelby tube 62.0ft: POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), moist, medium grained sand, few fines, strong HCl reaction - 0.9ft recovery
12.4	65.0					UD-9			Changed sample method to Pitcher barrel 65.0ft: Clayey SAND (SC), pale brown (10YR6/3), wet, medium grained sand, little fines, strong HCl reaction - 0.3ft recovery
7.3	70.0					UD-10			Changed sample method to Shelby tube 70.0ft: FAT CLAY (CH), light gray (10YR7/1), mottled yellowish brown (10YR5/6), moist, no HCl reaction - 1.7ft recovery
0.3	77.0					UD-11			77.0ft: Silty, clayey SAND (SC-SM), light gray (10YR7/1), moist, fine to medium grained sand, weak HCl reaction - 0.9ft recovery
-2.7	80.0					UD-12			80.0ft: Clayey SAND (SC), pale brown (10YR6/3), moist, fine gravel, weak HCl reaction - 1.0ft recovery
-7.7	85.0					UD-13			Changed sample method to Pitcher barrel 85.0ft: POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), wet, medium to coarse grained sand, trace fines, weak HCl reaction - 0.5ft recovery
-11.2	88.5					UD-14			88.5ft: Sandy SILT (ML), pale brown (10YR6/3), wet, fine to coarse grained sand, trace fines, weak HCl reaction (visual) - 1.1ft recovery
-17.7	95.0					UD-15			95.0ft: POORLY GRADED SAND with clay (SP-SC), pale brown (10YR6/3), wet, medium to coarse grained sand, few fines, strong HCl reaction - 0.5ft recovery
-20.7	98.0					UD-16			98.0ft: POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/1), moist, fine grained sand, trace fines, weak HCl reaction - 0.5ft recovery
-32.7	110.0					UD-17			Changed sample method to Shelby tube 110.0ft: Silty SAND (SM), pale brown (10YR6/3), mottled yellowish brown (10YR5/6), moist, fine to

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST B. Taylor	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. B-2359UD	DRILL METHOD: Mud Rotary	SAMPLE METHODS: UD	0 HR. ND
GROUND SURFACE ELEV. 77.4 ft (NAVD88)	NORTHING 13,417,325 US ft (NAD83)	EASTING 2,605,493 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 121.7 ft	DRILL MACHINE CME-750	DRILLER: G. Bray/T. Bray	HAMMER (ID) NA
DATE STARTED 1/22/08	COMPLETED 1/31/08	CASING DEPTH: N/A	BITS USED: 6" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-34.9					Continued from previous page				
-35.2	112.5					UD-18			coarse grained sand, fine gravel, weak HCl reaction - 0.7ft recovery
-36.7	114.0					UD-19			112.5ft: Clayey SAND (SC), yellowish brown (10YR5/6), moist, fine to medium grained sand, strong HCl reaction - 0.6ft recovery Changed sample method to Pitcher barrel 114.0ft: Silty SAND (SM), light gray (10YR7/1), moist, fine to medium grained sand, few fines, weak HCl reaction (visual) - 1.3ft recovery
-42.7	120.0					UD-20			Changed sample method to Shelby tube 120.0ft: FAT CLAY (CH), light gray (10YR7/1), moist, weak HCl reaction - 1.1ft recovery
									-44.4 121.7 Boring Terminated at Elevation -44.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

Test Pits Logs

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GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**
BORING NO. TP-2310 / **DRILL METHOD:** Back Hoe	**SAMPLE METHODS:** Hand	**0 HR.** ND
GROUND SURFACE ELEV. 75.6 ft (NAVD88) **NORTHING** 13,406,615 US ft (NAD83)	**EASTING** 2,601,359 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 10.0 ft / **DRILL MACHINE** John Deere	**DRILLER:** D. Rhodes	**HAMMER (ID)** NA
DATE STARTED 1/23/08 / **COMPLETED** 1/23/08	**CASING DEPTH:** N/A	**BITS USED:** N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
75.6					Ground Surface				75.6	0.0
75.6	0.0					B1, J1			Sandy LEAN CLAY (CL), very dark grayish brown (2.5Y3/2), moist, some fines, no HCl reaction, organics,	
70.6	5.0					J2			70.6	5.0
						B2, J3, J4			Silty, clayey SAND (SC-SM), brown to pale yellow (2.5YR7/3), dry to moist, fine grained sand, little fines, no HCl reaction 9.0ft: pale yellow (2.5Y7/4), strong HCl reaction, carbonate nodules	
									65.6	10.0

Note: Strata depicted on this log are adapted with B-2310. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
5.0ft: J2
7.5ft: J3
10.0ft: J4
0.0 to 5.0ft: Bulk1
5.0 to 10.0ft: Bulk 2
Boring Terminated at Elevation 65.6 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

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GEOTECHNICAL BORING LOG

Prepared By JPR Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. TP-2314 / DRILL METHOD: Back Hoe	SAMPLE METHODS: Hand	0 HR. ND
GROUND SURFACE ELEV. 74.7 ft (NAVD88) / NORTHING 13,413,935 US ft (NAD83)	EASTING 2,607,800 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 10.0 ft / DRILL MACHINE John Deere	DRILLER: D. Rhodes	HAMMER (ID) NA
DATE STARTED 1/22/08 / COMPLETED 1/22/08	CASING DEPTH: N/A	BITS USED: N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
74.7					Ground Surface				74.7	0.0
74.7	0.0					B1/J1			POORLY GRADED SAND (SP), dark grayish brown (10YR4/2), moist, fine sand, organics, no HCl reaction	
									72.7	2.0
									Sandy FAT CLAY (CH), gray (5Y5/1), moist, no HCl reaction	
69.7	5.0					J2			69.7	5.0
						B2			FAT CLAY (CH), pale yellow (2.5Y7/3), moist, fine grained sand, carbonate nodules 6.0ft: light yellowish brown (10YR6/4), trace sand, weak HCl reaction	
						J3				
						J4			64.7	10.0

Note: Strata depicted on this log are adapted with B-2314PL. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
5.0ft: J2
7.0ft: J3
10.0ft: J4
0.0 to 2.0ft: Bulk 1
5.0 to 10.0ft: Bulk 2
Boring Terminated at Elevation 64.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

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GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6·12·08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**
BORING NO. TP-2317 / **DRILL METHOD:** Back Hoe	**SAMPLE METHODS:** Hand	**0 HR.** ND
GROUND SURFACE ELEV. 76.8 ft (NAVD88) / **NORTHING** 13,410,595 US ft (NAD83)	**EASTING** 2,600,492 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 10.0 ft / **DRILL MACHINE** John Deere	**DRILLER:** D. Rhodes	**HAMMER (ID)** NA
DATE STARTED 1/22/08 / **COMPLETED** 1/22/08	**CASING DEPTH:** N/A	**BITS USED:** N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
76.8					Ground Surface				76.8	0.0
76.8	0.0					B1/ J1			Sandy LEAN CLAY (CL), very dark gray (10YR3/1), moist, some sand, organics	
71.8	5.0					J2			71.8 3.8ft: gray (5YR4/1), trace fine gravel, strong HCl reaction	5.0
						B2/ J3			LEAN CLAY with sand (CL), gray (5YR4/1), moist, strong HCl reaction 7.0ft: pale yellow (2.5Y7/4), weak HCl reaction, carbonate nodules 8.5ft: Hard scraping with back hoe	
						J4			66.8 10.0ft: light yellowish brown (2.5Y6/3), strong HCl reaction	10.0

Note: Strata depicted on this log are adapted with B-2317. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
5.0ft: J3
10.0ft: J4
3.0 to 5.0ft: Bulk 1
5.0 to 10.0ft: Bulk 2
Boring Terminated at Elevation 66.8 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

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GEOTECHNICAL BORING LOG

Prepared By JPF Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777		**GROUND WATER (ft)**
BORING NO. TP-2319	**DRILL METHOD:** Back Hoe	**SAMPLE METHODS:** Hand	**0 HR.** ND
GROUND SURFACE ELEV. 74.3 ft (NAVD88)	**NORTHING** 13,403,607 US ft (NAD83)	**EASTING** 2,603,038 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 10.0 ft	**DRILL MACHINE** John Deere	**DRILLER:** D. Rhodes	**HAMMER (ID)** NA
DATE STARTED 1/20/08	**COMPLETED** 1/20/08	**CASING DEPTH:** N/A	**BITS USED:** N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
74.3					Ground Surface				74.3	0.0
						J1			POORLY GRADED SAND (SP), brown (7.5YR4/3), moist, no fines, fine grained sand, organics, no HCl reaction	
71.3	3.0					J2			72.0	2.3
						B2			Clayey SAND (SC), light yellowish brown (10YR6/4), moist, some fines, no HCl reaction, ferrous staining	
						J3			5.0ft: light brownish gray (2.5Y6/2), weak HCl reaction, carbonate nodules	
									65.8	8.5
						J4			Sandy LEAN CLAY (CL), olive yellow (2.5Y6/6), moist, fine to medium grained sand, fine gravel, no HCl reaction	
									64.3	10.0

Note: Strata depicted on this log are adapted with B-2319. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
6.5ft: J3
10.0ft: J4
0.0 to 2.0ft: Bulk1
3.0 to 10.0ft: Bulk2
Boring Terminated at Elevation 64.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

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GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08
Checked By KAW Date 6·12·08
SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. TP-2320	DRILL METHOD: Back Hoe	SAMPLE METHODS: Hand	0 HR. ND
GROUND SURFACE ELEV. 71.4 ft (NAVD88)	NORTHING 13,407,599 US ft (NAD83)	EASTING 2,606,825 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 10.0 ft	DRILL MACHINE John Deere	DRILLER: D. Rhodes	HAMMER (ID) NA
DATE STARTED 1/19/08	COMPLETED 1/19/08	CASING DEPTH: N/A	BITS USED: N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
71.4					Ground Surface				71.4	0.0
						J1			Sandy LEAN CLAY (CL), dark gray (5YR5/1), moist, some sand, organics, no HCl reaction	
67.4	4.0									
66.4	5.0					B1A/ B1B/J2			66.4 3.5ft: light brownish gray (10YR6/2), carbonate nodules, weak HCl reaction	5.0
						B2A/ B2B/ J3			5.0ft: LEAN CLAY with sand (CL), light brownish gray (10YR6/2), moist, little sand, some carbonate, weak HCl reaction	
						J4			61.4 9.0ft: olive yellow (2.5YR6/6), moist, strong HCl reaction	10.0

Note: Strata depicted on this log are adapted with B-2320. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
5.0ft: J3
9.0ft: J4
5.0ft: Bulk1
5.0 to 10.0ft: Bulk2
Boring Terminated at Elevation 61.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

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GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. TP-2321	DRILL METHOD: Back Hoe	SAMPLE METHODS: Hand	0 HR. ND
GROUND SURFACE ELEV. 70.8 ft (NAVD88)	NORTHING 13,410,972 US ft (NAD83)	EASTING 2,610,031 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 10.0 ft	DRILL MACHINE John Deere	DRILLER: D. Rhodes	HAMMER (ID) NA
DATE STARTED 1/30/08	COMPLETED 1/30/08	CASING DEPTH: N/A	BITS USED: N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
70.8					Ground Surface				70.8	0.0
						J1			Sandy LEAN CLAY (CL), black (10YR2/1), moist, some sand, organics, no HCl reaction (visual)	
66.8	4.0					B1 J2			67.6 FAT CLAY with sand (CH), dark gray (2.5Y4/1), moist, little sand, no to weak HCl reaction	3.2
64.3	6.5					B2 J3			64.3 LEAN CLAY with sand (CL), light brown gray (10YR6/2), moist, little sand, weak HCl reaction, few carbonate nodules	6.5
						J4			62.3 FAT CLAY (CH) yellow (10YR7/6), very stiff, moist, fine to medium grained sand, trace carbonate nodules, weak HCl reaction, black staining	8.5
									60.8	10.0

Note: Strata depicted on this log are adapted from B-2321. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
7:0ft: J3
10.0ft: J4
4.0 to 5.0ft: Bulk1
6.5 to 10.0ft: Bulk2
Boring Terminated at Elevation 60.8 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDX Date 6-12-08

Checked By KAW Date 6-12-08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**
BORING NO. TP-2332 / **DRILL METHOD:** Back Hoe	**SAMPLE METHODS:** Hand	**0 HR.** ND
GROUND SURFACE ELEV. 78.2 ft (NAVD88) / **NORTHING** 13,414,422 US ft (NAD83)	**EASTING** 2,603,752 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 10.0 ft / **DRILL MACHINE** John Deere	**DRILLER:** D. Rhodes	**HAMMER (ID)** NA
DATE STARTED 1/22/08 / **COMPLETED** 1/22/08	**CASING DEPTH:** N/A	**BITS USED:** N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
78.2					Ground Surface				78.2	0.0
78.2	0.0					B1 J1			Silty SAND (SM), brown (7.5YR7/2), moist, fine grained sand, organics, no HCl reaction	
									76.2	2.0
75.2	3.0								75.7 Sandy FAT CLAY (CH), light olive brown (2.5Y5/3), moist, some sand, no HCl reaction	2.5
						B2			Silty SAND (SM), light yellowish brown (2.5Y6/4), moist, little fines, fine grained sand, no HCl reaction, orange and red staining	
						J2				
						J3				
						J4			68.2 9.0ft: very pale brown (10YR7/4), dry	10.0

Note: Strata depicted on this log are adapted with B-2332. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
5.0ft: J2
7.0ft: J3
9.0ft: J4
0.0 to 2.0ft: Bulk1
3.0 to 10.0ft: Bulk 2
Boring Terminated at Elevation 68.2 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPF Date 6-12-08
Checked By KAW Date 6-12-08
SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**
BORING NO. TP-2334 / **DRILL METHOD:** Back Hoe	**SAMPLE METHODS:** Hand	0 HR. ND
GROUND SURFACE ELEV. 72.4 ft (NAVD88) / **NORTHING** 13,400,632 US ft (NAD83)	**EASTING** 2,606,110 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 10.0 ft / **DRILL MACHINE** John Deere	**DRILLER:** D. Rhodes	**HAMMER (ID)** NA
DATE STARTED 1/20/08 / **COMPLETED** 1/20/08	**CASING DEPTH:** N/A	**BITS USED:** N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
72.4					Ground Surface				72.4	0.0
70.4	2.0					J1			70.9 Silty SAND (SM), very dark grayish brown (10YR3/2), moist, fine grained sand, organics, no HCl reaction	1.5
						B1A/B1B			Sandy LEAN CLAY (CL), light brownish gray (10YR6/2), moist, some sand, no HCl reaction, ferrous staining	
67.4	5.0					J2			67.4 3.0ft: trace carbonate nodules (visual)	5.0
						B2A/B2B			Clayey SAND (SC), light pale brown (10YR6/2), moist, weak HCl reaction, some fines, carbonate increases with depth	
						J3				
						J4			10.0ft: strong HCl reaction 62.4	10.0

Note: Strata depicted on this log are adapted with B-2334. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
7.0ft: J3
10.0ft: J4
2.0 to 5.0ft: Bulk1
5.0 to 10.0ft: Bulk2
Boring Terminated at Elevation 62.4 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JDZ Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352		**COUNTY** Victoria	**GEOLOGIST** M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)		**MACTEC PROJECT NO.: 6468-07-1777**	**GROUND WATER (ft)**
BORING NO. TP-2335	**DRILL METHOD: Back Hoe**	**SAMPLE METHODS: Hand**	**0 HR.** ND
GROUND SURFACE ELEV. 66.8 ft **(NAVD88)**	**NORTHING** 13,404,164 **US ft (NAD83)**	**EASTING** 2,610,402 **US ft (NAD83)**	**24 HR.** ND
TOTAL DEPTH 10.0 ft	**DRILL MACHINE** John Deere	**DRILLER: D. Rhodes**	**HAMMER (ID)** NA
DATE STARTED 1/20/08	**COMPLETED** 1/20/08	**CASING DEPTH: N/A**	**BITS USED: N/A**

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
66.8					Ground Surface				66.8	0.0
66.8	0.0					B1A/B1B J1 J2			FAT CLAY with sand (CH), very dark gray (7.5YR3/1), moist, little sand, no HCl reaction, organics (visual)	
62.8	4.0					B2A/B2B J3			63.3	3.5
									Sandy LEAN CLAY (CL), pale yellow (2.5Y8/3),moist, some sand, ferrous staining, trace carbonate nodules	
58.8	8.0					B3A/B3B J4			58.8	8.0
									Silty SAND (SM), pale yellow (2.5Y7/3), moist, fine grained sand, no fines, no HCl reaction	
									56.8	10.0

Note: Strata depicted on this log are adapted with B-2335. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
2.0ft: J1
4.0ft: J2
6.0ft: J3
10.0ft: J4
0.0 to 4.0ft: Bulk1
4.0 to 8.0ft: Bulk2
8.0 to 10ft: Bulk 3
Boring Terminated at Elevation 56.8 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

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GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey	
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777		GROUND WATER (ft)
BORING NO. TP-2337	DRILL METHOD: Back Hoe	SAMPLE METHODS: Hand	0 HR. ND
GROUND SURFACE ELEV. 66.9 ft (NAVD88)	NORTHING 13,407,266 US ft (NAD83)	EASTING 2,614,865 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 10.0 ft	DRILL MACHINE John Deere	DRILLER: D. Rhodes	HAMMER (ID) NA
DATE STARTED 1/20/08	COMPLETED 1/20/08	CASING DEPTH: N/A	BITS USED: N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
66.9					Ground Surface				66.9	0.0
						J1			POORLY GRADED SAND with clay (SP-SC), very dark gray (10YR3/1), moist to wet, fine grained sand, few fines, organics, no HCl reaction 3.5ft: gray (2.5Y5/1), trace fine gravel, trace carbonate nodules	
62.9	4.0								63.4	3.5
						B1/ J2			Sandy LEAN CLAY (CL), gray (2.5Y5/1), moist, little sand, carbonate nodules	
									60.9	6.0
						J3			Clayey SAND (SC), very pale brown (10YR7/3), moist, fine grained sand, little fines, little carbonate nodules 8.5ft: mottled yellow (10YR7/8)	
57.4	9.5								58.4	8.5
						B2/J4			LEAN CLAY with sand (CL), mottled light gray (5Y7/2), and brownish yellow (10YR6/6), moist, some sand, weak HCl reaction, carbonate nodules	
									56.9	10.0

Note: Strata depicted on this log are adapted with B-2337. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
7.0ft: J3
10.0ft: J4
4.0 to 5.0ft: Bulk1
5.0 to 10.0ft: Bulk2
Boring Terminated at Elevation 56.9 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPZ+ Date 6-12-08

Checked By KAW Date 6.12.08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	**COUNTY** Victoria	**GEOLOGIST** M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	**MACTEC PROJECT NO.:** 6468-07-1777	**GROUND WATER (ft)**
BORING NO. TP-2351 / **DRILL METHOD:** Back Hoe	**SAMPLE METHODS:** Hand	**0 HR.** ND
GROUND SURFACE ELEV. 63.9 ft (NAVD88) / **NORTHING** 13,398,902 US ft (NAD83)	**EASTING** 2,613,286 US ft (NAD83)	**24 HR.** ND
TOTAL DEPTH 10.0 ft / **DRILL MACHINE** John Deere	**DRILLER:** D. Rhodes	**HAMMER (ID)** NA
DATE STARTED 1/21/08 / **COMPLETED** 1/21/08	**CASING DEPTH:** N/A	**BITS USED:** N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
63.9					Ground Surface				63.9	0.0
63.9	0.0					B1 J1			Sandy LEAN CLAY (CL), dark gray (10YR4/1), moist, some sand, organics, no HCl reaction (visual)	
60.4	3.5								60.4	3.5
						B2 J2			Clayey SAND (SC), pale yellow (2.5Y8/3), moist, fine grained sand, little fines, no HCl reaction	
						J3			6.5ft: yellow (10YR7/8), trace clay	
						J4			53.9 9.0ft: carbonate nodules	10.0

Note: Strata depicted on this log are adapted with B-2351. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
6.0ft: J3
10.0ft: J4
0.0 to 3.5ft: Bulk1
3.5 to 10.0ft: Bulk2
Boring Terminated at Elevation 53.9 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

MACTEC

GEOTECHNICAL BORING LOG

Prepared By JPJ Date 6-12-08
Checked By KAW Date 6.12.08

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25352	COUNTY Victoria	GEOLOGIST M. Harvey
SITE DESCRIPTION Exelon COL Project (Victoria Site)	MACTEC PROJECT NO.: 6468-07-1777	GROUND WATER (ft)
BORING NO. TP-2352	DRILL METHOD: Back Hoe / SAMPLE METHODS: Hand	0 HR. ND
GROUND SURFACE ELEV. 63.0 ft (NAVD88)	NORTHING 13,402,480 US ft (NAD83) / EASTING 2,617,532 US ft (NAD83)	24 HR. ND
TOTAL DEPTH 10.0 ft	DRILL MACHINE John Deere / DRILLER: D. Rhodes	HAMMER (ID) NA
DATE STARTED 1/31/08	COMPLETED 1/31/08 / CASING DEPTH: N/A	BITS USED: N/A

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
63.0					Ground Surface				63.0	0.0
						J1			Sandy LEAN CLAY (CL), very dark gray (10YR3/1), moist, some sand, organics, no HCl reaction	
59.0	4.0					B1/J2			2.5ft: dark gray (2.5Y4/1), mottled brownish yellow (10YR6/8), carbonate nodules	
									57.2	5.8
						J3			LEAN CLAY with sand (CL), brownish yellow (10YR6/6), moist, fine to coarse grained sand, fine gravel, carbonate nodules, strong HCl reaction	
									54.4	8.6
53.5	9.5					B2/J4			Sandy LEAN CLAY (CL), brownish yellow (10YR6/6), moist, fine to coarse grained sand, ferrous staining, carbonate nodules, strong HCl reaction	
									53.0	10.0

Note: Strata depicted on this log are adapted with B-2352. Bulk samples are composites of soil collected from the approximate sample-depth(s) listed below:
1.0ft: J1
4.0ft: J2
7.0ft: J3
10.0ft: J4
4.0 to 5.0ft: Bulk1
10.0ft: Bulk2
Boring Terminated at Elevation 53.0 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08